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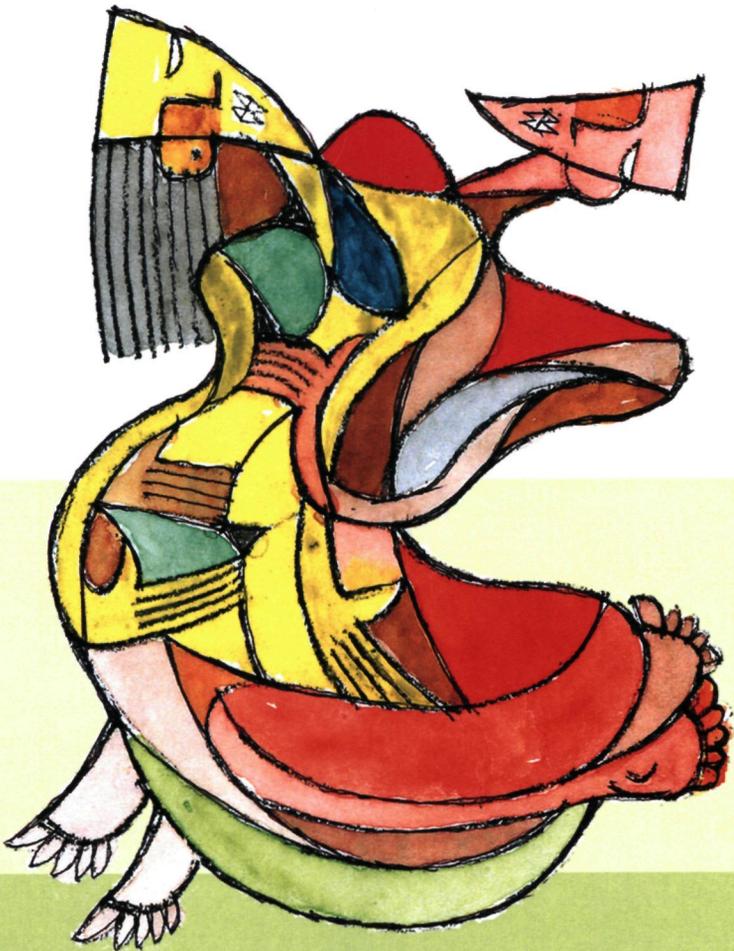
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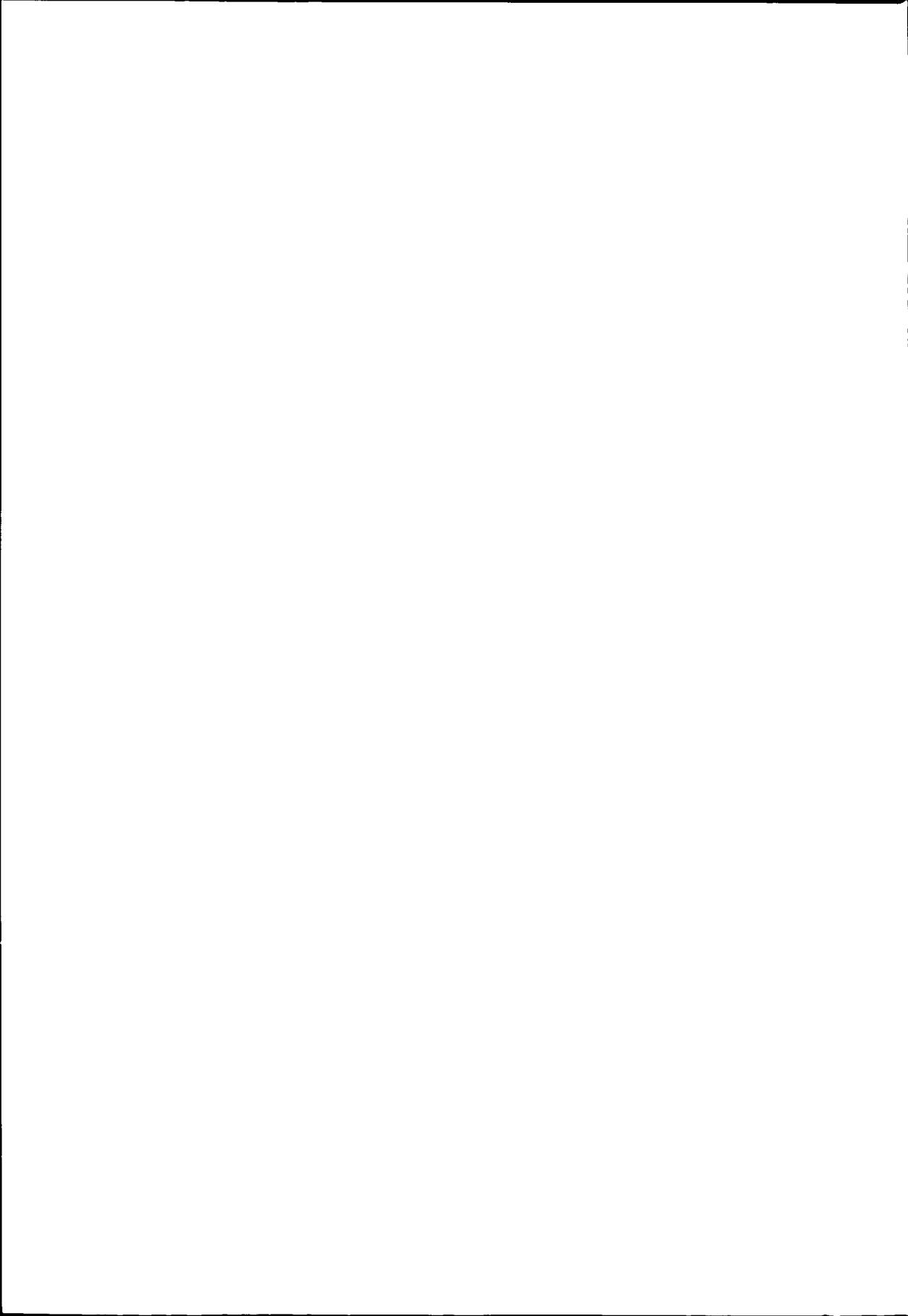
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■■■ | **INDONESIAN ADOLESCENT SEXUALITY
AND ROMANTIC RELATIONSHIPS**

exploratory studies



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Indonesian adolescent sexuality and romantic relationships: Exploratory studies

Een wetenschappelijke proeve op het gebied van de
Sociale Wetenschappen

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**INDONESIAN ADOLESCENT SEXUALITY
AND ROMANTIC RELATIONSHIPS:
Exploratory Studies**

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**Indonesian Adolescent Sexuality and Romantic Relationships:
Exploratory Studies**

Chapter 1:

**SEXUALITY AND ROMANTIC RELATIONSHIPS OF INDONESIAN
ADOLESCENTS**

**Exploratory Studies Contributing to Reproductive Health Education in Central
Java**

Chapter 1

SEXUALITY AND ROMANTIC RELATIONSHIPS OF INDONESIAN ADOLESCENTS

Exploratory Studies Contributing to Reproductive Health Education in Central Java

Rationale

*Kêlek, kêlek, biyung sira aneng êndi
Enggal tulungana
Awakku kêcêmplung warih
Gulagêpan wus meh pêjah*
(Maskumambang, NN)

Chiap, chiap, where are you, mom,
Help me, hurry up!
I am plunged into water
Bulp, bulp, I'm dying

This quote is from a Javanese traditional song, *Maskumambang* which is a type of *Macapat*. It describes a small chicken crying and calling her mother to come and help her. The chicken is plunged into water and, because she can not swim, is almost dying.

This song, in my opinion, illustrates the situation of young people, especially in Indonesia, when they are involved in unwanted pregnancy as a result of premarital sex. Most of adolescent pregnancy in Indonesia happens in a romantic relationship context. The situation is much worse for the girl involved. She often has to bear all the burdens alone: psychological problems, physical burdens, and many other socio-economical burdens. Moreover, if she is a high school student or at a lower level of education, she is expelled from school. She has to stay at home, sometimes is married without any preparation, has (very) limited access to education, and an unpromising future. She is, like a small chicken in the water, in a situation that “traps” her. She can do little else except survive and seek help to get out of the entrapping situation.

Adolescent pregnancy is one of several problems related to adolescent reproductive health. Some problems in the area of reproductive health in Indonesia are unwanted pregnancy, unsafe abortion, and sexually transmitted infections (STI), including HIV (Kilbourne-Brook, 2000). However, well documented data on adolescent reproductive health, especially in Indonesia, are scarce. In analysing the availability and quality of data on reproductive health in Indonesia, Utomo (2001) found that not much data on reproductive health was available and the available data lacked quality. Utomo's review also did not mention data concerning adolescent reproductive or sexual health. Although there are no official data, adolescent pregnancy and unsafe abortion in Indonesia is apparently increasing. The General Director of Public Health, Department of Social Welfare and Health has stated that there are about 2.3 million abortion cases among adolescents in Indonesia (Kompas Cyber Media, 2001). According to Indonesian Reproductive Health Profile 2003 (Ministry Of Health, 2003) there are many young woman who have children before they reach the age of 20 years. The Profile also mentions that unsafe abortion is a major cause of maternal death for 15-19 year old women.

Adolescent reproductive health problems are associated, although not exclusively, with sexual behaviours. Sexual behaviour itself consists of two main aspects, i.e. sexuality and relationships with others. Sexuality in the form of biological development has to be dealt with by adolescents starting with puberty. At the same time, adolescents are experiencing changes in their relationships with others (e.g. Steinberg, 2002). Interpersonal development moves from friendships to dating relationships (e.g. Zimmer-Gembeck, Siebenbruner, & Collins, 2001). Adolescents may have same-sex friends only, may have both same- and opposite-sex friends but no dating relationships, or may be involved in casual and short-term

dating relationships casually or in long-term dating or intimate relationships. When involved in intimate relationships, young people have to learn strategies for starting and maintaining these relationships (Jackson, Jacob, Landman-Peeters, & Lanting, 2001; Nieder & Seiffge-Krenke, 2001). Different coping strategies may be used to deal with different problematic situations in the relationships. In some cases difficulties occur in maintaining existing friendships while involved in a new romantic relationship (Roth & Parker, 2001). Weisfeld and Woodward (2004) pointed out that there are many problematic and difficult situations related to romantic relationships among adolescents. Using animal behaviours as an analogy, they identified problems related to competitiveness, mate selection, pair bonding, promiscuity and premarital pregnancy.

In their effort to understand their own development, adolescents may learn sexuality by themselves, often discreetly, exchanging information and sharing experiences with their friends. They may seek answers to questions from (perceived) competent figures, or from anonymous sources (magazines, newspapers, and audio visual media). While young people learn about sexuality and interpersonal relationships from various sources, they do have some preferences (Hatmadji & Rochani, 1995; Wellings & Field, 1996). Adolescents mostly prefer to find or exchange information about sexuality with their friends, who are likely to possess a similar (low) level of knowledge about sexuality. Older figures are not the main preference because they are usually judgmental about adolescent behaviours (Adioetomo, et al., 1999). Some local and national mass media in Indonesia provide facilities for adolescent consultation, with capable consultants, and sometimes in cooperation with institutions working in reproductive health area.

Adolescent sexuality has been a focus of attention for many years in Indonesia. Research and intervention programs have been carried out in many institutions. However, their impact on adolescent health has not been as intended. Hatmadji and Rochani (1995) found out that adolescent knowledge about reproductive processes and HIV is inadequate. Adioetomo et al. (1999) reported that parents did not prepare their children for reproductive health issues of adolescence because the parents themselves lacked reproductive health knowledge and were inhibited by various taboos, while teachers admitted that students nowadays are not as “polite and sincere” as they used to be. Similar to a finding of Adioetomo and colleagues (1999), Beni (2005) also found that the family, especially the parents, is a barrier to effective HIV/AIDS prevention programs in Indonesia. The barriers include cultural constraints, lack of knowledge and awareness about the problem, and lack of support and encouragement from related institutions, including government. According to Djaja, Surjadi, and Susilawati (2002) the main reproductive health problems among Indonesian adolescents are lack of information about adolescent reproductive health, behaviours, health services, and regulations. The main problems include controversies over sex education, risky sexual behaviours, unwanted pregnancy, and schooling for pregnant adolescents. Adioetomo et al. (1999) also found that the problems on adolescent reproductive health did not differ between urban and rural areas.

To deal with the reproductive health problems, there have been some government and NGO programs in collaboration with international bodies. Although some of the institutions initially focus their program on HIV/AIDS prevention, they also give attention to adolescent reproductive health in general. Most of the programs are non-obligatory and implemented outside school. In cooperation with some agencies a number of books about adolescent reproductive health have been published. Most of publications are meant for facilitators, teachers, or parents (e.g. Moeliono, 2003; Happy & Herisanto, no date; Tandjung et al., 2004). There are also books about sexuality and interpersonal relationships available in book stores, some of which are translations of foreign language books (e.g. Darvill & Powell, 2002; Mathews, 1996).

In the Health Development Plan toward Healthy Indonesia 2010 set up in 1999 by the Ministry of Health, Republic of Indonesia (1999) the areas of family health, reproductive health, and family planning is one of the ten prioritised programs. Included in this program is adolescent reproductive health. The late Dr. Yaumul A. Achir, professor in Psychology at the University of Indonesia, and the chief of The National Family Planning Coordination Board (BKKBN), stated that BKKBN had been planning to develop reproductive health education for teenagers since 2000 (The Jakarta Post, 2002). This education was intended to support the family planning program and reduce maternal mortality. Although there have been public concern and publications, sexuality education (often called reproductive health education, *pendidikan kesehatan reproduksi*, in Indonesia) has not been included in regular school programs. Some reasons for this are (a) that talking about sex is regarded by many people, especially older people, as taboo, (b) the fear that such an education will encourage the students to engage in forbidden (premarital) sex, (c) no capable facilitators are available in schools, (d) there is no political will from involved parties, especially schools, parents, government, and (e) the available resources are not easily implemented because they are impracticable or do not fit actual needs. Students will be more motivated to participate in educational programs which answer their questions and fits their needs. If the sexuality or reproductive health education does not match their needs, then the impact will be very limited (Wight, Williamson, & Henderson, 2006).

To break through the barriers to sexuality education in schools and to develop programs which match adolescents' needs, it is important to involve as many parties as possible in thinking about the situation of adolescents and their needs for such an education. This important first step has been taken in the process of writing this dissertation. Questions which need to answer are (a) How do adolescents in Indonesia deal with interpersonal relationships and the related sexuality problems?, and (b) What are the adolescents' needs for support in constructing sexually healthy interpersonal relationships?

Design of the Study

For practical reasons the research was carried out in Central Java, Indonesia. This research on the needs for sexuality education among high school students consists of a pilot study and two main studies. The *pilot study* focused primarily on developing questionnaires for the main survey. Some scales and open-ended questions were administered to students and teachers of a senior high school. The first study is a *large scale survey* which was conducted in six regions in Central Java. The selection of the regions was based on the rank of maternal mortality ratio (MMR), as MMR can be used as an indicator of reproductive health status, and this study is related to another study on safe motherhood. The objectives of this survey, with adolescents as the main source of information, are (a) to obtain information about the sexual situation of Central Java adolescents and how they deal with their sexuality and interpersonal situations, and (b) to get some idea of how to develop sexuality education for the young people. The participants of this survey were senior high school students and their teachers, parents who have adolescent child or children, and other young adults. School teachers and parents were recruited for this study because they are "living together" with adolescents and are involved parties in adolescent life. Other participants are non-married young adults who were expected to give "a look from the future" (Shulman & Kipnis, 2001) on adolescent life.

A self-completion instrument was used for data collection. The instrument consisted of questions about (a) sexual situations of adolescents, (b) coping with problems in interpersonal relationships, (c) self-concept, (d) self-efficacy in interpersonal relationships, (e) preferred sources of information about sexuality, (f) preferred characteristics of information sources, (g) the importance of information or training related to sexual

development, and (h) the importance of information and training related to interpersonal development. Of all the topics covered, only topics (e) to (h) were asked of students and all other participants. Some items of topic (a) were also asked of both students and non-student participants. Some demographic information, such as region, school type, age, gender, and religious affiliation, was also collected from all participants.

A second study was conducted to provide more detail about and a better description of intimate relationship among adolescents. This study takes a closer look at adolescent intimate relationships. A number of romantic or dating couples were recruited for interview. It was thought that such a "micro-scale" study would provide a better understanding of the needs for education in relation to adolescent sexuality and interpersonal (intimate) relationships. Questions covered in this study included the meanings of romantic or dating relationships (*pacaran*), dating activities, the course of relationships, feelings about dating relationships, coping with relationship problems, and predictions of the relationship outcome. Both male and female partners in the relationships were interviewed.

Structure of Dissertation

This dissertation has four parts, namely (a) introduction (b) methodological report of the study, (c) results, and (d) practical implications. Those parts are divided into chapters.

Following this introduction (Chapter 1, Part I) is a methodological report of the whole project (Chapter 2, Part II). This chapter includes a thorough explanation of the research questions, participants and sampling, instruments, and research procedure. The report on the methods of Study I is followed by that of Study II.

The next part (Part III) presents the results of the research. Chapter 3 summarizes the results of the survey of sexual situations of Central Java adolescents. The sexual situations include reports on intimate relationships, knowledge, and problems with sexual development. Correlations among these situations and comparisons between groups of respondents are also presented. Chapter 4 describes the sexual situation at a micro level, based on interviews of dating couples in Study II. This chapter presents the practice of *pacaran* (dating relationship) of adolescents, how they give meanings to their relationships, how they go with the relationship, how they feel about the relationships, and their expectation about the future progress of the relationship.

The sexual situations are assumed to be related to the personal resources of the persons involved. The resources measured in this study are coping strategies, self-concept and self-efficacy. Sexuality and interpersonal relationships often put adolescents into problematic situations which require coping strategies. This research focused on, the coping behaviours related to interpersonal difficulties or problems, including coping with dyadic situations covered in Study II. The self-concept is a multidimensional self-concept while the self-efficacy covered in this research had specifically to do with self-efficacy in interpersonal relationships. The results of the research on these personal resources are reported in Chapter 5, including summaries of each personal resource separately and the relationships among the resources.

Chapter 6 presents the interrelations between the sexual situations and the personal resources. On the basis of the working model discussed in Chapter 2, several models illustrating the relations between sexual situations and personal resources are proposed and tested.

Chapter 7 discusses enrichment and educational programs for adolescents in relation to their sexuality and interpersonal relationships. This chapter reports an information seeking and the contents important to be embedded in the educational programs. The report on information seeking includes preferred sources of information about sexuality and preferred characteristics of the information sources. The topics, which are important to be included in

educational programs, concern adolescent sexual development as well as interpersonal development. Comparisons between different involved parties are also presented in this chapter.

In Chapter 8 (Part IV) the practical implications of the research findings for developing programs for sexuality education are discussed. This chapter includes a discussion of the desirability of sexuality education for adolescents, the contents of educational programs, and considerations for implementing the programs.

References

- Adioetomo, S. M., et al. (1999). Need assessment for adolescent reproductive health program. *Unpublished research report*. Demographic Institute Faculty of Economics University of Indonesia in collaboration with National Family Planning Coordination Board, World Bank, and Surindo Utama.
- Beni, R. (2005). Family barriers in preventing HIV/AIDS among young people in Indonesia. *Journal of Population, 11*, 131-159.
- Darvill W. & Powell, K. (2002). *The puberty book, panduan untuk remaja (The puberty book, a guide for children and teenagers)*. Jakarta: Gramedia Pustaka Utama.
- Djaja, S., Surjadi, C., & Susilawati, C. (2002). *Kebijakan dalam kesehatan reproduksi. Materi informasi (Policies in reproductive health. Information materials)*. Jakarta: Jaringan Epidemiologi Nasional (JEN) in cooperation with Ford Foundation.
- Happy, M. L. & Herisanto, R. L. (no date). *Tanya jawab seputar seksualitas remaja (Questions and answers about adolescent sexuality)*. PKBI, UNFPA, BKKBN, and IPPF.
- Hatmadji, S. H. & Rochani, S. (1995). A study on sexual activity in Indonesia. *Unpublished research report*. A joint cooperation between Demographic Institute Faculty of Economics University of Indonesia and The Ford Foundation, RAND Corporation, The World Health Organization, and Yayasan Kusuma Buana.
- Jackson, S., Jacob, M. N., Landman-Peeters, K., & Lanting, A. (2001). Cognitive strategies employed in trying to arrange a first date. *Journal of Adolescence, 24*, 267-279.
- The Jakarta Post. (2002). Teen sex education panned. *The Jakarta Post*, Friday, January 4, 2002.
- Kilbourne-Brook, M. (2000). Kesehatan reproduksi remaja: Membangun perubahan yang bermakna (Adolescent reproductive health: Making a difference). *Outlook 16*, 1-8. PATH & UNFPA. <http://www.path.org/publications/pub.php?id=695>. Retrieved on March 21, 2003.
- Kompas Cyber Media. <http://www.kompas.com>. Retrieved on June 27, 2001.

- Mathews, A. (1996). *Making friends, strategi bergaul agar diterima orang lain (Making friends, a guide to getting along with people)*. Jakarta: Gramedia Widiasarana Indonesia.
- The Ministry of Health, Republic of Indonesia. (1999). *Health development plan towards healthy Indonesia 2010*. Jakarta: The Ministry of Health, Republic of Indonesia.
- The Ministry of Health, Republic of Indonesia & The World Health Organization. (2003). *Indonesian reproductive health profile 2003*.
- Moeliono, L. (2003). *Manual Untuk Fasilitator: Proses Belajar Aktif Kesehatan Reproduksi Remaja, Bahan Pegangan untuk Memfasilitasi Kegiatan Belajar Aktif untuk anak dan Remaja Usia 10-14 tahun (Manual for Facilitators: Facilitating Active Learning about Reproductive Health for 10-14 year-old adolescents)*. UNFPA, National Family Planning Coordination Board, and Indonesian Planned Parenthood Association.
- Nieder, T. & Seiffge-Krenke, I. (2001). Coping with stress in different phases of romantic development. *Journal of Adolescence*, 24, 297-311.
- Roth, M. A., & Parker, J. G. (2001). Affective and behavioural responses to friends who neglect their friends for dating partners: influences of gender, jealousy, and perspective. *Journal of Adolescence*, 24, 281-296.
- Shulman, S. & Kipnis, O. (2001). Adolescent romantic relationships: a look from the future. *Journal of Adolescence*, 24: 337-351.
- Steinberg, L. (2002). *Adolescence*. (6th ed). New York: McGraw-Hill.
- Tandjung, A., et al. (2004). *Modul untuk Fasilitator: Proses Belajar Aktif Kesehatan Reproduksi Remaja, untuk Orang tua remaja dan Guru SLTP/SMU (Modules for Facilitators: Process of Active Learning about Adolescent Reproductive Health, for parents and High School Teachers)*. Indonesian Planned Parenthood Association, in cooperation with National Family Planning Coordination Board and UNFPA.
- Utomo, B. (2001). The availability and quality of data on reproductive health in Indonesia. *Journal of Population*, Vol. 7, No. 2, 59-76.
- Weisfeld, G. E. & Woodward, L. (2004). Current evolutionary perspectives on adolescent romantic relations and sexuality. *Journal of American Academy of Child and Adolescent Psychiatry*, 43, 11-19.
- Wellings, K. & Field, B. (1996). Sexual behaviour in young people. *Bailliere's Clinical Obstetrics and Gynaecology*, 10, 139-159.
- Wight, D., Williamson, L., & Henderson, M. (2006). Parental influences on young people's sexual behaviour: A longitudinal analysis. *Journal of Adolescence*, 29, 473-494.
- Zimmer-Gembeck, M. J., Siebenbruner, J., & Collins, W. A. (2001). Diverse aspects of dating: associations with psychosocial functioning from early to middle adolescence. *Journal of Adolescence*, 24, 313-336.

**Indonesian Adolescent Sexuality and Romantic Relationships:
Exploratory Studies**

Chapter 2:

**THE DESIGN OF THE INDONESIAN ADOLESCENT SEXUAL HEALTH
RESEARCH PROJECT**

Chapter 2

THE DESIGN OF THE INDONESIAN ADOLESCENT SEXUAL HEALTH RESEARCH PROJECT

Introduction

This chapter provides an overview of the design of the research project. The issues reviewed include the research questions of several sub projects, selection of variables, participants, instruments, procedures for data collection and analyses, and summarizes the structure of the rest of the report. The adolescent sexual health project consists of a pilot study and two main studies. The project used scales, questionnaires, tests, and interviews to obtain various types of data fitted to the different settings of the studies. It was expected that the combination of such data collection procedures would provide more comprehensive information about Indonesian adolescent sexuality and interpersonal relationships. A combination of data collection procedures had been used by Utomo and McDonald (1999) in a study of adolescent sexuality in Indonesia. They also suggested that a combination of quantitative and qualitative methods should be used in studying adolescent sexuality.

This project started from a concern with the sexual and reproductive health conditions in Indonesia, especially among adolescents, and what could be done to improve these conditions or to prevent them from becoming worse. The school setting was selected as the context of this project because (a) there have been few implementations of programs related to reproductive health, especially in school settings, and (b) in-school programs have a greater chance to be continued. Senior high school level was selected because it was assumed that senior high school students (mostly aged 15-19 years) are more in need for such programs. The needs are associated with the romantic relationships they are involved in during this period (e.g. Utomo, 2003, Collins, 2003).

Sexual and reproductive health has been a concern of international organisations. The issue was a topic of discussion in the International Conference on Population and Development (ICPD) in Cairo in 1994. The conference defined reproductive health as

“a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity, in all matters relating to the reproductive system and to its functions and processes. Reproductive health therefore implies that people are able to have a satisfying and safe sex life and that they have the capability to reproduce and the freedom to decide if, when and how often to do so.” (ICPD 1994, Programme of Action, Art 7.2.).

The World Health Organization (WHO) uses the following working definition of sexual health:

“a state of physical, emotional, mental and social well-being in relation to sexuality; it is not merely the absence of disease, dysfunction or infirmity. Sexual health requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination and violence. For sexual health to be attained and maintained, the sexual rights of all persons must be respected, protected and fulfilled.”

According to the WHO, sexuality is

“a central aspect of being human throughout life and encompasses sex, gender identities and roles, sexual orientation, eroticism, pleasure, intimacy and reproduction. Sexuality is experienced and expressed in thoughts, fantasies, desires, beliefs,

attitudes, values, behaviours, practices, roles and relationships. While sexuality can include all of these dimensions, not all of them are always experienced or expressed. Sexuality is influenced by the interaction of biological, psychological, social, economic, political, cultural, ethical, legal, historical, religious and spiritual factors."

This research project builds on these ICPD and WHO definitions. The WHO definition of sexual health includes both sexuality and interpersonal relationships, which is also related to reproductive health. However, especially in Indonesia, the term "reproductive health" has been used more frequently in research, and in documents, articles, and books published for the facilitators (e.g. Setyonaluri, Kusumaryani, Antarwati, Tobing, & Ahsa, 2005; The Ministry of Health, Republic of Indonesia, 1999, Utomo, 2001; Djaja, Surjadi, & Susilawati, 2002; Kilbourne-Brook, 2000; Moeliono, 2003; Tandjung et al, 2004), although other sexual health matters were also addressed. Therefore, this project used references to reproductive health to identify the problems and research topics, and the terms "reproductive health" and "sexual health" are used interchangeably.

The problems with adolescent reproductive health in Indonesia include lack of knowledge, risky sexual behaviours, unwanted pregnancy, and lack of schooling for pregnant adolescents (Djaja et al., 2002). An example of problems related to risky sexual behaviours is HIV and sexually transmitted infection (STI) transmission. According to the Country Report of the Komisi Penanggulangan AIDS (Commission for AIDS Prevention) of Indonesia 2005, 52.8% of AIDS (Acquired Immune Deficiency Syndrome) cases were among young people aged 20-29 years old. It can be assumed that the HIV (the cause of AIDS) transmission had occurred at an even earlier age, including during adolescence. Although in the last years transmission was mostly among drug users, transmission through sexual activities inevitably exist.

Unwanted pregnancy is another problem related to adolescent sexual and reproductive health in Indonesia, as with adolescents in other countries (Steinberg, 2002). Although official data is lacking, unwanted pregnancy and (unsafe) abortion among Indonesian adolescents as appears to be increasing. Rather than getting support, the problems of pregnant adolescents often only increase, such as being expelled from school (cf Djaja et al, 2002). Many factors contribute to the unwanted pregnancy among adolescents. Those factors were sexual activity, lack of knowledge, limited access to contraception, and carelessness (Steinberg 2002). The knowledge about sexuality among Indonesian adolescents was low (Setyonaluri et al, 2005).

From the definitions of reproductive health and of sexual health cited above, it can be concluded that adolescent reproductive health problems are related to their sexuality and interpersonal relationship development. Both aspects were prominent in unwanted pregnancy cases, which mostly occur in the context of intimate relationships. This raises the following questions which the project will address. First, how do adolescents in Indonesia deal with interpersonal relationships and its sexuality problems? Second, what do adolescents need by way of for support for constructing sexually healthy interpersonal relationships?

Identification of Variables and Detailing Research Questions

The objectives of this research are to obtain information about adolescent sexual situations, and to develop some ideas for developing sexual or reproductive health education program for senior high school in Indonesia, especially Central Java. Sexual and reproductive health are related to sexuality and interpersonal relationships, including romantic relationships. Senior high school students (mostly aged 15-19 years) have passed the pubertal period, but they may still have difficulties or problems associated with their

sexual development (Steinberg, 2002; Archibald, Graber, & Brooks-Gunn, 2003). The difficulties or problems can be psychological, medical, or social in nature. The sexual development itself introduces questions for the adolescents about what it is and how to deal with it. In their effort to understand what happens with their body, young people try to get information from various sources (Wellings & Field, 1996). There are also a wide variety of topics about which they seek information.

At the same time, many adolescents also start to be involved in romantic relationships. They begin by learning how to affiliate with other sex and progress to learning what sexual activities they may engage in (Furman & Wehner, 1997). In this learning process, they may learn by themselves and learn from others, especially from their peers. According to Connolly and Goldberg (1999) peer pressure plays an important role in adolescent romantic relationships, including romantic activities expected. In dealing with the peer pressure, adolescents have to balance their own idealisms with peer expectations. In many cases, skills to be assertive are needed.

Romantic relationships are significant for adolescent development, including development of identity, close relationships with peers, and sexuality (Furman & Shaffer, 2003; Collins, 2003). The romantic relationships help adolescents develop a specific view of the self, especially romantic self-concept and general self-esteem. The relationships also provide more possibilities for young people to expand their network of friends. The availability of many friends in the network has additional positive effects for adolescents, especially when they need social support. Thus, romantic relationships become a framework for adolescents to learn about sexual behaviours, sexual roles, and also sexual orientation.

Adolescents' sexuality and interpersonal relationships may become stressors they have to deal with (Seiffge-Krenke, 1995; Nieder & Seiffge-Krenke, 2001). Beside pressures from their peers and friends, other stressors are related to starting, maintaining, or ending interpersonal relationships, including intimate relationships (Jackson, Jacob, Landman-Peeters, & Lanting, 2001). Adolescents may have several ways of coping with these situations (Seiffge-Krenke, 1995; Nieder & Seiffge-Krenke, 2001). An involvement in romantic relationships, however, is not only potential for bringing about stress, but it also has the potential to help adolescents cope with stress. As an involvement in romantic relationships expands the network friendships, the network may become a source of support for adolescents when they have problems.

Adolescent romantic relationships also contribute to identity development generally and romantic self-concept and self-esteem in particular (Furman & Shaffer, 2003). A perception of the self can also play an important role in adolescent coping behaviours (Jackson & Bosma, 1990; Seiffge-Krenke, 1995; Seiffge-Krenke, 1990). Because coping is not only cognitive but also behavioural, a perception about one's own ability to execute behaviours is also important. Self-efficacy, a "belief in one's capability to organize and execute the courses of action required to produce given attainments" (Bandura, 1997, p. 3), must also be involved in the coping process. According to Bandura, self-efficacy also plays an important role in adolescent sexuality and in transferring knowledge to behaviour changes with regards to sexuality. According to Schwarzer (1992) self-efficacy has plays an important roles in developing intentions, planning actions, and executing these actions in relation to health behaviours. As sexuality and interpersonal relationships are to some extent also related to health behaviours, Schwarzer's opinion might be applicable in the area of adolescent sexuality and interpersonal relationships.

In summary, this project aims to describe of adolescents' sexual situations, strategies for coping with interpersonal relationships, self-concept, self-efficacy in interpersonal relationships, and the information exchange process. The sexual situations include sexuality and interpersonal (including romantic) relationships. The information exchange process

covers information seeking and the information and skills needed by the adolescents in relation to their sexual and interpersonal development. The relationships among these topics can be conceptualized in a model, presented in Figure 2.1.

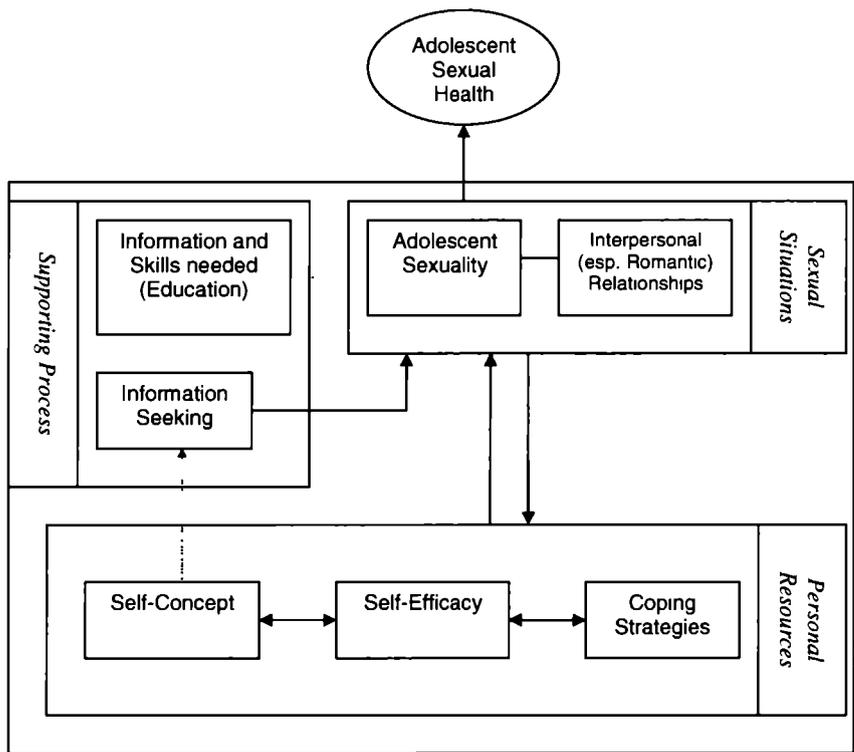


Figure 2.1: Working Model for the Indonesian Adolescent Sexual Health Research Project

On the basis of the project’s two general questions and these general topics for study, more detailed research questions were framed:

1. What do Indonesian adolescents know about sexual matters?
2. Do they have difficulties with their sexual development?
3. What are their intimate relationships?
4. How do they cope with their interpersonal situation and its problems?
5. What is the self-concept of Indonesian adolescents?
6. How do they perceive themselves in relation to their skills in initiating, developing, and terminating interpersonal relationships?
7. From which parties do they usually get information about sexual matters?
8. What do they need to understand in their sexual development to improve their interpersonal relationships?
9. How do demographic conditions relate to the adolescent situations and how adolescents deal with the situations?
10. How do these variables correlate with each other?

The Pilot Study

On the basis of the detailed research questions a draft questionnaire was constructed and tested in a pilot study. The questions used a forced choice response format as well as open questions. The pilot study was conducted mainly to develop and/or to try out appropriate instruments for the survey in the main study, covering coping, self-concept, knowledge, sexual situations, self-efficacy, information sources preference, and some demographic information. The open questions covered coping strategies and what adolescents needed in association with their sexual and interpersonal development. Two versions of instruments were used in the pilot study. Both versions targeted the same aspects or variables but used different question formats, particularly in the instruments used for measuring self-concept and coping.

Version A of the coping questionnaire was more the detailed, identifying eight problem areas (school, teachers, parents, peers, romantic relations, self, future, and leisure time) plus one option called "other unexplained problems". This questionnaire consisted of 20 items of the CASQ (Seiffge-Krenke, 1995) and some open questions. Version B of the coping questionnaire had the same items and questions as Version A, but was more general in nature in that it did not specify problem areas.

Version A of the self-concept questionnaire was Self Description Questionnaire (SDQ) II. This instrument has 102 items representing 11 facets of self. Version B of the Self-concept questionnaire was SDQ III which has 136 items representing 13 facets of the self-concept. Both versions were developed by Herbert Marsh (1989; 1990).

The subjects for the pilot study were 187 first and third year students from a senior high school in Semarang city. Ninety two of the subjects were males, 87 females, and eight subjects gave no answer on their gender. The age ranges from 15 to 19 years, with a mean age 16.27 years. One hundred and fourteen students received questionnaire version A and the rest (73 students) received version B. Data collection was conducted during school hours.

The data collection was conducted on two occasions due to the number of variables and items on the instruments. The second data collection was conducted one week after the first data collection. Anonymous matching was done to match the first and the second parts of questionnaires. In this anonymous matching the respondents wrote codes, instead of name and student number, on the boxes at the cover of the questionnaire. The codes were used to match the first and the second parts of the questionnaire. The first part was completed in about 60 minutes while the second part took about 35 minutes. Data collection was conducted by the researcher and three assistants. The assistants were senior students of the Faculty of Psychology of Soegijapranata Catholic University in Semarang. Data collection was conducted in the first and second weeks of October 2002.

During the administration of the questionnaires, the researcher and assistants made notes about the process and verbal and non-verbal behaviours of the participants. Questions from the participants about the words, items, and meanings of the questionnaire were recorded and answered. These notes, together with the results, were used as a consideration for designing the questionnaire for the main study. Part of the results of the pilot study was published by the researcher in a local journal (Winarno, 2003).

In addition to the questionnaires administered to the *students*, there was also a short questionnaire for *teachers*. There were two open questions on what students needed regarding their sexual and interpersonal development and some demographic items. The results were content analyzed and, together with results of students, were used to develop the final version of the questionnaire used in the survey.

Study I: Large-scale Survey

This study examined Indonesian adolescent sexuality. In fact Indonesia is a very large country populated by people with various socio-cultural backgrounds. This made it practically impossible to include adolescents from all cultural backgrounds in this study. It was decided to limit this research in Central Java, considering that there were sexuality problems in Central Java, as in other parts of Indonesia. One indicator of the reproductive health problems is maternal death, or maternal mortality ratio (MMR). MMR is the number of maternal deaths per 100 000 live births. Official data from the Office of Health of the Central Java Province (1999) showed that the variability of MMR in Central Java was very high, ranging from 36 (Semarang City) to 7200 (Jejara Regency).

It was assumed that there were also reproductive health problems among adolescents in this area, although these were not well documented. It is also important to note, however, that even in Central Java there were many differences among areas. The variability of situations among adolescents in Central Java was high. It was expected that the research carried out in Central Java could be applied in other areas of Indonesia, especially in conducting research on developing programs related to adolescent sexuality.

A *large-scale* survey was considered important for three reasons. First, there had been no large scale study on this topic in Central Java. This study was aimed to get some input from the adolescents themselves and the other stake-holders on what they considered necessary or even needed to develop any programs on adolescent sexuality. Second, it was expected that this study would also have a practical application, namely to inform the stake-holders, including the decision makers, about the sexual and interpersonal situation of adolescents and the requirements for any educational programs related to adolescent sexuality. To support this objective a large scale study, *and not just statistical evidence*, was considered very important. Third, as noted above, there is still wide variation in characteristics of local areas within Central Java. These characteristics might influence the interpersonal situations of adolescents in school as well as in and their daily lives. Hence it was important to include as many respondents from various backgrounds as possible in this study. The survey was conducted between May and August 2003.

Participants

The participants in this study were senior high school students. The reasons for selecting senior high school students were: First, this study was expected to make an important contribution to developing educational programs related to sexuality at senior high school level. Second, senior high school students are experiencing sexual development and particularly development in their interpersonal relationships. Hence they are “experts” on experienced problems in these matters. In addition to adolescents, other “experts” in these matters are young adults since they have only recently emerged from the adolescence years (Shulman & Kipnis, 2001). Given their point of view, they are assumed to be able to report more accurately about what really happens among adolescents and what adolescents really need. They also can provide important input about how to deal with adolescent situations and problems on the basis of their previous and current experiences.

The other involved parties, i.e. parents and school teachers, were also included in the study. Most adolescent lives are not separated from family and school. They have many ties with their parents, economically, socially, morally, and psychologically. In Central Java parents are fully responsible for adolescents in almost all aspects of their lives, including their personal and social lives. Teachers are formally responsible for educating young people in academic and non-academic topics. One example of a non-academic topic is the development of knowledge and attitudes in such a way that students can contribute more to the development of society. It also means that schools are also responsible for preventing

young people from getting involved in situations or behaviours which are risky to their career, such as involvement in sexual intercourse and pregnancy, and drug use. Those risky behaviours can result in the student being expelled from school with corresponding lower prospects for the future.

It is known that sexuality education for young people is associated with their current and future reproductive health (Yaumil A. Achir, *The Jakarta Post*, January 4, 2001). One important indication of reproductive health is safe pregnancy and safe motherhood. This is applicable especially for females, but males are also involved in this matter. Hence, this project on adolescent sexuality was related to a parallel project on safe motherhood conducted at the same time by another researcher. These two projects used Maternal Mortality Ratio (MMR) to map the variability of the prospective participants. The MMR was assumed to be related to pre-pregnancy conditions, including psychological and socio-cultural conditions. The pre-pregnancy conditions might have existed during the adolescence years.

Sampling

On the basis of the annual report of the Office of Health of the Central Java Province 1999 the maternal mortality ratio (MMR) was ranked into five groups from the lowest MMR (rank 1) to the highest MMR (rank 5). One city/regency was selected from each group based on certain specifications. After a consultation with a medical doctor who had been working in projects for reducing maternal mortality in Central Java, another region was added. There have been many intervention programs for reducing the maternal mortality in that region, but the decrease in MMR in that region seemed stagnant. Coincidentally, the newly added region had the highest MMR among the selected regions. The considerations for selecting the areas are described in Table 2.1.

Table 2.1: The List of Research Regions and Considerations of Selection

Regions	MMR Rank	Considerations for selection
Semarang City	1	City, mixed (various) social and cultural background, urban living
Pekalongan city	2	Strong Islamic influence, north coast of Central Java
Semarang regency	3	Rural, non-coastal area
Kudus regency	4	Industrial area, some Chinese influence and strong Islamic influence as well
Kebumen regency	5	Rural, mostly Javanese, southern part of Central Java
Pemalang regency	6	Very high MMR, in the last years received many interventions from the government addressed to MMR and adolescent reproductive health

The original plan was to select ten schools of each of several types from each region. There are both public (government supported) and private schools in Indonesia. Among the private schools there are schools connected vs. not connected to religion. Schools connected to a specific religion in Indonesia are Islamic, Catholic, and Protestant schools. Non-

religious schools are referred to as 'national' schools. Hence, there were five types of schools: public, Islamic, Catholic, Protestant, and national schools.

It was considered important to include all types of schools in this study because each type of school might have specific academic and non-academic atmospheres, including sexuality and interpersonal relationship atmosphere. These specific characteristics might influence the lives of the students. For example, public schools are in many cases the first choice for parents to send their children because of their affordability and having better facilities. Hence, there was a possibility that many young people with average or above average ability in the respective regions attended public schools. In many cases, however, private schools are often the first choice because of the good reputation of the schools. The Islamic schools had strong Islamic regulations, in which living according to Islamic norms was emphasized. The majority (if not all) of the students of Islamic schools are Moslems. The Catholic and Protestant schools had atmospheres which were different from that of the other types of schools. In the cities, there is higher enrolment from the Chinese-Indonesian sector of the population. In addition, many students of these schools were Catholic or Protestant. The students of Catholic and Protestant schools in suburban or rural areas were slightly different in that there were not as many Chinese-Indonesian students. However, non-Christian people studying in Christian (Catholic and Protestant) schools usually did not concern themselves about the religious atmospheres of the schools. The national schools were almost the same as public school in terms of the composition of students and teachers. A difference was that, in most cases, public schools had better facilities and were more affordable. Nonetheless some national schools were preferred over the other schools in some regions.

The original plan to select ten schools of each type was modified after the data from the Office of Education of each region were collected. Modifications were required by the actual number and availability of schools in each region. The number of schools selected for the survey in each region was listed in Table 2.2.

Table 2.2: The Number of Participating Schools and Students from Each Region

Region	School Types					Total	
	Public	Islamic	Catholic	Protestant	National	Schools	Students
Semarang City	3	4	3	3	3	16	2887
Pekalongan City	3	3	1	1	1	9	1342
Semarang Regency	3	2	2	1	2	10	1618
Kudus Regency	4	2	1	1	2	10	1522
Kebumen Regency	3	2	1	2	2	10	1532
Pemalang Regency	4	3	1	0	2	10	1707
Total School	20	16	9	8	12	65	-
Total Students	3723	2616	1479	979	1811	-	10608

As shown in the Table, every type of school was represented in all regions except in Pemalang, which did not have a Protestant school. In Semarang 16 schools were selected because there were many more schools in this region than in other regions. In Pekalongan,

on the other hand, only nine schools participated in the study; one school refused to participate due to school policy and there was no other school available to replace it. One school selected in Kudus also refused to participate in the survey, but it was replaced by another school. The reason given by both the schools for refusing to participate was that they would not allow any outside activities during school hours. Coincidentally, both schools were favourite public schools in their respective areas.

Table 2.3: The Participants of the Large Scale Study

Groups of Participants	Consideration for Selection	Criteria	Actual Number of Participants
High school students (adolescents) - data collected in school (IS)	The main participants of this study. The study was expected to have a contribution to the development of sexuality education program for high school students in the school context	Age: 14-20	10,608
Adolescents (high school students) – data collected out of school (OS)	To give more complete description about adolescent life. Sensitive questions, which were not possible to ask in the classroom, were asked in this group.	Not participating in-school data collection	224
Young adults	They possibly have had romantic experiences during adolescence with relatively limited knowledge. At the time of data collection recently past adolescent years. They might still have fresh memories of adolescence and, hence, could give important input on what adolescents needs to deal with their lives, especially sexual and interpersonal lives from their current point of view	Age: 21-25, Not yet married	341
Parents who have an adolescent child/children (aged 11-20)	They have many ties with adolescents: financial, emotional, social, and familial. They are also responsible for the education of adolescents especially at home and in daily lives.	Have an adolescent child or children (aged 11-20)	382
School teachers	They interact with adolescents almost every day for more than five hours per day. They are also responsible for educating (not just teaching) the adolescents in the school context.	Teachers from the same schools as the students involved this study	591

It was expected that approximately 150 students (four classes) from each school would participate. Overall, about 9000 students were expected to participate in this study, but the final number of participants was 10608. The number of participants from each school

varied, from 11 to 366 students. It was expected that four classes of students from each school would participate, but some schools had only one or two classes of students. Some other schools decided that the research should be carried out on all students, resulting in up to ten to twelve participating classes.

To give a more complete understanding of adolescent situation and needs, other groups of respondents were also included in this study. Some of them were stake-holders in adolescent education and development, i.e. parents and teachers. The other respondents were young adults and out-school students (data collected outside school setting). All those groups of respondents were selected with several considerations (see Table 2.3).

Instruments

There were five questionnaires, one for each of the five groups of participants, namely in-school students, out-school students, young adults, parents, and teachers. Most of the instruments used in this study were constructed by the researcher. As the main respondents of this study, in-school adolescents received a questionnaire which had more aspects and items than the other questionnaires. The instrument for in-school students is extensively described in the following paragraphs. The instruments for the other groups of participants will be explained in reference to the instruments for the in-school students.

Questionnaire for in-school students (in-school data collection). The questionnaire for in-school students (IS) consisted of eight parts. The parts were arranged in such a way to prevent or minimize the respondent from feeling bored answering the questionnaires. The contents are summarized in Table 2.4.

Table 2.4: Summary of the Content of the Questionnaire for In-School Students

Parts	Contents
1	<i>Demographic data:</i> date of data collection, date of birth, region, school, class level, religious affiliation, and gender
2	<i>Coping</i> (24 items), with 4 response options from “Never/Almost Never” (1) to “Always/Almost Always” (4)
3	<i>Romantic experiences and related situations:</i> about own romantic experiences and perception about romantic experiences of peers, and about negative consequence of romantic relationships. This part included five items.
4	<i>Knowledge statements</i> to be judged True or False (13 items)
5	<i>Self-concept</i> (52 items) scored on a 7-point scale from 1 (“Not applicable for me”) to 7 (“Applicable for me very much”)
6	<i>Difficulties related to sexual development.</i> There were 5 items for each gender, with responses on a 6-point scale ranging from “Almost Never” (1) to “Very Often” (6)
7	<i>Information and perceived importance of sexuality education.</i> This part consisted of four sections, i.e. (a) information sources preference (15 items), (b) preferred characteristics of information sources, (c) perceived importance of information and topics related to sexual development, and (d) perceived importance of information and topics related to interpersonal development
8	<i>Self-efficacy</i> in developing interpersonal relationships (19 items), with a 7-point scale ranging from “Very Difficult” (1) to “Very Easy” (7)

Ad 1. Demographic data consisted of date of data collection, region, school, class level, date of birth, religious affiliation, and gender. The data on the date of birth and of data collection were used to calculate the age. The demographic data were quantitatively coded for data analysis.

Ad 2. The coping scale consisted of 24 items. Twenty of the items were adapted from the Coping Across Situations Questionnaire (CASQ) developed by Seiffge-Krenke (1995). There were two reasons for using CASQ in this study. First, the CASQ was developed for use among young people (as reflected in the items and problem areas). Second, it is short. The CASQ consisted of 20 items reflecting three coping strategies, namely “active coping”, “internal coping”, and “withdrawal”. The original questionnaire used eight problem areas, namely school, teachers, parents, peers, intimate friends, self, future, and leisure time. All the items of CASQ was used in the pilot study. As mentioned above, there were also open questions about coping in the pilot study. From the answers to the open questions it was found that, in addition to the dimensions covered by CASQ, there were behaviours referring to a religious dimension. Four new items with religious content were constructed and included in the coping scale. The new items had active, internal, and withdrawal connotations. Instead of using the eight problem areas, this questionnaire focused on one area only, i.e. problems or difficulties in interpersonal relationships, including romantic relationships. An example of the coping items is “I discuss the problem with my parents/other adult”. The instrument used a 4-point response scale, from “Never/Almost Never” (1) to “Always/Almost Always” (4). All items were positively worded.

Ad 3. Questions about the romantic experiences of adolescents consisted of five items. One item was about their own experiences in romantic relationships (whether they had boyfriend or girlfriend) and the others were about their perception of what peers do and what happens with peers. Questions about peers covered the romantic relationships of school friends and the negative consequences of romantic relationships among peers, in this case pregnancy and sexually transmitted infections. The fixed response format included four to six rank ordered answers as alternatives.

Ad 4. Knowledge questions comprised 13 items with “True” and “False” answers. There were two questions about male reproductive process, two items about female reproductive process, myths (incorrect beliefs) about sex and sexuality, three items about sexually transmitted infections and HIV, which was composed of knowledge and belief, and one item about condoms. An example of a knowledge statement is “Body hair indicates that the person has high sexual desire”. Correct answers were scored 2 and incorrect answers were scored 1.

Ad 5. Self-concept scale questions were 52 items representing 13 dimensions. The dimensions were taken from the Self Description Questionnaire (SDQ) III developed by Herbert Marsh (1989). This instrument has been used with both western and eastern young people. Peters (1998) used the SDQ II in his research among young gifted adolescents in China and the Netherlands. In the pilot study the SDQ II (11 dimensions, 102 items) and SDQ III (13 dimensions, 136 items) were both used but they were not used in the large scale survey for two main reasons, (a) too many items and (b) the wording of some items seemed very extreme (e.g. “I never respect my parents very much”, “Continuous religious development is very important to me”). Answers to these questions probably would be very much affected by social desirability. Theoretically, the most respondents of this study better fitted the use of SDQ III, but some students fell within the age range of the SDQ II. Hence some concepts of SDQ III were very difficult for these respondents to understand (e.g. “express myself”, “integrity”). On the other hand, the SDQ II did not include a religious component, which plays an important role (at least formally) in the lives of people in Central Java and Indonesia in general.

As a replacement for the SDQ II and III, a *new* scale of 52 items was constructed using the 13 dimensions of the SDQ III. There were four items in each dimension, with one of the four items negatively worded. Although the researcher had no intention to copy the SDQ items, the formulation of some items was similar to or the same as SDQ items. An example of the self-concept items is "I'm an honest person". The self-concept instrument used a 7-point scale from 1 ("Not applicable for me") to 7 ("Applicable for me very much").

Ad 6. *Questions about difficulties related to sexual developments* comprised five items for each gender group of respondents. The participants rated extent to which they experienced difficulties or problems related to their sexual development. The potential problematic areas for males were nocturnal emission, larynx development, voice change, development of pubic hair, and other body hair. The problematic areas for females were menstruation, and development of breasts, pubic hair, other body hair, and other body development. The questionnaire used a 6-point scale from 1 ("Almost never") to 6 ("Very often").

Ad 7. *The information and perceived needs* part of the questionnaire consisted of four sections. The first section was about preferences for information sources. There was a list of 15 potential sources of information about sexual matters: close or romantic friend, friends, mother, father, older brother/sister, other adults, medical staff, counsellors/psychologists, youth centre, teachers, religious figures, magazines, newspapers, internet, and others. The respondents ranked the potential sources according to adolescent preference.

The second section was about preferred characteristics of the information sources or the information exchange process. Fourteen characteristics were listed and the respondents rated the degree of importance of the characteristics using a 5-point scale, from "Not important at all" (1) to "Very important" (5). An example of the listed characteristics is "The information sources are more experienced". This list was compiled on the basis of the pilot study which used an open question format to investigate the reasons for accessing specific sources to find information about sexual matters. The reasons given provided the basis for the construction of the list.

The third section concerned participants' perception of the importance of information or training to help adolescents understand the changes in their lives, especially related to their sexual development and reproductive health. They rated the importance of the information or training according to their own point of view or experiences from 1 ("Not important at all") to 5 ("Very important"). Twenty five items were listed, based on the data from the pilot study. One of the listed items, as an example, is "How to take care of myself, especially related to the reproductive organs".

The last section of this part was about information or training related to interpersonal development. On the basis of the pilot study, 35 items were listed and participants rated the items in terms of their importance for helping adolescents develop interpersonal, including romantic, relationships. An example of the items is "Understanding others' feelings". This section used a 5-point scale from 1 ("Not important at all") to 5 ("Very important").

Ad 8. The last part of the instrument for this group of participants was *self-efficacy in relating to others*. This part had 19 items and participants rated the items on a 7-point scale, from 1 ("Very difficult") to 7 ("Very easy"). The items covered a wide range of interpersonal relationships, from initiating a contact, friendship, close/romantic relationships, dealing with friends or close/romantic friends (including expressing different opinions and feelings) to terminating friendships or close/romantic relationships.

Questionnaire for out-school students (out of school data collection). The questionnaire for out of school data collection comprised five parts. The first part was the demographic data (date of data collection and date of birth, school and class level, religion,

and gender). The school and class level were optional, meaning that the participants were free to fill them in or not. The second part consisted of three questions about their own romantic experiences and perceived romantic experiences of school friends and “play friends” (friends with whom they were used to go with outside the school context and spend leisure time together).

The third part was about their own sex-related behaviours or experiences in viewing, reading and watching porno materials (pictures, stories, film), masturbation, having intimate contact (from kissing to sexual intercourse), contact with sexually transmitted infection, involvement in abortion, and homosexual attraction. This part comprised 13 items. The participants rated items on a 5-point scale from 1 (“Never”) to 5 (“Very often”).

The fourth part concerned self-efficacy, and included 19 items to be rated on a 7-point scale. One of the differences with the in-school questionnaire was that the out-school questionnaire had no items about friendships. In addition, some items explicitly mentioned sexual behaviours, such as kissing, rubbing sexual organs of others, and intercourse. In the in-school questionnaire, only the general term “risky behaviours” was used. This selection of words was done by taking into consideration the site of the data collection. Sexually explicit terms were not used in the in-school questionnaire (a) to increase the chance of getting permission to do this research in schools, and (b) to decrease the students’ feelings of insecurity so that the students would give more accurate answers.

The last part was about sex-related behaviours or experiences of peers. The items were the same as part three about one’s own sexual experience. The respondents rated the number of friends known as having been involved in the listed sex-related behaviours or experiences. They rated the items from “None” (1) to “All/almost all” (5) plus one option “Don’t know” (6).

Questionnaires for the other groups. The questionnaires for the three other groups were similar with each other. The main parts of the questionnaires were the same as the *information and needs* section of the questionnaire for students (Part-7). The contents were preferences for information sources, preferred characteristics of information sources and exchange, and perceived importance of information or training related to adolescent sexual and interpersonal development. The participants were asked how they perceived the preferences and needs of adolescents. The response formats was the same as those used for the students. For the information sources preferred by adolescents, the respondents rank ordered the listed sources. For the items about the importance of information and training for adolescents, the respondents rated them on a 5-point scale from “Not important at all” (1) to “Very important” (5).

For these three groups of respondents there were also questions about sexual situations of adolescents in their area (for parents and young adults) or school (for teachers). The respondents were also asked whether sexuality education in senior high school was needed. For teachers, there were two specific questions about their suggestions for implementation and facilitators of sexuality education in their school (if any).

Procedure of Data Collection

School selection and approach. As described above, six cities/regencies were selected for this study. To do the research in those areas, permission or a recommendation from a higher level government (in this case the government of the Central Java Province) and permission from the government of each city/regency was needed. The offices to be approached were the Offices of Society Affairs and Offices of Education. In order to obtain permission, the researcher went personally to the Offices with an official letter from the Faculty/University and a copy of the research proposal and the questionnaires. Formal

permission or recommendation to do research was obtained first from the Provincial Office of Society Affairs. Permission to do research in schools was obtained from the Provincial Office of Education.

The researcher also obtained a list of senior high schools in all cities and regencies in Central Java. The schools in each city/regency were grouped according to type, namely public and private (Islamic, Catholic, Protestant, and national) schools. Schools were selected randomly from each group. Ten schools were initially selected from each city/municipality. In Semarang City, however, 16 schools were selected because there were many more senior high schools in this city than in the other regions. After the schools were selected, the researcher went to city/regency offices to get permission to do the research in the selected schools. The schools were then approached with the letter of recommendation or permission and research proposal. In many cases, the schools were visited more than once prior to data collection to discuss the research content and the data collection process. As mentioned above, two of the schools refused to participate on the basis of the school policy. One of them was replaced by another school while the other was not because there was no other appropriate school in that specific area to replace.

Assistant Recruitment and Training. Coinciding with the school recruitment process, a number of students was recruited and trained as research assistants for classroom and out-of-school data collection. They were students of the Faculty of Psychology, Soegijapranata Catholic University in Semarang. Out of ninety one students who applied, 71 were selected for training. The training materials covered an overview of the research, the contents of each questionnaire, the criteria for selection of participants, and practical skills in how to approach participants and to deal with respondents in the classical data collection. The training was spread over several sessions. For in-school data collection, practical and technical matters for the data collection were discussed by the team the day before each data collection. The assistants were coordinated by an assistant coordinator for each city/regency. The assistant coordinators also accompanied the researcher when the schools were initially approached, and during the initial discussions about the data collection process.

Data Collection and Issues of Confidentiality. Data were collected from two different sites, within-school classrooms and an out of school site. Data collection within each classroom was carried out by one or two trained assistants. The data collection was conducted during school hours, replacing the scheduled subject. Only in one school the data collection was conducted immediately after regular school hours. In some cases the teachers of the respective schedules or the contact person introduced the assistants to each class. In many other occasions the assistants went to the classroom without being accompanied by teachers and introduced themselves to the class. After the short introduction, the assistants explained to the students their purpose in coming to the school. It was emphasized that they (assistants/researchers) came to the school "to learn from you about the lives of adolescents". They then distributed the questionnaire and explained important matters related to the data collection, such as how to answer the questions and the issue of confidentiality.

To minimize the social desirability effect and to obtain true information, the issue of confidentiality was strongly emphasized. Prior to completing the questionnaire, the students were ensured that their answers were confidential. The questionnaire was not related in any way to any school subjects, and especially not to school grades. Moreover, no teachers were allowed to be present in the classroom during the completion of the questionnaire. The students were also encouraged to answer on the basis of their own experience, knowledge, or opinion and, therefore, not simply copy their friends' answers. This suggestion was also written on the cover of the questionnaire.

While the respondents were answering the questionnaire, the assistants made notes about the data collection process, noted questions raised (e.g. how to answer this or that part, the meaning of words), the general atmosphere (quiet, serious, noisy, etc), and specific behaviours of the respondents (e.g. working by themselves, talking to friends). On average, the respondents completed the questionnaire within 40 minutes. The students in urban areas generally answered the questionnaire faster than the students in rural areas.

For the out-school data collection, the assistants brought the questionnaire and envelopes for completed questionnaire. As in the in-school data collection process, the assistants explained the research to the recruited participants, explained how to complete the questionnaire, and emphasized the confidentiality issue. Then, the instrument was handed to the participants. After filling in the questionnaire, the respondents were asked to put it in the envelope and seal it.

Study II: A Closer Look at Adolescent Intimate Relationships: The *Pacaran* Study

The second part of the Central Java sexuality project was a study of dating couples. A dating relationship (*pacaran*) was considered to be an appropriate setting for a follow-up study to the survey. The purpose of the study of dating relationships was to get a more detailed and realistic description about the “inside” of a romantic relationship (*pacaran*) among adolescents. This study had the same character as the large-scale survey, in recognizing the importance of adolescents as the main sources of information regarding their sexuality and interpersonal relationships, and their needs on the basis of their life situations. The main research questions of this study were: (a) what *pacaran* means for adolescents, (b) how do adolescents feel and act within their intimate relationships, and (c) how do adolescents perceive the future their present relationship.

Instrument

More detailed questions were constructed on the basis of the two main questions. These questions include (a) what meanings the *pacaran* partners give to a dating relationship, (b) which practices exist in a dating relationship, (c) what are the feelings of both partners, (d) which prospects are seen for the current relationship. In addition, there were some questions about participants’ background such as gender, age, religious affiliation, status (student or working), duration of relationship, and knowledge and reactions of others about their dating relationship. These background questions were about himself/herself and his/her partner and were asked to both parties.

Most questions were open ended. Closed questions concerned dating activities, activities when meeting, and expectations about the future. The preference for open-ended questions was in line with the purpose of this study, which was exploratory in nature.

Data Collection

Sixty dating couples were originally selected for interview. As this study was in the context of identifying needs for sexuality education for senior high school students, at least one of each couple should be a senior high school student. Of the sixty couples, 59 couples met this criterion. One couple was not included in the analysis because both parties turned out to be university students. Mostly participants were recruited by the interviewers through acquaintances. Some respondents were the friends of the interviewers. Several participants were recruited directly by the assistants, without knowing each other before the meeting. The data collection was done within three weeks, from mid September to the first week of October 2005.

The interview was conducted by 24 trained assistants. They were all female Psychology students of the Soegijapranata Catholic University in Semarang, and at least at

the fifth semester. It was assumed that female interviewers would be more acceptable to both male and female respondents, and so would be more open to the interviewers. In most cases, an appointment for the interview was set up during the first contact. Some respondents were interviewed immediately. The interview was conducted face-to-face, separately for the male and female parties.

The format was a structured interview with a detailed interview guide. The assistants asked questions to the participants and made notes about the answers. In some cases, however, the participants preferred to fill in the questionnaire by themselves in the presence of the interviewers and asked the assistants for some clarification whenever needed. After the respondents finished answering the questions, the assistants checked the answers and asked for clarification if needed. For the pre-coded questions on their activities during private meetings, many respondents filled the questionnaire in by themselves. This preference had to do with the personal and private nature of the questions which included reference to sexual contact. Before the interview started, confidentiality was guaranteed and at the end of interview respondents were asked to put the completed questionnaire into a prepared envelope and seal it.

Details of the methods used in the Central Java adolescent sexual health research project is summarized in Table 2.5.

Table 2.5: Summary of the methods of adolescent sexual health research project

No	Studies	Location	Participants	Dates
1.	Pilot Study	A Senior High School in Semarang City	- 187 students - 12 teachers	October 2002
2.	Large-scale Survey	65 Senior High Schools in 6 regions of Central Java	- 10,608 in-school students - 224 out-school students - 341 young adults - 382 parents - 591 teachers	May – August 2003
3.	<i>Pacaran</i> Study	Semarang City	59 <i>pacaran</i> couples	September - October 2005

Analyses and Reporting

The analyses for Study I and Study II were conducted separately. Prior to the analyses, coding, data cleaning, some recoding, and some computing were done. In general there were two types of analyses. The first one consisted of descriptive/exploratory analyses. In these analyses, the variables were analysed in relation to socio-demographic variables, namely region (MMR), school type, class level or semester, gender, and religious affiliation. Cross-tabulation and chi squared test, student t-test, (multivariate) analyses of variance (MANOVA), and discriminant analysis were done in this part to find out whether there were differences between groups.

Second, psychometric analyses were carried out for evaluating the quality of some instruments that measured psychological and behavioural constructs, such as coping, self-concept, self-efficacy, and perceived needs, and dating behaviours. Factor analyses (principal component analysis with Varimax rotation) and reliability analyses were performed. Usually after the factor analysis exploratory analyses were also carried out, in

which group Mean scores were compared (t-test, MANOVA) or correlations were tested (Pearson's r, Spearman rho).

The rest of this report is arranged according to topics which were included in both Study I and Study II, not chronologically (see Figure 2.2). The report starts with a description of the sexual situations of Central Java adolescents. This description is presented at the beginning of the report to give a common baseline-understanding of the situations. Moreover, these situations are closely related to the concern which inspired the researcher to carry out this project, namely adolescent sexual and reproductive health. The sexual situations include difficulties or problems with sexual development, knowledge about sexual matters, sex-related behaviours, and romantic relationship experience. The romantic relationship experiences are their own and as perceived in their peers. Chapter 3 describes the sexual situations as found in the Study I, while Chapter 4 describes the sexual situations among dating couples of the Study II.

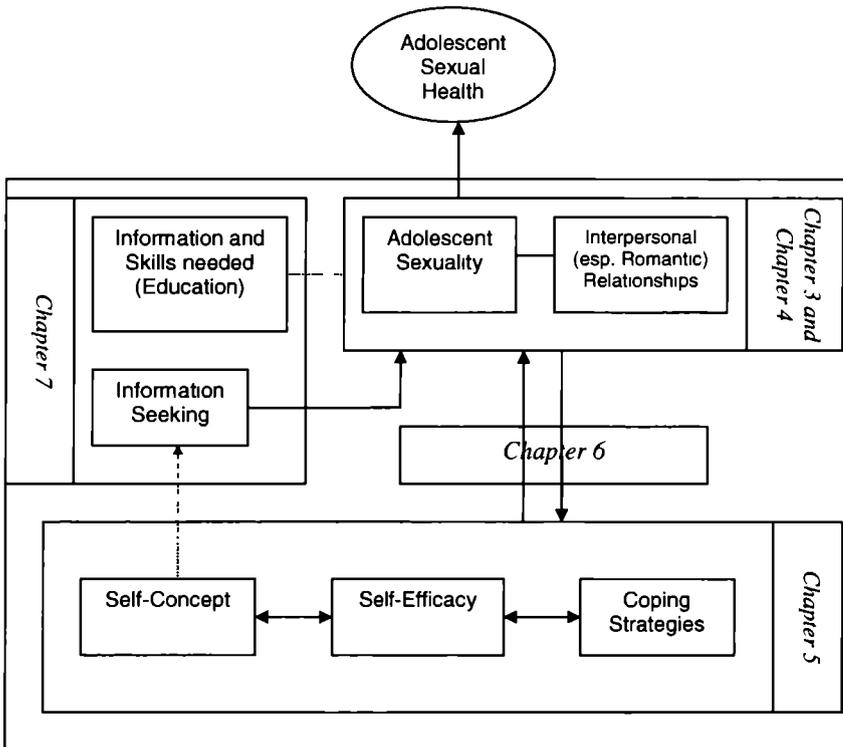


Figure 2.2: The Working Model of the Project and the Organisation of the Report

As described in the working model of this research project, the sexual situations are assumed to be related to personal resources of the individuals involved. The personal resources examined in this project are coping, self-concept, and self-efficacy. Sexuality and romantic relationships, to some extent, give rise to tension or stress in adolescents and force them to do something to release the tension. Coping strategies are a way to deal with tension.

On the other hand, the ways of coping might influence the interpersonal situations of the people involved. The personal resources may be also related to each other. Chapter 5 deals with coping, self-concept and self-efficacy. Following the separate descriptions of sexual situations and personal resources, Chapter 6 examines the relations between the sexual situations and personal resources.

Chapter 7 summarizes the support processes in adolescent sexual health. Adolescent sexuality and interpersonal relationships are assumed to be related to information exchange processes. The processes include the sources adolescents use in seeking information about sexual matters, what information they need to know, and what skills they have to master in relation to their sexual and interpersonal development. It is believed that these information processes are supportive of the sexuality and interpersonal relationship situations of adolescents. The data about the support processes were gathered not only from adolescents as the “experts”, but also from other involved parties and “experts” such as parents, teachers, and young adults.

To conclude this dissertation, Chapter 8 presents a discussion of the practical implications of the research findings for developing sexuality education for adolescents. The implications include the need for, contents of, and implementation of sexuality education in senior high school.

References

- Archibald, A. B., Graber, J. A., & Brooks-Gunn, J. (2003). Pubertal processes and psychological growth in adolescence. In G. R. Adams & M. D. Berzonsky (Eds.), *Blackwell Handbook of Adolescence*. Malden: Blackwell Publishing.
- Bandura, A. (1997). *Self-efficacy: The Exercise of Control*. New York: W. H. Freeman and Company.
- Collins, W. A. (2003). More than myth: The developmental significance of romantic relationships during adolescence. *Journal of Research on Adolescence*, 13, 1-24.
- Connolly, J., & Goldberg, A. (1999). Romantic relationships in adolescence: The role of friends and peers in their emergence and development. In W. Furman et al. (Eds.), *The Development of Romantic Relationships in Adolescence* (pp 266-290). New York: Cambridge University Press.
- Dinas Kesehatan Provinsi Jawa Tengah. (1999). *Profil Kesehatan Provinsi Jawa Tengah 1999 (The Health Profile of the Central Java Province 1999)*. Semarang. Kantor Wilayah Departemen Kesehatan Provinsi Jawa Tengah dan Dinas Kesehatan Propinsi Jawa Tengah.
- Djaja, S., Surjadi, C., & Susilawati, C. (2002). *Kebijakan dalam kesehatan reproduksi. Materi informasi (Policies in reproductive health. Information materials)*. Jakarta: Jaringan Epidemiologi Nasional (JEN) in cooperation with Ford Foundation.
- Furman, W., & Shaffer, L. (2003). The role of romantic relationships in adolescent development. In P. Florsheim (Ed.), *Adolescent Romantic Relations and Sexual Behavior: Theory, Research, and Practical Implications*, pp. 3-22. Marwah, New Jersey: Lawrence Erlbaum Associates.

- Furman, W., & Wehner, E. A. (1997). Adolescent romantic relationships: A developmental perspective. In S. Shulman & W. A. Collins (Eds.), *Romantic relationships in adolescence: developmental perspectives* (pp. 21-36). San Francisco: Jossey-Bass Publishers.
- The International Conference on Population and Development. (1994). *Programme of Action of the International Conference on Population and Development*
- Jackson, S. & Bosma, H. (1990). Coping and self in adolescence. In H. Bosma & S. Jackson (Eds.), *Coping and self-concept in adolescence* (pp 1-11). Berlin Heidelberg: Springer-Verlag.
- Jackson, S., Jacob, M. N., Landman-Peeters, K., & Lanting, A. (2001). Cognitive strategies employed in trying to arrange a first date. *Journal of Adolescence*, **24**, 267-279.
- The Jakarta Post. (2002). Teen sex education panned. *The Jakarta Post*, Friday, January 4, 2002.
- Kilbourne-Brook, M. (2000). Kesehatan reproduksi remaja: Membangun perubahan yang bermakna (Adolescent reproductive health: Making a difference). *Outlook 16*, 1-8. PATH & UNFPA. <http://www.path.org/publications/pub.php?id=695>. Retrieved on March 21, 2003.
- Komisi Penganggulangan AIDS. (2005). *Country report mengenai tindak lanjut deklarasi komitmen HIV/AIDS (UNGASS) (Country report on the follow-up of the declaration on HIV/AIDS commitment)*, Periode pelaporan 2003-2004. Jakarta: Komisi Penganggulangan AIDS.
- Marsh, H. W. (1989). *Self Description Questionnaire (SDQ) III Manual*. Sydney: University of Western Sydney Macarthur.
- Marsh, H. W. (1990). *Self Description Questionnaire (SDQ) II Manual*. Sydney: University of Western Sydney.
- The Ministry of Health, Republic of Indonesia. (1999). *Health development plan towards healthy Indonesia 2010*. Jakarta: The Ministry of Health, Republic of Indonesia.
- Moeliono, L. (2003). *Manual Untuk Fasilitator: Proses Belajar Aktif Kesehatan Reproduksi Remaja, Bahan Pegangan untuk Memfasilitasi Kegiatan Belajar Aktif untuk anak dan Remaja Usia 10-14 tahun (Manual for Facilitators: Facilitating Active Learning about Reproductive Health for 10-14 year-old adolescents)*. UNFPA, National Family Planning Coordination Board, and Indonesian Planned Parenthood Association.
- Nieder, T. & Seiffge-Krenke, I. (2001). Coping with stress in different phases of romantic development. *Journal of Adolescence*, **24**, 297-311.
- Peters, W. A. P. (1998). The self-concept of able young adolescents in China and the Netherlands: a comparative study. *Dissertation*, Katholieke Universiteit Nijmegen.

- Schwarzer, R. (1992). Self-efficacy in the adoption and maintenance of health behaviours: Theoretical approaches and a new model. In R. Schwarzer (Ed.). *Self-efficacy: Thought Control of Action*. Washington, etc.: Hemisphere Publishing Corporation.
- Seiffe-Krenke, I. (1990). Developmental processes in self-concept and coping behaviour. In H. Bosma & S. Jackson (Eds.), *Coping and self-concept in adolescence (pp 51-68)*. Berlin Heidelberg: Springer-Verlag.
- Seiffge-Krenke, I. (1995). *Stress, coping, and relationships in adolescence*. Marwah, N. J.: Lawrence Erlbaum Associates.
- Setyonaluri, D. H., Kusumaryani, M. S. W., Antarwati, E., Tobing, H. M., & Ahsa, A. (2005). Laporan hasil temuan survei pemahaman kesehatan reproduksi dan perkawinan usia dini. Kerjasama Badan Koordinasi Keluarga Berencana Pemerintah Propinsi Daerah Khusus Ibukota Jakarta dengan Lembaga Demografi Fakultas Ekonomi Universitas Indonesia (Reports of findings of the survey on reproductive health knowledge and early marriage. A joint cooperation between the Family Planning Coordination Board of the Jakarta City and the Demographic Institute, Faculty of Economics, University of Indonesia.). *Unpublished research report*.
- Shulman, S. & Kipnis, O. (2001). Adolescent romantic relationships: a look from the future. *Journal of Adolescence*, 24: 337-351.
- Steinberg, L. (2002). *Adolescence. (6th ed)*. New York: McGraw-Hill.
- Tandjung, A., et al. (2004). *Modul untuk Fasilitator: Proses Belajar Aktif Kesehatan Reproduksi Remaja, untuk Orang tua remaja dan Guru SLTP/SMU (Modules for Facilitators: Process of Active Learning about Adolescent Reproductive Health, for parents and High School Teachers)*. Indonesian Planned Parenthood Association, in cooperation with National Family Planning Coordination Board and UNFPA.
- Utomo, B. (2001). The availability and quality of data on reproductive health in Indonesia. *Journal of Population*, Vol. 7, No. 2, 59-76.
- Utomo, I. D. (2003). Adolescent reproductive health in Indonesia: Status, policies, programs, and issues. POLICY Project.
www.policyproject.com/pubs/countryreports/ARH_Indonesia.pdf. Retrieved on October 6, 2006.
- Utomo, I. D. & Mc Donald, P. (1999). New approach to studying young people's sexuality and reproductive health behaviour: A case study of Indonesia. *Article prepared for the Seminar on Social Categories in Population Health, Cairo, 15-18 September 1999*.
- Wellings, K. & Field, B. (1996). Sexual behaviour in young people. *Bailliere's Clinical Obstetrics and Gynaecology*, 10, 139-159.
- Winarno, R. D. (2003). Pengetahuan dan Pengalaman Remaja berkaitan dengan Perkembangan Psikoseksual Mereka (Adolescent knowledge and experiences related to their psychosexual development). *Seri Kajian Ilmiah*, 12, 27-36.

The World Health Organization. http://www.who.int/reproductive-health/gender/sexual_health.html. Retrieved on October 6, 2006.

**Indonesian Adolescent Sexuality and Romantic Relationships:
Exploratory Studies**

Chapter 3:

THE SEXUAL SITUATIONS OF CENTRAL JAVA ADOLESCENTS

1. Introduction

This chapter examines the sexual situations of Central Java adolescents. The situations are comprised of experiences which are closely related to the following topics: dating relationships, sex-related behaviours, knowledge about sexual matters, and problems associated with psychosexual development. The students reported their own experiences or behaviours and their perceptions of similar activities by their friends. The participants of this study are senior high school students and teachers, parents, and young adults.

The main purpose of the Central Java Adolescent Sexuality Research Project is to identify the various aspects that underlie adolescent needs for sexuality education. It is assumed that adolescent needs are related to their current situations and experiences. Hence it is important to have accurate background information concerning the adolescent situation with regard to experiences related to sexuality. Both their own experiences as well as their perceptions of what happens among their peers is important because the experience itself and social perceptions may at some point interact with each other (e.g. Steinberg, 2002; Masters, Johnson, & Kolodny, 1995; Brown, 1999). This chapter gives an empirical description of the sexual situations of Indonesian (Central Java) adolescents. The description includes experiences related to intimate (romantic) relationships, sexual behaviours, knowledge about sexual matters, and problems related to psychosexual development.

Problems associated with psychosexual development are included in this study because it is assumed that although the senior high school students (mostly aged 15-19 years) have passed the pubertal period, they may still have problems related to psychosexual development (Steinberg, 2002; Santrock, 2001; Archibald, Graber, & Brooks-Gunn, 2003). The problems may be due to an early or late sexual maturation, others' reactions, and self-acceptance. The pilot study of this research (Winarno, 2003a) found that senior high school students still have problems related to their sexual development, concerning issues such as menstruation, breast development, nocturnal emission, and pubic hair development.

Research and publications on adolescent relationships usually assume that adolescents have been in dating relationships (*pacaran*) (e.g. Furman, Brown, & Feiring, 1999; Shulman & Collins, 1997; Duemmler & Kobak, 2001; Zimmer-Gembeck, Siebenbruner, & Collins, 2001; Goldstein & Tisak, 2004; Kaestle, Morisky, & Wiley, 2002; Setyonaluri, Kusumaryani, Antarwati, Tobing, & Ahsa, 2005). These studies focus on many aspects of dating relationships, such as commitment, coping, psychosocial functioning, relationships with friends, and relationships with parents. However, some studies also include dating status as a topic of investigation (e.g. Connolly, Craig, Goldberg, & Pepler, 2004; Cooksey, Mott, & Neubauer, 2002; Youn, 1996).

Many other studies on adolescent sexuality pay more attention to the sexual behaviours of young people involved (e.g. Miller, Forehand, & Kotchick, 1999; Forste & Haas, 2002; Kaestle et al, 2002; Deptula, Henry, Shoeny, & Slavick, 2006; Wight, Williamson, & Henderson, 2006; Aspy et al., 2007; MacLean, 2004; Gebhardt, Kuyper, & Dusseldorp, 2006). The sexual behaviours investigated are mainly (but not exclusively) sexual intercourse, number of sex partners, and protective action against pregnancy or diseases. Some studies, especially those carried out in an Indonesian context, also include sexual behaviours other than intercourse, such as kissing, hugging, and other non-coital behaviours (Utomo, 2003; Setyonaluri et al., 2005; also Kaltiala-Heino, Kosunen, & Rimpela, 2003; Schwartz, 1999; Youn, 1996). In research conducted in 1995, Utomo (2003) found that among 519 15-19 years old adolescents in Jakarta, 23.5% reported having done lip kissing, and 1.4% had been involved in intercourse. Among 15-24 years olds, a higher

percentage of males reported that they had been involved in sexual behaviours. It was also reported that more non-islamic than islamic respondents engaged in these behaviours. Setyonaluri et al. (2005) conducted research on 2271 single and married participants between the ages of 15-24 years in Jakarta. They found that 53.8%, 12%, and 2.3% of 15-19 age group reported involvement in lip kissing, rubbing partner's sex organ, and having intercourse, respectively.

Research on adolescent knowledge about sexuality indicates that there are many young people who are misinformed. Setyonaluri et al. (2005) reported that about 40% of young people aged between 15-19 years believe that "having sex once" may not make a woman pregnant. The number of young people between the ages of 15-24 years old who know about the female fertility period is "more than 60%". Winarno (2003a) found that senior high school students in Semarang (mostly aged 15-19 years) know more about female fertility than male fertility. In contrast to the finding of Setyonaluri and colleagues, Winarno found that about 85% of the 187 students knew that "having sex just once" may bring about pregnancy.

The patterns of adolescent relationships and sexual behaviours between Indonesian young people and adolescents in western countries are different because of differences in socio-cultural background. Therefore, this study on Central Java adolescent sexuality is more in line with previous studies conducted in Indonesia. This research includes coital as well as non-coital behaviours. Questions about these behaviours were given to various groups of participants. Knowledge about sexual matters, which to some extent influences sexual behaviours, is also covered in this study. Although a lot of research on adolescent romantic relationships may have been conducted in Indonesia, there have not been many publications of this research. Hence, this study on adolescent sexuality includes the dating experiences of students as a topic of investigation. The dating experiences includes both personal dating relationships and perceptions about the romantic relationships of peers.

2. Method

This chapter examines adolescents in Central Java in terms of their dating relationships, knowledge about sexual matters, problems associated with psychosexual development, and sex-related behaviours, such as consumption of pornographic material, pregnancy, and abortion. A combination of reports on one's own experiences and reports of perceptions of others' experiences was chosen for this study for two reasons that have to do with the fact that sexuality is closely related to social norms and values. Therefore, there is a high probability that answers to questions about one's own sexual experiences are influenced by social desirability. The first reason for using both reports of one's own behaviours and of perceptions of other's behaviours is to lower the threshold of the social desirability effect. The second reason is that, by using different ways of obtaining data, checking the concordance between data from different points of view is a possible way to estimate the size of the social desirability effect.

In this study, the terms "dating relationship" and "romantic relationship" are translations of the Indonesian word "pacaran". The terms "boyfriend" and "girlfriend" are translations of the Indonesian word "pacar", which means a person with whom you have a romantic relationship. The word "pacar" is applicable to both males and females. To refer to male and female identify the word "gender" is used instead of "sex". However, the terms "same-sex" and "opposite-sex" are still used in this report because of the familiarity of these terms rather than "same-gender" and "opposite-gender".

This study is aimed at obtaining information about the sexual situation of Central Java adolescents, and so is more descriptive and exploratory. The statistical analyses used are non-directional (two-tailed) analyses, except when there is an explicit indication

otherwise. Non-directional analyses were selected because there were no strong hypotheses in this area of study.

2.1. Participants

There were five groups of respondents in this study: in-school students, out-school students, teachers, parents, and young adults. In-school students were senior high school students who completed the questionnaire in school. Out-school students are also senior high school students, but they were recruited outside of school and completed the questionnaire outside of school. The teachers were senior high school teachers at the same schools as the in-school students. The parents selected for this study had an adolescent child or children. The young adults were between the ages of 21-25 old and not yet married.

Senior high school students were the main participants of this study. It was expected that they would provide information about adolescent sexuality and interpersonal relationships from an insiders' point of view, from "their own world". By using both in-school and out-school students it was hoped that this would provide complementary information about the research topics. Many questions for in-school and out-school students are different from one group to another.

Teachers and parents were recruited as participants because they live and deal with adolescents and have an interest in adolescent development. As they are involved in shaping adolescent development, they were expected to provide important information about adolescents from their own point of view. Young adults may have a different view on adolescent life. With their "experienced eyes", they can see adolescent life from the perspective of just having passed through that phase themselves.

The research was conducted in six regions of Central Java, namely Semarang City, Semarang Regency, Kudus Regency, Pekalongan City, Kebumen Regency, and Pemalang Regency. The selection of the regions is mainly based on the Maternal Mortality Ratio (MMR) 1999 of the Central Java Province. The selection process was described in detail in Chapter 2.

The number of participating *students* was 10,832, and consists of in-school students ($n=10,608$) and out-school students ($n=224$). The *in-school* students were from various types of schools, namely public, Islamic, Catholic, Protestant, and national schools. The ages of in-school students range from 14 to 20, with the Mean of 16.82 years. The students were 46% males and 54% females. Seventy-nine percent of them were Islamic, 8% Catholic, 11% Protestant, 1% Buddhist, and the rest fell into the category of either Hindu or other religions. The age range of *out-school* students was 14 to 20, with the Mean of 16.97 years. Forty-six percent of them were males. The religious affiliations of out-school students were Islam (67%), Catholic (19%), Protestant (13%), and Buddhist (1%).

The mean age of *teachers* was 37.8 years, with 51% male and 49% female. Most were married (84.2%). Twenty percent of the teachers had at least one child aged 15-19.

The *parents* were recruited incidentally in the regions of the survey. Their mean age was 45.5 years, with 42% males and 58% females. The religious affiliations were 64% Islamic, 18% Catholic, 16% Protestant, and the rest Buddhist or Hindu. Most of them (97%) had at least one child as old as Senior High School students at the time of data collection.

Young adults were also recruited incidentally in the six areas of survey. Their mean age was 22.5 years. All were unmarried, with 53% males and 47% females. Regarding their status, 48.5% were university students, 37.9% were working, and the rest were unemployed. More than half of them (54%) had brother(s) or sister(s) aged 15-19 years. A summary of gender and age of all groups of participants is summarized in Table 3.1.

Table 3.1.: Gender composition, Age range and Age Mean (in years) of Participants

Groups	Male (%)	Female (%)	Age range (Years)	Age Mean (Years)	N
In-school students	46	54	14-20	16.82	10,608
Out-school students	46	54	14-20	16.97	224
Teachers	51	49	21-67	37.8	591
Parents	42	58	35-67	45.5	382
Young adults	53	47	21-25	22.5	341

2.2. Questionnaires

This study used different questionnaires for the various groups of participants. Some questions were asked to all participants, while some other questions were specific for certain groups of respondents. The two groups of student respondents were asked whether they had been in dating relationships (*pacaran*), and how many of their friends had been in dating relationships. They were also asked how many of their friends had been pregnant or had made other(s) pregnant in the last year, and how many friends had been infected with sexually transmitted infections (STI) in the last year. Questions for the other groups (teachers, parents, and young adults) were how many senior high school students had been in dating relationships, had been pregnant or made other(s) in the previous year, and how many students had been infected with STI in the previous year.

In addition to these questions, each of the two groups of students received different questionnaires, which differed in terms of content and the context where the data were collected. In this chapter the term “in-school data” refers to data collected from in-school students, while “out-school data” refers to data from out-school students. Moreover, the terms “in-school students” and “in-school adolescents” are used interchangeably, as are the terms “out-school students” and “out-school adolescents”.

The sexual situation questions for in-school adolescents concerned the respondents’ own and their peers’ dating experience, knowledge about sexual matters, and problems related to psychosexual development. Questions about the sexual situation of out-school respondents covered their own dating experiences and sex-related behaviours, and their perceptions about peer experiences and sex-related behaviours. The behaviours were consumption of porn materials and sexual behaviours such as kissing, intercourse, and involvement in abortion. A question about same-sex attraction is also included. Questions about their own experience in this part of study, i.e. about sex-related behaviours, use frequency options (“Never”, “Once”, “Sometimes”, “Often”, and “Very often”), while questions about peers use quantity-related options, i.e. “None”, “Some”, “Many”, “Very many”, and “All/almost all”. Because the respondents might not know about their friends’ activities, “Don’t know” was included as a response option. A summary of the topics investigated and the participants asked is summarized in Table 3.2.

This chapter uses the data from in-school students as the main reference of the report. When there is no indication about data source, the report is about in-school data. When data from other groups are reported, there is an explicit indication about the data source.

Table 3.2: Topics of Investigation give to each group of participants (=Yes)

No	Topics	Answer Options	IS	OS	T	P	YA
1.	Own dating experiences (students)	<i>Never to More than twice</i>			-	-	-
2.	School friends' dating experiences	<i>None to Almost All</i>			-	-	-
3.	Play friends' dating experiences	<i>None to Almost All</i>	-		-	-	-
4.	Dating experiences of students in respective schools	<i>None to Almost All</i>	-	-		-	-
5.	Dating experiences of students in respective areas	<i>None to Almost All</i>	-	-	-		
6.	Student pregnant	<i>None to Ten or more</i>		-			
7.	Student making other pregnant	<i>None to Ten or more</i>		-			
8.	STI among students	<i>None to Ten or more</i>		-			
9.	Knowledge about sexuality	<i>True or False</i>		-	-	-	-
10.	Psychosexual problems	<i>Never to Very often</i>		-	-	-	-
11.	Own sex-related behaviours	<i>Never to Very often</i>	-		-	-	-
12.	Friends' sex-related behaviours	<i>None to All/Almost all, plus Don't know</i>	-		-	-	-

Note.

- 1) IS: In-school Students; OS: Out-school Students; T Teachers; P: Parents; YA Young Adults
- 2) STI: Sexually Transmitted Infections
- 3) Questions about one's own and friends' involvement in intercourse, pregnancy, and STI for out school students are included in the questions about own sex-related behaviours, and friends' sex-related behaviours (Topics no. 11 and 12)

3. Results

The results are presented according to questionnaire topics, not to groups of participants. The topics are presented in the following order: adolescent romantic experiences, out-school students' report on sex-related experiences, knowledge about sexuality, and problems with psychosexual development. In certain cases, however, results from specific groups are presented separately, such as data about sex-related behaviours from out-school students and data about knowledge and psychosocial problems from in-school students.

3.1. Adolescent intimate experiences – in-school students and other parties

The descriptions about adolescent intimate experiences cover experiences in romantic relationships and the possible consequences of such relationships, such as pregnancy and sexually transmitted infections. The descriptions start with adolescents'

reports which are followed by reports of the other parties (parents, teachers, and young adults). There are also descriptions of the adolescent experiences according to socio-demographic conditions (regions, school types, and religious affiliation).

3.1.1. Adolescents' reports

The majority of the in-school students (67.6%) reported having had experiences in romantic or dating relationships (*pacaran*). Only a small number of respondents (1.5%) perceived that *none* of their peers had a boyfriend or girlfriend (See Table 3.3). More females than males reported having experience in dating relationships. More females also reported that their school friends had been in romantic relationships. Regarding knowledge about the consequences of sexual behaviours among students, more females reported knowing senior high school students having been involved in pregnancy, but more males reported knowing senior high school students having been infected with sexually transmitted infections in the last one year.

As presented in Table 3.3, there was no or only a very low correlation between the reported or perceived frequency of intimate experiences and age or semester. The low correlation coefficients mean that differences in age and semester among the recruited students in various schools and various regions have almost no relation to the student reported experiences and perception about friends.

Table 3.3: Self-reported experiences and perceptions about friends' experiences and the correlates

Items	Male (%)	Female (%)	All (%)	Rho with Age	Rho with Semester	M-F Difference (χ^2)	N (All)
Having boyfriend/girlfriend (self)	63.1	71.4	67.6	.11**	.09**	97.72**	10533
No school friends have boyfriend/girlfriend	1.7	1.3	1.5	NS	.05**	302.61**	10561
Knowing at least one student pregnant in the last one year	60.5	74.1	67.9	NS	.10**	231.8**	10550
Knowing at least one student who made other(s) pregnant in the last one year	49.4	54.4	52.1	.02*	.07**	33.44**	10544
Knowing at least one student infected with a sexual infection in the last one year	8.8	6.2	7.4	.03**	NS	34.14**	10544

Spearman correlation analyses are two-tailed **): significant at level .01, *) significant at level .05, NS: not significant

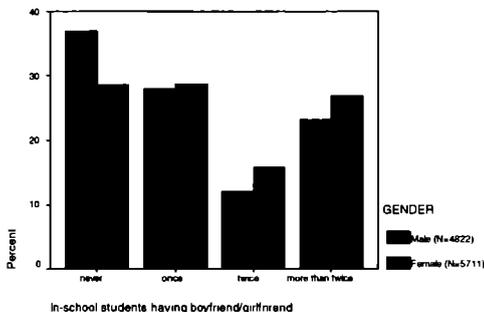


Figure 3.1: Percentage of each gender with experiences in dating relationships

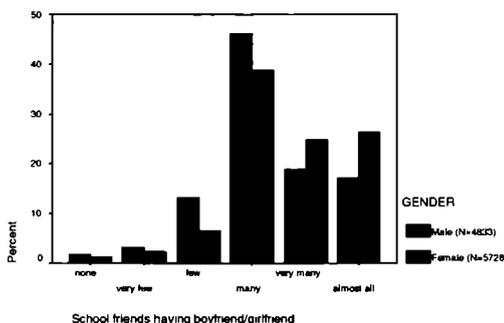


Figure 3.2: Percentage of each Gender Perceiving Peers' Dating Experiences

Figures 3.1 and 3.2 give more detailed information about the differences between males and females in their dating experience and how they perceived their school friends' intimate experiences. Figure 3.2 indicates that the majority of respondents perceived that many to almost all of their friends have been in dating relationships. This perception is correlated with self-reported dating relationship ($\rho = 0.30, p < 0.001$). Partial correlation analysis with age partialled out indicates that the result is the same as the uncorrected rank order correlation coefficient ($r_{self\ friends.age} = 0.30, p < 0.001$). Chi-square analysis found that the perception about romantic experiences of friends (all males and females together) is differently distributed across the ranked groups (from "None" to "Almost all") ($\chi^2 = 7503, p < 0.001$). Male and female reports about friends' experiences are also significantly different from each other ($\chi^2 = 303, p < 0.001$).

3.1.2. Reports of the other groups of participants

In addition to in-school adolescents, teachers, parents, and young adults were also asked how many high school students had boyfriends or girlfriends. It is important to note that there is a minor difference between the questions for adolescents (students) and teachers on one hand and the questions for parents and young adults on the other hand. The difference is related to the coverage of the question. For the students, the question was about "your school friends" and the question for the teachers was about "students in this school". Actually the different formulations of questions for students and teachers refer to the same

objects (senior high school students of the same schools) because the teachers were from the same schools which had been selected for the student survey. On the other hand, the question for parents and young adults was about “senior high school students in this area”. Although there is difference in coverage, comparisons between the four groups of participants (adolescents, teachers, parents, and young adults) in perceiving student dating experiences were done with some considerations. First, although the coverage is different, all the questions are about dating experiences of senior high school students in the six selected regions in Central Java. Second, the questions used the same answer alternatives. The answer options are not absolute numbers but rather of a relative amount, namely “None”, “Very few”, “Few”, “Many”, “Very many”, and “Almost all”. Third, all types of schools spread out over each area were selected for this study. It is assumed that the students recruited in this study are sufficiently able to represent the students in their region. Hence, answers on questions about “your school friends” and “students in this school” may reflect the situations of students in the respective area. Fourth, Chi-square analysis of *student* responses, which covered their school friends, revealed a significant difference between the expected and observed distribution of answers about the dating experience of school friends ($\chi^2 = 7502$, $p < 0.001$). A Chi-square analysis of *teacher* responses to a similar question, which covered “students in this school”, also found a significant difference between the observed and expected distribution ($\chi^2 = 691$, $p < 0.001$). Those significant results reflect the general situation of senior high school students in the respected areas. In spite of those considerations, comparison between groups in this topic should be done with caution.

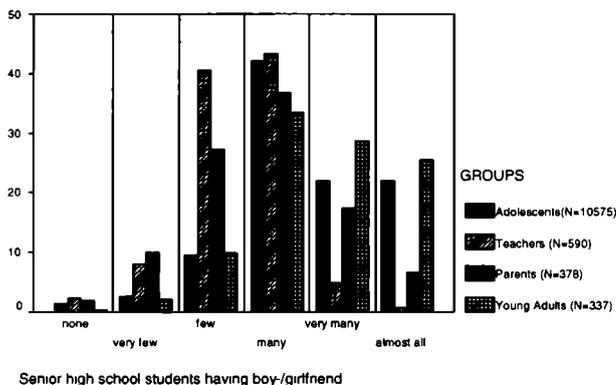


Figure 3.3: Percentage of Students, Teachers, Parents, and Young Adults Perceiving Students' Dating Experiences

Figure 3.3 illustrates the percentages of perceived frequencies of dating relationships by students, teachers, parents, and young adults. Kruskal-Wallis Test revealed that the perceptions of the four groups of participants about the dating situations of high school students is different from one another ($\chi^2 = 675$, $p < 0.001$). Pair group comparisons with Kolmogorov-Smirnov Test found that the perceptions of each group about student dating experience is significantly different from each other. Although statistically different, the frequency distributions of the perception of adolescents and young adults look similar to each other. On the other hand, the teachers' perception is the most different from the perception of the students and young adults. Parents' perception is in between the perception

of the other groups. Using the student report as the standard, it seems that teachers and parents underestimated the number of romantic relationships among adolescents, while young adults overestimated the number of relationships.

The perceptions of the non-adolescent groups (teachers, parents, and young adults) about the occurrence of risks and consequences of student romantic relationships are also different from the perception of the students themselves. As shown in Table 3.4, a higher percentage of young adult respondents reported that they knew at least one risk related occurrence than did the other three groups. The percentage of adolescents who perceived a risk related occurrence was lower than that of young adults, but higher than for teachers and parents. Parents had the lowest percentage of perceived occurrences of the risks of romantic relationships among high school students.

Table 3.4: Percentage of each group perceiving occurrence of negative consequences of romantic relationships among senior high school students

Items	Students (Adolescents)	Teachers	Parents	Young Adults
Knowing at least one student pregnant in the last year	67.9	60.4	54.9	71.0
Knowing at least one student making other(s) pregnant in the last year	52.1	47.9	46.9	63.9
Knowing at least one student infected with sexual infections in the last year	7.4	3.2	2.2	18.5

Table 3.5 provides a more detailed breakdown of the perceived pregnancies data. Regarding the number of student pregnancies in the last year, the groups of participants have a different perception ($\chi^2=132; p<0.001$). Table 3.6 provides a more detailed breakdown of the data pertaining to knowing student(s)making other(s) pregnant. The reports from different groups of participants are significantly different ($\chi^2=81, p<0.001$).

Table 3.5: Percentage of participants reporting students pregnant in the last one year

Percentage of participants reporting Student being pregnant in the last one year

		GROUPS				Total
		Adolescents	Teachers	Parents	Adults	
Students pregnant	none	32.1%	39.6%	45.1%	29.0%	32.8%
	1-3 persons	59.1%	54.3%	48.3%	49.0%	58.3%
	4-6 persons	5.0%	3.9%	3.4%	10.1%	5.0%
	7-9 persons	8%	7%	3%	1.5%	.8%
	10 or more persons	2.9%	1.5%	2.9%	10.4%	3.1%
Total		10564	589	377	335	11865
		100.0%	100.0%	100.0%	100.0%	100.0%

Table 3.6: Percentage of participants reporting students making other(s) pregnant in the last one year

Percentages of participants reporting Students making others pregnant in the last one year

		GROUPS				Total
		Adolescents	Teachers	Parents	Adults	
Students making others pregnant	none	47.9%	52.1%	53.1%	36.1%	47.9%
	1-3 persons	44.7%	43.8%	41.1%	45.4%	44.5%
	4-6 persons	3.7%	2.4%	2.7%	9.6%	3.7%
	7-9 persons	8%	5%	1.1%	2.1%	.8%
	10 or more persons	3.0%	1.2%	2.1%	6.9%	3.0%
Total		10558	585	377	335	11855
		100.0%	100.0%	100.0%	100.0%	100.0%

3.1.3. Comparisons between socio-demographic groups

To determine whether there were any differences among the socio-demographic groups of students, Chi square analyses were performed on the in-school data, examining religion and school types. The distribution of respondents who have been in dating relationships (*pacaran*) varies both across religion ($\chi^2=120, p<0.001$) and school types ($\chi^2=415, p<0.001$). In general more Islamic respondents and students of national (private) and Islamic (private) schools reported that they had a boyfriend/girlfriend than students from other groups. These results are presented in Table 3.7 and Table 3.8.

Table 3.7: Percentage of In-school Students reported having experiences in a dating relationship according to Religious Affiliation

Religious Affiliation	N	Having boy-/girlfriend (%)				Total
		Never	Once	Twice	More than twice	
Islamic	8355	31.3	28.7	14.2	25.8	100
Catholic	851	36.4	25.9	14.8	22.9	100
Protestant	1186	35.7	28.6	12.4	23.4	100
Buddhism	101	50.5	21.8	13.9	13.9	100

Table 3.8: Percentage of In-school Students reported having experiences in a dating relationship according to School Type

School Type	N	Having boy-/girlfriend %				Total
		Never	Once	Twice	More than twice	
Public	3702	38.9	27.7	13.5	19.9	100
Islamic	2592	28.4	28.9	14.6	28.1	100
Catholic	1478	35.3	27.5	14.3	22.9	100
Protestant	974	31.6	27.4	13.1	27.8	100
National	1801	22.8	30.4	14.6	32.2	100

The relation between region and student romantic experiences was also examined. As illustrated in Table 3.9, more students in Semarang Regency had at least one boyfriend or

girlfriend (78.6%) while 35.3% had had more than 2. The students in Semarang City and Pemalang Regency dated the least. It should be noted that the order of areas is associated with the rank of the Maternal Mortality Ratio (MMR). A lower rank indicates a lower MMR. The MMR was deduced from the annual statistic reported by the Office of Health of the Central Java Province in 1999. Spearman correlation analysis revealed that the correlation between MMR rank and having experiences in a dating relationship was very low ($\rho = -0.08$; $p < 0.01$).

Table 3.9: Percentage of In-school Students who have been in a dating relationship by Region

Region (City/Regency)	Rank of MMR	N	Having had boy-/girlfriend %				
			Never	Once	Twice	More than twice	Total
Semarang City	1	2869	30.8	25.3	14.2	29.7	100
Pekalongan City	2	1333	36.5	27.5	14.0	22.0	100
Semarang Regency	3	1613	21.5	26.3	17.0	35.2	100
Kudus Regency	4	1521	38.0	30.0	11.2	20.7	100
Kebumen Regency	5	1520	37.7	29.6	13.0	19.7	100
Pemalang Regency	6	1691	32.6	33.8	14.3	19.3	100

Chi-square analyses performed on reported cases of pregnancy involving senior high school students, whether being pregnant or making other(s) pregnant, for Region, School type, and Religious affiliation of the students. The analyses revealed significant differences in reported pregnancy cases across region, over school type and religious affiliation. All the Chi-square (χ^2) values were significant at $p < 0.001$. Correlations between reported cases of involvement in pregnancy and region (MMR) were $\rho = -0.17$ ($p < 0.001$) for students being pregnant and $\rho = -0.16$ ($p < 0.001$) for students making other(s) pregnant. This means that students in the lower ranked MMR districts tend to report more cases of students who are involved in pregnancy. In-school adolescent reports of students being pregnant and students making other pregnant are correlated with each other ($\rho = 0.61$, $p < 0.001$)

3.2. Out-school student reports

Data from out-school students will be reported separately because there are some questions specific to this group of participants. The specific questions concern one's own sex-related activities and perceptions of the same activities among friends.

3.2.1. Intimate experiences – out-school students

Out-school data about intimate relationships reveal a similar pattern as that of in-school data and data from the adult participants (teachers, parents, and young adults). Most of the respondents reported that they had been involved in intimate relationships and perceived that most of their friends had been in the same situation. Only one of 223 respondents reported having been involved in pregnancy (being pregnant or making other pregnant), while 24.2% of the respondents perceived that at least one of their friends had been involved in pregnancy. A significant correlation with age was found on some reported experiences and behaviours, but the correlations were low. The complete results are presented in Table 3.10.

Table 3.10: Percentage of out-school students reporting own and friends' intimate experiences

Items	Male (%) (N=101)	Female (%) (N=117)	All (%) (N=224)	Rho with Age
Having boyfriend/girlfriend (self)	65.3	70.9	69.1	.16*
No school friends has boyfriend/girlfriend	3.0	2.6	2.7	.12
No playing friends has boyfriend/girlfriend	1.0	3.4	2.2	.15*
Involvement in intercourse at least once (self)	10.9	0.9	5.8	.18*
Knowing at least one friend who has been involved in intercourse	36.7	20.0	28.0	.21**
Involvement in pregnancy at least once (self)	1.0	0.0	0.5	.00
Knowing at least one friend who has been involved in pregnancy	22.2	26.1	24.2	.13
Infected with sexual disease at least once (self)	1.0	0.0	0.5	.00
Knowing at least one friends infected with sexual disease	6.1	0.0	2.8	.00

Table 3.11 presents Spearman correlation analyses on dating experience and sexual intercourse, for both self-involvement and perceptions of friends' behaviours. The analysis found that one's own dating experiences were correlated with reports on dating experiences of friends (school friends as well as out-of-school friends) and involvement in intercourse. Self-reported intercourse was also correlated with perception about friends' involvement in intercourse.

Table 3.11: Correlation matrix between some experiences associated with sexuality

Spearman's correlation coefficient of some experiences related to sexuality (N=224)

VARIABLES	Var (1)	Var (2)	Var (3)	Var (4)	Var (5)
(1) having boy/girlfriend (self)	-				
(2) having boy/girlfriend (school friends)	.331**	-			
(3) having boy/girlfriend (playing friends)	.383**	.498**	-		
(4) intercourse (self)	.266**	.077	.216**	-	
(5) intercourse (friends)	.130	.119	.226**	.255**	-

** Correlation is significant at the 0.01 level (2-tailed).

3.2.2. Sex-related behaviours

Sex-related behaviours include personal behaviours and the perceived behaviours of friends. The behaviours range from watching porn pictures to intercourse and the possible

consequences of the behaviours. Analyses consist of correlation analyses, factor analyses, and comparisons between the groups.

Table 3.12 summarizes the correlations among self-reported sexual behaviours. Pearson correlation analysis revealed that sex-related behaviours are correlated with each other, but not always related to the risks or consequences of the behaviours (pregnancy, STI, and abortion). Among the sexual behaviours only reading porn stories, masturbation, and petting are correlated with risks, but the correlation coefficients are low.

Table 3.12: Correlation Matrix of Self-report about Sex-related Activities and the Risks

Pearson Correlation Matrix of Self-reported Sexual and Related Behaviours

VARIABLES	Var (1)	Var (2)	Var (3)	Var (4)	Var (5)	Var (6)	Var (7)	Var (8)	var (9)	var (10)	Var (11)
(1) watching porn pictures											
(2) reading porn stories	654**										
(3) watching porn movies	680**	645**									
(4) masturbation	508**	477**	641**								
(5) kissing	385**	409**	458**	370**							
(6) rubbing others' body	467**	415**	548**	484**	684**	-					
(7) rubbing others' sex organ	374**	306**	438**	442**	516**	576**	-				
(8) petting	346**	328**	383**	362**	497**	494**	722**				
(9) intercourse	392**	311**	426**	394**	459**	561**	692**	840**	-		
(10) pregnant/making pregnant	052	143*	014	117	059	034	094	217**	115	-	
(11) infected with STI	052	142*	014	117	059	035	091	217**	115	1 00**	-
(12) involvement in abortion	085	144*	052	159*	097	028	059	164*	082	816**	816**

** Correlation is significant at the 0.01 level (2 tailed)

* Correlation is significant at the 0.05 level (2 tailed)

Table 3.13 summarizes correlation analyses on the perception of friends' behaviours and reveals a somewhat, but meaningful, different result. The difference is that the sexual behaviours of friends is perceived to be more highly correlated with risky consequences. As an example, intercourse is correlated with all listed possible consequences, namely pregnancy, disease infection, and abortion. In the self-reported behaviours, intercourse was not significantly correlated with any of the risky consequences. The other results are similar to those of self-reported behaviours, i.e. there are significant correlations among the perceived behaviours.

Table 3.13: The correlation Matrix of Perception about Friends' Behaviours

Pearson Correlation Matrix of Perception about What Friends Do

VARIABLES	Var (1)	Var (2)	Var (3)	Var (4)	Var (5)	Var (6)	Var (7)	Var (8)	Var (9)	Var (10)	Var (11)
(1) watching porn pictures											
(2) reading porn stories	830**										
(3) watching porn movies	826**	808**									
(4) masturbation	433**	442**	461**								
(5) kissing (reciprocal)	330**	324**	382**	377**							
(6) rubbing others' body	346**	288**	350**	365**	512**						
(7) rubbing others' sex organ	265**	258**	245**	461**	360**	694**					
(8) petting	273**	305**	293**	600**	436**	575**	694**				
(9) intercourse	317**	363**	306**	513**	469**	415**	485**	671**			
(10) pregnant/making pregnant	161*	197**	164*	214**	388**	444**	446**	385**	611**		
(11) infected with STI	061	020	067	281**	187**	408**	533**	463**	394**	550**	-
(12) involvement in abortion	069	095	045	324**	258**	372**	504**	517**	539**	535**	712**

** Correlation is significant at the 0.01 level (2 tailed)

* Correlation is significant at the 0.05 level (2-tailed)

It is possible that there might be a structure that underlies the patterns of responses to the reported behaviours and perceptions. A number of factor analyses were performed to examine this hypothesis. Table 3.14 summarizes a principal component analyses with Varimax rotation on the out-school data about self-reported sex-related activities. A three factor solution was obtained. The factors were interpreted as “dyadic sexual activities”, “non-dyadic activities”, and “the consequences of sexual activities”. The dyadic sexual activities dimension consisted of reciprocal or lip kissing (*berciuman*), rubbing others’ body, rubbing others’ sex organ, petting, and intercourse. The non-dyadic activities comprised watching porn pictures, reading porn stories, watching porn movies, and masturbation. The consequences dimension included pregnancy, sexually transmitted infections, and abortion. It should be noted that kissing and the rubbing of others’ body loaded on the non-dyadic activities and dyadic activities factor. However, since the factor loadings of the two behaviours are higher in the dyadic rather than in the non-dyadic factor and the behaviours are dyadic in nature, they were included in the dyadic factor.

Table 3.14: Factor loadings of self-reported sex-related activities on three-factor solution

Rotated Component Matrix of Self-reported Sexual and Related Behaviours ^a

	Component		
	1	2	3
watching porn pictures		818	
reading porn stories		821	
watching porn movies		846	
masturbation		689	
kissing (reciprocal)	585	445	
rubbing others' body	619	515	
rubbing others' sex organ	848		
petting	888		
intercourse	877		
being pregnant/making pregnant			979
infected with sexually transmitted infections			979
involvement abortion			903

Extraction Method: Principal Component Analysis
 Rotation Method: Varimax with Kaiser Normalization

^a Rotation converged in 5 iterations. Factor loadings less than .40 are deleted

However, a factor analysis on the perceptions of peer behaviour identified only two factors having an Eigenvalue greater than 1. These can be interpreted as a non-dyadic factor and a risky dyadic activities factor. There are two points to note about the results of the factor analysis. First, masturbation and kissing had similar loadings on both factors (See Table 3.15). Taking into account the nature of behaviours (whether it can be done alone or should be with somebody else), and the factor loadings it was decided to include masturbation in the non-dyadic factor and kissing in the risky dyadic factor.

The second noteworthy point is that the dyadic behaviours and the risky consequences are load on the same factor. In self-reported activities, the behaviours and the risks loaded on separate factors. This means that, while respondents do not view the risks (pregnancy, sexual disease transmission, and abortion) as being related to *their own* sexual activities (kissing, rubbing, petting, or intercourse), they perceive that the risks are related to the sexual activities of *their friends*.

Table 3.15: Distribution of items over factors and factor loadings of the perception about sex-related activities of friends

	Component	
	1	2
watching porn pictures		908
reading porn stories		903
watching porn movies		913
masturbation	461	567
kissing (reciprocal)	455	435
rubbing others' body	656	
rubbing others' sex organ	771	
petting	755	
intercourse	711	
being pregnant/making pregnant	730	
infected with sexually transmitted infections	794	
involvement in abortion	819	

Extraction Method: Principal Component Analysis

Rotation Method: Varimax with Kaiser Normalization

^a Rotation converged in 3 iterations. Factor loadings less than .40 are deleted.

The patterns of behaviours may be influenced by socio-demographic factors such as Gender, the Region where respondents live, and Religion. A multivariate analysis of variance (MANOVA) on out-school data was done by entering as dependent variables the three factors of the self-reported sexual and related activities, and the two factors of the perception about friends' behaviours, and Gender, Region, and Religion as independent variables. Table 3.16 summarizes the factors for which significant effects were found. The analyses revealed that significant effects on some dependent measures were found only for Gender and Region. The non-dyadic activities of self and of friends were both significantly different across Gender. In both cases males had higher scores than females, meaning that males had more frequent engagement in non-dyadic sexual activities, and males also reported that more of their friends took part in non-dyadic sexual behaviours. There were also significant effects of self-reported involvement in non-dyadic behaviours and the consequences of sexual behaviours, and of perception about friends' involvement in risky dyadic behaviours across Regions. In the self-reported non-dyadic activities, students in Semarang City reported more frequent activities, whereas in reported involvement in the consequences, adolescents in Kudus reported more frequent involvement. Regarding perception about friends' behaviours, more students in Pemalang and Semarang Regency reported having more friends engaging in risky dyadic sexual activities. The estimated effect sizes of the differences (partial Eta squared) range from 0.07 to 0.10.

Table 3.16: Factors which have significant effects on sexual and related activities

Factors	Items	F	Partial Eta squared
Gender	Self-reported non-dyadic activities	17.74**	0.10
	Non-dyadic activities of friends	14.51**	0.08
Region	Self-reported non-dyadic activities	2.33*	0.07
	Self-reported involvement in consequences of sexual behaviours	2.68*	0.08
	Risky dyadic activities among friends	2.53*	0.07

*) significant at level .05; **) significant at level .01

3.2.3. Same-sex attraction

The questionnaire for out-school students included a question regarding same-sex attraction. This question was not asked to the other groups of participants because of the unfamiliarity of this topic and the social resistance to homosexuality (cf. Winarno, 2003b), although the question does not clearly address homosexuality. It was assumed that out-school students had less psychological and social resistance in answering this question because they were recruited and completed the questionnaire individually outside a school setting where there was less social pressure.

The results showed that four of the 223 the participants (1.7%) reported “once” and “sometimes” felt attracted to the same sex. In the perception about friends, however, 10% of respondents reported that “some” and “all/almost all” of their friends felt attracted to same sex persons. There is no difference between males and females in reporting same sex attraction of themselves and of their friends (t-tests, $p>0.05$ for both analyses). Incidentally, this question was not included in the factor analyses because concerned attraction and not sexual activities as such.

3.3. Knowledge about sexual matters

3.3.1. Construction and structure of questions

Knowledge about sexual matters was tested for only in-school students. Thirteen items were included on the test. The items cover both basic knowledge (i.e. about HIV and male fertility) and beliefs about sexuality (e.g. body hair, organ size, and virginity). The beliefs concerned on *mitos* (myths) about sexuality. The belief items were selected from frequently asked questions researcher had been asked in seminars or discussions with adolescents about sexuality in several schools, and from lists of myths made by Psychology students taking the Sexuality Education class at the Psychology Faculty of Soegijapranata Catholic University in Semarang.

There were 13 statements which were to be answered either “True” or “False”. For the belief about sexuality items, a “True” response was regarded as an agreement with the stated myth, while “False” was regarded as disagreement. Thus, disagreeing with a myth was regarded as demonstrating correct knowledge about sexuality. A total score of knowledge, interpreted as “well-informedness” was computed. Three types of analyses were executed, namely descriptive analysis, factor analysis, and group comparisons.

Table 3.17 presents the percentages of students who gave correct answers and the Mean and Standard Deviation of scores for each item. The table shows that many students had erroneous knowledge or had a lack of knowledge. Many items were answered incorrectly by the majority of the students.

Table 3.17: Percentage of Respondents giving a correct answer to each item, and Mean and SD of each item.

Item	Item No.	Correct Answer	Correct Answer (%)	Mean	SD
Women produce ovum more or less once a month	1	True	79.1	1.79	.41
Having sex only once will not make someone pregnant	8	False	79.0	1.79	.41
Condom use can prevent transmission of sexual diseases	13	True	78.5	1.78	.41
Men produce sperm once a month	4	False	73.6	1.74	.44
Sexually transmitted diseases can be prevented by taking medicine before having sex	9	False	72.4	1.72	.45
Physical appearance can indicate whether a person is infected by sexually transmitted diseases or not	10	False	63.6	1.64	.48
HIV can be transmitted through kissing	11	False	48.0	1.48	.50
Not following up sexual desires can make a person become crazy	12	False	45.2	1.45	.50
At certain times men are infertile (can not make pregnant)	2	False	41.5	1.42	.49
Body hairs indicate a person has high sexual desires	5	False	43.2	1.43	.50
The size of sex organs ensures satisfaction of having sex	7	False	37.7	1.38	.48
Under normal conditions women are always fertile (always can become pregnant)	3	False	36.3	1.36	.48
Body posture can indicate virginity of a woman	6	False	33.4	1.33	.47

The questionnaire consisted of two domains, i.e. basic knowledge and myths about sexuality. To check empirically whether these two domains could be extracted from the respondents answers, a factor analysis was performed. In fact, a principal component analysis with Varimax rotation revealed three factors underlying the knowledge test, namely (a) knowledge about female sexuality and beliefs associated with physical appearance, (b) knowledge about male sexuality and beliefs related to intercourse, and (c) beliefs associated with diseases. The first factor comprised 5 items with a Mean of 7.30, the second factor comprised 4 items (Mean=6.66), and the third factor comprised 4 items (Mean=6.35). The complete results are presented in Table 3.18.

Table 3.18: Total scores of each dimension of the knowledge test

Total scores	Number of Items	Hypothetical Range	Mean	SD
Knowledge about female sexuality and beliefs associated with physical appearance	5	5 – 10	7.30	1.26
Knowledge about male sexuality and beliefs associated with intercourse	4	4 – 8	6.66	0.99
Beliefs associated with diseases	4	4 – 8	6.35	1.02

3.3.2. Comparison of knowledge between groups

The responses of the student participants were compared in a MANOVA with the three factor scores as dependent variables and Region (6 levels), by School type (5 levels), by Semester (5 levels), and by Gender (2 levels) as independent variables. The factor scores are the total raw scores of the items included in each factor. The summary of MANOVA results are presented in Table 3.19.

Table 3.19: The results of MANOVA on three dimension scores of knowledge about sexuality

Effects	<i>F</i>	<i>p</i>	Partial Eta squared
Main Effect			
- Region	16.75	0.000	0.008
- School Type	15.40	0.000	0.006
- Semester	4.23	0.000	0.002
- Gender	20.11	0.000	0.006
Interaction Effect			
- Region x School Type	2.44	0.000	0.004
- Region x Semester	1.94	0.006	0.001
- Region x Gender	0.75	0.732	0.000
- School Type x Semester	5.29	0.000	0.006
- School Type x Gender	0.81	0.643	0.000
- Semester x Gender	1.20	0.279	0.000
- Region x School Type x Semester	2.34	0.000	0.002
- Region x School Type x Gender	1.33	0.049	0.002
- Region x Semester x Gender	1.73	0.020	0.001
- School Type x Semester x Gender	1.24	0.157	0.001
- Region x School Type x Semester x Gender	1.43	0.059	0.001

Table 3.19 shows that significant effects of respondents' knowledge on the three knowledge factors were found on all variables and on almost all interactions. The significance levels were mostly less than 1%; however, the estimated effect sizes (partial eta squared) are very low. Regarding the gender effect, females had more correct knowledge related to female fertility and beliefs related to physical appearance. In contrast, males

scored higher on knowledge about male fertility and beliefs related to intercourse. Compared to females, males also were also more well-informed about sex-related diseases.

Differences between regions were also found. In general, adolescents in Semarang City were more informed than their counterparts in other regions. The students in Pemalang and Kebumen scored lowest on all three dimensions of knowledge about sexual matters. An example of comparison between regions is presented in Table 3.20.

Table 3.20: Comparison between Regions in the Knowledge about Female Fertility and Beliefs related to Physical Appearance

Knowledge about Female Fertility and Beliefs related to Physical Appearance

Tukey HSD ^{a b}

REGION	N	Subset			
		1	2	3	4
Pemalang Regency	1702	6 84			
Kebumen Regency	1532		7 23		
Semarang Regency	1615		7 26		
Pekalongan City	1340		7 32	7 32	
Kudus Regency	1354			7 42	
Semarang City	2884				7 55
Sig		1 000	272	167	1 000

Means for groups in homogeneous subsets are displayed

Based on Type III Sum of Squares

The error term is Mean Square(Error) = 1 365

a Uses Harmonic Mean Sample Size = 1625 557

b Alpha = .05

Regarding the effects of school type, it was found that for all knowledge factors, the students of Catholic and Protestant schools were better informed, while the students of national and Islamic schools were among the least-informed. The public school students scored intermediate on all three knowledge factors. Table 3.21 compares students of different school types on the knowledge about male fertility and beliefs related to intercourse.

A significant effect on school semester (from semester 1 to semester 5) was also found, but there was no clear pattern. For example, the first semester students were the best informed about female fertility and physical appearance, but they were among the least informed about male fertility, intercourse, and diseases. Such inconsistencies were also found among the second and third year students (semester 3 to semester 5). These results might indicate that senior high students of *any* schooling level have similar knowledge about sexuality. Since, in general the level of knowledge was low, hence, generally the students in all school semesters had low knowledge about sexuality.

Table 3.21: Comparison between School types in the Knowledge about Male Fertility and Beliefs related to Intercourse

Knowledge about Male Fertility and Beliefs related to Intercourse

Tukey HSD^{a,b}

SCHOOL TYPE	N	Subset		
		1	2	3
private: national	1809	6.49		
private: islamic	2445	6.53		
public	3718		6.71	
private: protestant	979			6.82
private: catholic	1476			6.88
Sig.		.658	1.000	.281

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = .898.

a. Uses Harmonic Mean Sample Size = 1706.654.

b. Alpha = .05.

There were several significant interactions among the four independent variables, particularly on the ‘female fertility and physical appearance’ factor and the ‘male fertility and intercourse’ factor. Figures 3.4 and 3.5 illustrate two of these interactions with the t the scores factor 1 and factor 2.

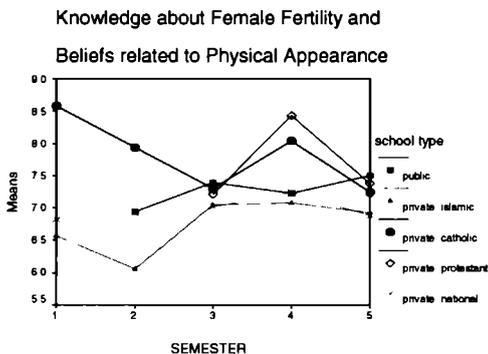


Figure 3.4: Knowledge about Female Fertility and Beliefs related to Physical Appearance according to School type and Semester

Figure 3.4 shows that the students in Islamic and national schools and in public schools across all semesters had relatively low scores on the knowledge factor about female fertility and beliefs about physical appearance. It is salient in the figure that the students of semester 1, 2, and 4 of Catholic schools and the students of semester 4 of Protestant schools had higher scores on this dimension compared to the other students. In contrast, the second semester students in Islamic schools had the lowest scores on this factor.

Figure 3.5 illustrates an interaction between the knowledge factor about male fertility and beliefs related to intercourse. Students of all school types in the Pemalang Regency and

Pekalongan City scored lower than students in the other regions. The students of Catholic, Islamic, and public schools in Semarang Regency scored higher than the other school types. Relatively high scores were also found with students of Catholic schools in Semarang City, Kudus Regency, and Kebumen Regency, the students of Protestant schools in Semarang City, and the students of public schools in Kebumen Regency.

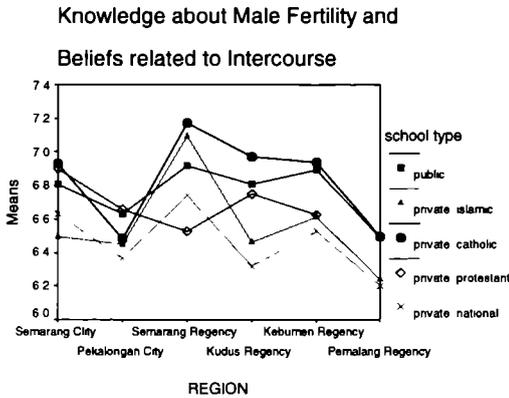


Figure 3.5: Knowledge about Male Fertility and Beliefs related to Intercourse according to Region and School Type

As adolescents grow older, they might get information about sexual matters from several sources, such as peers, adults, and mass media. Assuming that the information is objectively correct, older adolescents should be better informed than younger ones. On the other hand, younger adolescents may have been living in a more open atmosphere in terms of sexuality, where talking about sexual matters is not as taboo as in the previous four or five years. Younger adolescents might have more chances to learn about sexuality from credible sources such as parents and related institutions. If this is the case, then younger adolescents would have more correct knowledge about sexuality than the older ones. To test these assumptions, correlation analyses were done between age and the three aspects of knowledge about sexual matters. Analyses were done separately for males and females, and the results are presented in Table 3.22.

Table 3.22: The correlations between age and three aspects of knowledge about sexual matters

Correlations between Age and the aspects of knowledge:	Males (N=4660)	Females (N=5564)
Knowledge about female sexuality and beliefs associated with physical appearance	-.11**	-.11**
Knowledge about male sexuality and beliefs associated with intercourse	-.05**	.02
Belief associated with diseases	.01	.00

All correlations are two-tailed.

*) significant at level .05; **) significant at level .01

As seen in the table, there were no or only very low correlations between age and knowledge about sexuality in both genders. The significant correlations were all negative, meaning that older adolescents are less likely to be well-informed about sexuality, especially related to female sexuality and beliefs about physical appearance.

3.4. Problems with Sexual Development

The students participating in this study are senior high school students between the ages of 14 to 20 years, with a Mean age of 16.82 years. Although most, if not all, of them have passed the pubertal period by several years, they might still have problems related to their sexual development (e.g. Steinberg, 2002; Archibald et al., 2003). To test this assumption, five questions were given to each gender. Questions for male respondents included nocturnal emission, larynx development, voice change, pubic hair, and other body hair. The five items for females were menstruation, breasts, pubic hair, other body hair, and body development. The instrument used a 6-point response scale, ranging from “Almost Never” (1) to “Very Often” (6). High scores mean more frequent experiences with problems related to sexual development.

Table 3.23 summarizes the descriptive analysis. It can be seen that that males reported more frequent difficulties related to their sexual development than did females. As some problem areas of both gender groups are obviously different, comparison between the groups should be done cautiously. The problems which are applicable for both males and females are pubic and body hair development. “Body hair” in this study includes moustache, beard, hairs in the armpit and other parts of the body. A *t*-test comparison of the genders on the means of all problem domains showed that males reported more frequent problems with their sexual development ($t = 24.47$; $p < 0.01$). The effect size of the sexual problems experienced by male and female participants was calculated with Hedge’s *g*. According to Hedges (1982) the effect size can be measured by calculating the Means difference divided by the pooled Standard Deviation. The effect size is $g = 0.54$, which can be interpreted as moderate.

Table 3.23: Respondents’ experiences in having difficulties/problems related to sexual development

Descriptive Statistics of Frequency in Having Difficulties/Problems related to Psychosexual Development

	N	Minimum	Maximum	Mean	Std Deviation
M Nocturnal emission	4842	1	6	3.46	1.289
M Larynx development	4813	1	6	3.78	1.396
M Voice change	4852	1	6	4.27	1.354
M Pubes development	4821	1	6	4.46	1.362
M Other hair development	4837	1	6	4.10	1.503
F Menstruation	5724	1	6	3.89	1.709
F Breast development	5716	1	6	3.32	1.512
F Pubes development	5688	1	6	3.15	1.522
F Other hair development	5671	1	6	3.10	1.585
F Body development	5691	1	6	3.56	1.592
Male Problems (Total)	4717	5	30	20.08	5.106
Female Problems (Total)	5624	5	30	17.03	6.007

Pearson correlation analysis revealed significant inter-correlations of problems, both in males and females. The more frequently a student had problems in one area of psychosexual developments the more likely he or she is to have problems in other areas. For male respondents the Pearson correlation coefficients ranged from 0.29 to 0.58. For female participants the correlation coefficients ranged from 0.35 to 0.64. All the correlations were

significant at 0.001. The reliability of the occurrence of psychosexual problems among males was Alpha=0.79, and among females was Alpha=0.81. Correlation analyses also showed significant positive correlations between having psychosexual problems and age, although these are very low, with correlation coefficients less than 0.10.

The relation between the psychosexual difficulties and the socio-demographic variables was also examined. A MANOVA on all problem domains as dependent variables and Region (6 levels), School type (5 levels), and Semester (5 levels) as independent variables was done separately for male and female participants. Analysis on males' data revealed significant effects on all the variables and their interactions, except the interaction between region and semester. The partial Eta squared (estimated effect size) are very low, ranging from 0.004 to 0.009 for males and from 0.001 to 0.005. Two figures, illustrate problems with nocturnal emission among male students from five school types in six regions (Figure 3.6), and problems with body hair development in relation to school type and school semester (Figure 3.7).

Figure 3.6 shows that male students from different types of schools in Kudus Regency were not much different from each other in terms of having difficulties or problems related to nocturnal emission. The most striking deviation can be seen in Protestant school students in Pekalongan City who reported less frequent psychosexual difficulties than other school types in the region, as well as all school types other regions. Islamic, Catholic, and national school students in Pemalang Regency reported more frequent problems related to nocturnal emission. The same situation was found with Islamic and Protestant school students in Semarang regency and Islamic school students in the Kebumen Regency. They reported more frequent problems associated with nocturnal emission.

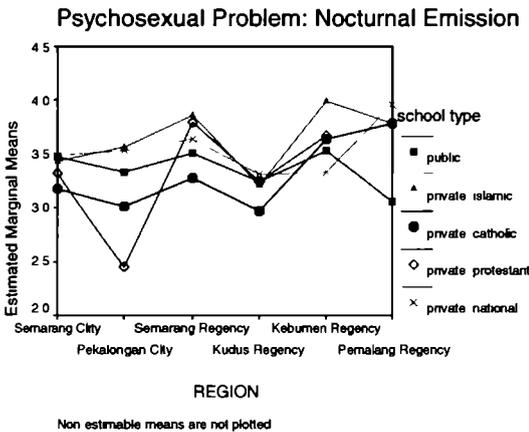


Figure 3.6: Frequency in having Problems related to Nocturnal Emission among male students according to Region and School type

Figure 3.7 indicates an increasing tendency in having problems with body hair development among male participants across school semester. Senior students report more frequent psychosexual problems regarding the development of face hair, armpit hair, and hair on the other parts of the body. Exceptions are first semester students in Islamic school who reported more frequent difficulties and fifth semester students in public schools who reported less frequent difficulties related to body hair development.

Psychosexual Problems: Body Hairs

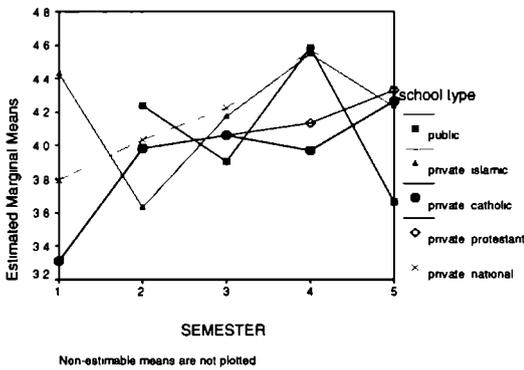


Figure 3.7: Frequency in having Problems related to Body hair development among male students according to School semester and School type

There were also differences in psychosexual problems among female students from different regions, different school types and school semesters. There were significant differences in reported problems across school type. There were also significant interactions between region, school type, and semester. Figure 3.8 illustrates the interaction effect between Region and School types with respect to problems related to Menstruation, and Figure 3.9 presents the interaction effect of Semester and School type with respect to breast development.

Psychosexual Problems: Menstruation

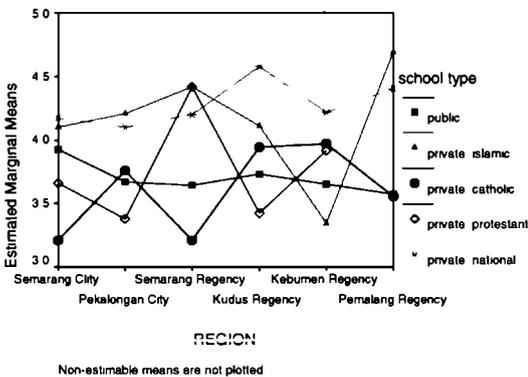


Figure 3.8: Frequency in Having Difficulties/Problems related to Menstruation according to Region and School types

Figure 3.8 shows that public and national school students reported similar frequency of psychosexual problems relating to menstruation in all regions. However, national school students reported more frequent problems associated with menstruation than the public school students. There was greater regional differences with the other school types. Islamic school students in the Kebumen region reported fewer problems than Islamic school students in other regions. More frequent difficulties were reported by protestant school students in

Pekalongan City. Relatively less frequent problems in menstruation were reported by students of catholic school students in Semarang City and Semarang Regency, protestant school students in Pekalongan City and Kudus Regency.

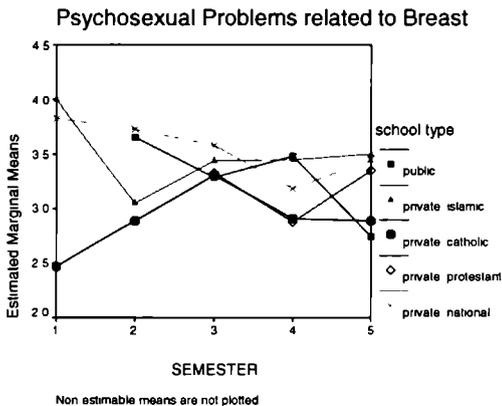


Figure 3.9: Frequency in having Problems related to Breast development among female students according to School semester and School type

Figure 3.9 shows that there were more frequent problems with breast development reported by first semester students in Islamic and national schools, and second semester students of public schools and national schools. In contrast, first semester catholic school students reported less frequent problems associated with breast development. Third semester students from all types of schools reported similar level of difficulties, but the scores were rather high compared to the report of students in other semesters. Public school students showed a declining tendency in having psychosexual difficulties or problems across semesters. A slight declining tendency was also found with national school students, although the frequency of problem occurrences was higher than that of public school students.

4. Summary and Discussion

The objective of the research was to describe a variety of sexual situations of senior high school students in Central Java. The sexual situations consisted of experiences with intimate or dating relationships, sex related behaviours, knowledge about sexual matters, and difficulties or problems related to sexual development. The sources of information about the sexual situations were senior high school students themselves, senior high school teachers, parents who had an adolescent child or children, and young adults. The main findings will now be discussed.

4.1. Romantic relationships among adolescents from several points of view

This study found that the majority of senior high school students are or have been involved in dating or romantic relationships (*pacaran*). As mentioned earlier, the status of such relationships has been only assumed by many researchers in Indonesia (Utomo, 2003; Setyonaluri et al., 2005). From a developmental point of view, being involved in dating relationship serves many functions in adolescent development, especially psychosocial development (e.g. Collins, 2003; Steinberg, 2002; Furman et al., 1999; Shulman & Collins,

1997; Bouchey & Furman, 2003; Paul & White, 1990). Adolescent romantic relationships are related to changes in interpersonal relationships generally, from same sex friends to opposite sex friends.

It is remarkable that in this study the dating experience had no correlation or only a very low correlation with age. According to Collins (2003), who referred to a national study in the United States, the number of adolescents aged 12-18 years having a boyfriend or a girlfriend increased with age. A study done by Cooksey et al. (2002) found that there were more respondents aged 15-16 years than 13-14 years who reported weekly and steady dating. Connolly et al. (2004), who did a study on early adolescents aged 9.31-14.84 years (grade 5 to 8), also found a higher percentage of reported dating activities among students in higher grades, but the difference between grades was not significant. The results of the Central Java study are similar, except that the participants were older, aged between 14-20 years old. The perceptions of friends' dating and related experience in Central Java was also not age-graded.

Involvement in intercourse among senior high school students was found in this study. About 6% of out-school students (13 of 223 respondents) reported that they have been involved in intercourse. The percentage of males reporting intercourse is more than ten times that of their female counterparts. This result is different from the results of previous studies conducted in Indonesia. Utomo (2003) reported that, in her study in Jakarta in 1995, 1.4% of the respondents aged 15-19 years had sexual intercourse. Setyonaluri et al. (2005), who also did research in Jakarta, found that 2.3% of 15-19 years old respondents reported having had an intercourse experience. Another difference between present findings and those of Utomo's study is that there were no differences between Islamic and non-Islamic respondents, while in Utomo's study (2003) more non-Islamic respondents reported intercourse experience.

It is surprising that more senior high school students in *Central Java* reported experience with intercourse compared to adolescents of almost the same age in *Jakarta*, a metropolitan city which is the capital of Indonesia. The difference may be due to the time of the research and a methodological difference. Utomo's study was conducted in 1995, while the data collection of Central Java study was done in 2003. There have been many social changes during the intervening years. Yet Setyonaluri et al.'s (2005) research was also conducted in Jakarta in 2005, but also found a lower percentage of adolescents reporting involvement in intercourse compared to the participants of the Central Java study. The difference in the method of data collection may have influenced the results. Setyonaluri and colleagues used a structured interview in collecting the data. In addition, the samples were selected on a household basis. Hence it is possible that the respondents were more inclined to give socially desirable answers, because they were not anonymous. In the Central Java study the respondents were recruited individually and a questionnaire was used to collect the data. The completed questionnaire was returned in a sealed envelope. It was assumed that the greater anonymity of the method would decrease the social desirability effect.

Self-reported involvement in pregnancy (being pregnant or making other pregnant) was very low, reported by only one out of 223 out-school students. Other respondents (in-school students, teachers, parents, and young adults) reported knowing students in their area who had become pregnant or had made someone else pregnant in the previous year: 58.3% of respondents reported 1-3 students pregnant, 5% reported 4-6 students pregnant, 0.8% knew 7-9 students pregnant, and 3.1% knew 10 or more students pregnant. The proportion of reported male students making other(s) pregnant is similar to that of female students pregnant, but the percentage of reported male cases is smaller than that of females. This may be due to the fact that pregnancy cases among females are much more visible than involvement in pregnancy among males. The reports on small numbers of student involvement in

pregnancy, especially the self-reported involvement, are understandable. One reason of these low reported cases is that students involving in pregnancy, especially the pregnant girls, are expelled from school because of the pregnancy. Hence the pregnancy cases among students may not easily come to respondents' attention. Also, pregnancy cases are usually kept secret by the involved persons and their family, so the cases are usually only known by physically or socially close persons, including friends. There is also a possibility, however, that pregnancy cases among adolescents in Central Java is in fact low.

Analyses also revealed that adolescent sexual activities are correlated with each other both for self-reported activities and perception about friends' behaviours. Examples are consumption of porn material and dyadic sexual activities. However, the analyses also found a difference in structure between self-reported activities and reports about peers' behaviours. Factor analyses indicated that, in self-reported activities, the consequences of sexual behaviours are pooled into one factor distinct from the behaviours themselves. In contrast, with the perception about friends' activities, the consequences are pooled into the same factor as the behaviours. This might indicate that the adolescents use a double standard when assigning the causes to pregnancy, disease infection, and abortion. When other persons (in this case their friends) are involved in the consequences, the adolescent attributed the consequences to *those persons* and their sexual behaviours. On the other hand, when the adolescents themselves are involved, they did not attribute the consequences *to their own behaviours*. This way of thinking reflects the attribution theory on actor-observer effect described in attribution theory (e.g. Brehm, Kassin, & Fein, 2002, Moskowitz, 2005; Foersterling, 2001).

Non-adolescent participants of this study (teachers, parents, and young adults) were asked about their knowledge of senior high school student behaviour in their region, particularly regarding student dating experience, students being pregnant, and students making other(s) pregnant. The results show that the groups of respondents differed in their perceptions, and also differed with the perceptions of the students. Compared to the students' reports, teachers and parents gave a lower estimation of students' experiences, while estimations of young adults tend to be higher than those of students. The high estimation by young adults (21-25 years old) may be influenced by their own context, in which the probability of dating relationships and pregnancy involvement among their peers is higher than among adolescents (14-20 years old). A low estimation by teachers and parents, on the other hand, may be due to the distance of their own world from the adolescent world, although they may think that dating relationships are common among adolescents (Setyonaluri et al., 2005). Nevertheless, there is a possibility that teachers and parents feel uncomfortable when thinking that many young people are involved in pre-marital sex or pregnancy because such behaviour goes against religious and societal morality. Hence they tend (unintentionally) to underreport "unwanted" adolescent behaviours so as to make themselves feel less uncomfortable. This explanation reflects Festinger's cognitive dissonance theory (Brehm, et al., 2002; Moskowitz, 2005).

4.2. Blended knowledge and beliefs

This study tested students' knowledge about 13 sexual issues, including basic knowledge about human sexuality (male and female reproductive processes, HIV transmission, and condom) and myths about sexuality (e.g. body hair and sexual drives, body posture and virginity).

Similar to the results of previous studies (Setyonaluri et al., 2005; Winarno, 2003a) this study also found that adolescents have relatively little knowledge about sexuality. Incorrect answers were given by more than 50% students on items about HIV transmission through kissing, male fertility, and female fertility. More than 50% of the students also

believed that not following sexual drives can make a person become crazy, that body hair is an indication of high sexual drive, that size of sex organ ensures sexual satisfaction, and that body posture indicates a woman's virginity. Those beliefs may lead adolescents to incorrect judgements and worries. For example, an adolescent who has "undersized" penis may have psychological problems (e.g. inferiority feelings) because he thinks that he will not be able to satisfy his future wife. This belief may lead to unnecessary behaviours, such as penis enhancement (e.g. Hull & Budiharsana, 2001).

Some items of this study can be compared to similar items of other studies. HIV transmission through kissing was also asked to the respondents in Jakarta by Setyonaluri et al. (2005). They found that 7.1% of 15-19 years old respondents incorrectly answered that HIV can be transmitted through kissing. In this study, 52% students (aged 14-20 years old) believed that kissing transmits HIV. Another item is about "having sex only once". Setyonaluri et al. found that 58.7% of the senior high school respondents believed that "having sex only once" may result in pregnancy. In the present study, 79% respondents answered that "having sex only once" may result in pregnancy. These findings indicate that many young people in Indonesia, whether they live in metropolitan, small cities, or rural areas, have relatively low knowledge about sexuality (cf. Adioetomo et al., 1999), although the details of their knowledge may differ from one region to another.

Even though the knowledge items covered both basic knowledge and beliefs (myths) about sexuality, the results indicate that knowledge and beliefs are organized in a more complex manner. Three dimensions were found in the questions testing the knowledge: (a) knowledge about female sexuality and beliefs associated with physical appearance, (b) knowledge about male sexuality and beliefs associated with intercourse, and (c) beliefs related to diseases. The results imply that knowledge and beliefs about sexuality are not just correlated with each other but they are blended. Two reasons can be offered for this speculation. The first is that incorrect beliefs come from incorrect knowledge or information. For example, belief that "having sex only once" will not bring about pregnancy must be related to the state of knowledge about male and female fertility. The second argument is derived from statistical analysis. Questions on male and female fertility, for example, which were originally included in the basic knowledge dimension, are statistically distributed across two factors. Both factors consist of a mix of knowledge and beliefs items.

4.3. Psychosexual development in senior high school students: a relevant issue

Questions about difficulties or problems with psychosexual development were included in this study because they could possibly be a relevant issue for Indonesian senior high school students. Some questions were the same for male and female participants, while other questions were gender specific.

The results showed that there are many students (on average 40% of males and 27% of females) who reported having very frequent (scores 5 and 6) problems with psychosexual development, especially to items about voice change, pubic hair, other body hair (among males), menstruation, and body development (among females). It is to some extent surprising that the participants have such psychosexual problems at those ages (14-20 years old, with a Mean age of 16.8 years). However, psychosexual difficulties may occur among adolescents (Steinberg, 2002; Archibald et al., 2003), whether it is related to ideal self (especially related to body image), early or late maturation, or because of others' reactions.

It was also found that there were inter-correlations among psychosexual problems for both males and females. The reliability coefficients were also moderately high (0.79 and 0.81 for males and females, respectively). These results may indicate that psychosexual problems among adolescents in Central Java are not isolated, but need to be dealt with using

an integrated approach that includes biological, psychological, and social aspects of adolescent development.

The problems may be related to adolescent awareness of bodily changes and how these developments are important to them. Zani (1991) examined 15-18 year old adolescents' patterns in discovering their sexuality. The results showed that both males and females identified physical changes as the most important development associated with sexuality. For males, the most relevant physical changes were physical maturity, build, genital organ, and beard and body hair. Female participants also think that physical maturity is the most relevant to their development, followed by breast development, menstruation, and beauty.

The results also show that, in general, males reported more frequent problems with psychosexual development than did females. In two items which are applicable for both gender (pubic hair and other body hair) males also reported more frequent problems. Zani's (1991) study found that males placed beard and body hair development as the most relevant changes in their sexuality. It is important to note, however, that Zani did the research in Italy, where many males have more body hair as compared to Indonesian males. In the Central Java study it is not clear whether problems related to pubic and other hair concerns too much or too little hair.

This result is also surprising because, on one hand, in many situations females seem to be more concerned about their sexual and body development. On the other hand, males are usually more open about these matters with their peers. However, the openness may bring about an inverse effect, i.e. uneasy feelings that they are different from their peers or from perceived social expectations. The problems with sexuality development among male adolescents may be related to their beliefs and masculine culture (cf. Hull & Budiharsana, 2001). For example, adolescent males have psychological problems related to body hair because they may believe that body hair is related to sexual drives. Moreover, body hair is often regarded as a sign of masculinity. Therefore, an adolescent may be shy if he has no or little body hair because he feels that he is not really a "man". Another young male may be affected by having too much body hair because he is then perceived as having a high sexual drive.

4.4. Demographic conditions do matter

The survey included some socio-demographic variables. Those variables are gender, religion, school type, and regions associated with maternal mortality ratio (MMR). In many analyses it was found out that these demographic variables were related to differences in knowledge, perception, and reported behaviours or situations. In terms of dating experience, more females reported that they have a partner (*pacar*). In other cases males reported more frequent involvement in sex-related activities, such as watching porn pictures or movies and masturbation. Males more frequently had problems with their psychosexual development.

Differences were also found among religious affiliation groups and school types. More Islamic students reported having been in dating relationships (*pacaran*). More students from Islamic schools and public schools also reported being involved in *pacaran*. Together with students from national schools, students from Islamic school had a lower level of knowledge about sexuality. Islamic respondents and Buddhist respondents were also less informed about sexuality. With regard to psychosexual problems, more students from national and Islamic schools reported having such problems more frequently. Islamic participants across the regions and schools also had more frequent psychosexual problems.

Participants in different regions are also significantly different in their knowledge about sexuality. Students from Pematang regency, together with students from Kebumen regency and Pekalongan city had lower scores on knowledge. In the self-reported dating

experiences, there were also differences between regions, but the correlation of dating experiences and ranked maternal mortality ratio (MMR) was very low ($\rho = -0.08$)

The student participants of this study are aged 14-20 years old. Some analyses revealed that age has no or very low correlations with other variables, such as dating relationships, reported behaviours, knowledge, and problems with psychosexual development. The absence of or low correlations may be due to the limited range of the participant age. Moreover, the participants are at the same level of education, i.e. senior high school, although they are in different school semesters.

Some published research has reported socio-demographic effects on some variables related to sexuality (e.g. Utomo, 2003, Setyonaluri et al., 2005, Cooksey et al., 2002, Arbeau, Galambos, & Jansson, 2007). Utomo (2003) and Setyonaluri et al. (2005), for example, reported that more males than females had sexual experiences. Setyonaluri and colleagues also reported that males had more knowledge about sexual matters. Winarno (2003a), however, found no difference between males and females in knowledge about sexual matters. From the findings it is clear that gender influences differences in adolescent sexual situations. Regarding gender differences, Santrock (2001) noted that (a) the differences are average, not between all males versus all females, (b) possibility of overlap between sexes, and (c) the differences are primary due to other factors, such as biological factors, socio-cultural factors, or both.

Some of the socio-cultural factors which are covered in this Central Java sexuality study are religion, school type, and region. Regarding the effect of religious factors, Utomo (2003) reported that more non-Islamic young people were engaged in sexual activities, ranging from holding hands to intercourse. This study found no difference between Islamic and non-Islamic out-school respondents in non-dyadic as well as dyadic sexual activities. However, in-school student reports showed that more Islamic students had been in dating relationships. More students in Islamic schools and national schools also reported having been in relationships. There is also a tendency that students of both school types (Islamic and national schools) had a lower knowledge about sexual matters and more frequent problems related to psychosexual development. These results may emphasize what has been noted by Santrock (2001) about interaction between biological and socio-cultural factors in differences among adolescents.

4.5 Same-sex attraction

Included in the questionnaire for out-school students was a question about same sex attraction. The question was not limited to personal or sexual attraction. Therefore the participants might have given answers based on their perceptions of others. The question was formulated ambiguously to minimize a social desirability effect. Homosexuality is not accepted by many, if not most, societal groups in Indonesia (cf. Winarno, 2003b), and respondents might not have answered truthfully to a too-direct question where the words "homosexual" or "sexual attraction" were used. According to McConaghy (1987), young people "are very reluctant to reveal deviant or socially disapproved sexual feelings or acts". Therefore, especially in this Indonesian study, a question about same-sex attraction which does not clearly refer to homosexuality was considered as reasonable and wise.

The result indicates that almost two percent of the respondents reported that they had had at least once felt attracted to same sex person(s). The participants also perceived that at least some of their friends had been attracted to the same sex. Feeling of sexual attraction was used by McConaghy (1987) in identifying sexual orientation. Friedman et al. (2004) found that according to young people (aged 16-22) the most important thing in identifying sexual orientation is sexual attraction, including cognitive level of attraction. The term "sexual attraction" was used by Friedman and colleagues although the examples they

presented had no explicit sexual content. Using the findings of Friedman et al. (2004) as a reference, the results of the Central Java study *may* (because the question is ambiguous) indicate that homosexual attraction does exist among adolescents in Central Java. Using McConaghy (1987) point of view, which supports Kinsey's concept that sexual orientation is a continuum, there may be homosexual adolescents in Central Java, although the percentage might be different from that of in other cultures.

4.6. *Strengths and weaknesses of this study*

The Central Java Sexuality Study aimed to identify adolescent needs for sexuality education. As a part of more comprehensive project, this chapter shares some aspects of methodology with other parts of the project.

4.6.1. *Strengths*

Although the focus of this study is adolescents, the data sources were not only adolescents. The *participants* are adolescents (senior high school students), teachers, parents, and young adults. This is one of the strong points of this study. The variation of data sources was expected to give more comprehensive and more convincing information about adolescent sexual situations. In addition, cross-checking between groups of respondents is possible. In fact, in many cases the various groups of participants reported having had a different perception about the situations, although the differences were not very large. Examples are comparisons between groups of participants in their perception about students' romantic experiences, and cases of pregnancy among senior high school students. The selection of several data sources is also related to the fact that there are many involved parties in guiding adolescent lives, including their sexuality. These include teachers, parents, and the adolescents themselves. The involvement of all involved parties in thinking about and providing information about the adolescent sexual situation may increase awareness of the needs for education to deal with adolescent sexuality.

The second strong point of the study is that the student participants were recruited *in school as well as out of school*. These different settings of data collection make it possible to gather different types of data. Because in-school data collection was conducted during school hours, the researcher could collect a more data over a relatively longer period of time in controlled situations. In the out-school context it was possible to ask sensitive questions, e.g. about sex-related activities, in a situation which was relatively free from social pressure.

The third strong point is related to the *wide coverage* of the participants. The participants were selected from several regions, all school types, and other available socio-demographic backgrounds. The regions ranged from city or regency with very a low maternal mortality ratio (MMR) to regions with a very high MMR. All types of senior high school were represented in this study, including public schools, religion-related private schools (Islamic, Catholic, Protestant), and religion-unrelated private schools (national schools). The schools were from "urban" (the centre of city/regency), "sub-urban" (not far from the city/regency centre), and "rural" (a distance from the city/regency centre) areas. From all regions and schools selected, participants (including students) from various socio-cultural background, including religious background, were "automatically" recruited. Other backgrounds which were not explicitly assessed in this study (e.g. individual, racial, socio-economic) can be assumed to be represented in this study.

The fourth strong point is also related to the coverage. A *large number* of respondents were recruited for this study. They were 10,608 in-school students, 224 out-school students, 591 teachers, 382 parents, and 341 young adults. With regards to the large number of subjects, however, we should be careful in interpreting the results of statistical analyses. Many results were statistically significant although the correlations or differences

were numerically small. Nevertheless, the effect of a large number of participants on results of statistical analyses does not weaken the advantage of recruiting a large number of respondents in this study. On the contrary, if this study finds no correlations or differences between variables, then, there is no relation or difference between those variables in the population.

4.6.2. Weaknesses

Along with the strengths of the study, there are also some weaknesses. The first limitation is related to the question about students dating experiences. Beside students' self-reported experiences, there were questions about the respondent *perceptions* ("to their knowledge") about dating experiences among adolescents. There are many questions about perception, i.e. perception about the number of students pregnant/making pregnant or infected with sexually transmitted infections. The answers to such questions do not necessarily reflect the real prevalence of such situations. An extreme example would be where there is only one pregnant student and all the teachers know about it. There would then be 100% of teachers reporting "at least one student pregnant". Although such a question does not give a veridical answer about prevalence of pregnancies among students, the question is still meaningful, especially when comparing the perceptions of various groups of participants about the sexual situations of Central Java adolescents.

In this survey, the adolescent participants were given questions both *about themselves and about their peers*. This method was selected to encourage respondents to give more factual answers especially about socially undesirable behaviours or situations. Examples of socially undesirable facts are sex-related behaviours and situations, including self-experiences in intercourse and pregnancy. However, in the arrangement of instruments, the self-report questions preceded the questions about perceptions of friends. Therefore, the intention to decrease social desirability effects *through this method* may not have been successful. Nevertheless, some respondents might have glimpsed all parts of the questionnaire prior to answering the questions, so they knew that there were questions about themselves and about their friends. Also, before each phase of data collection, anonymity and confidentiality were emphasised to the participants. This may have encouraged participants to provide answers more in accordance with the reality.

The third weakness is related to questions about *knowledge and beliefs*. This aspect consists of only 13 items about basic knowledge and beliefs about sexuality. This limited number of items may not accurately reflect the true degree of the respondents' knowledge. However, only a small number of knowledge items could be asked, considering the time limits imposed by the many other aspects covered by the research project.

It can also be considered a limitation that a 'most frequently asked question about sexuality' was not included among the knowledge items. In several seminars or discussions with senior high school students, the researcher often received questions about *masturbation*, especially from male students. If the topic of masturbation had been included could have added a useful perspective on adolescent knowledge about sexual matters. Masturbation, however, was not included because at the time of instrument construction the researcher thought that beliefs about masturbation were too sexist, meaning that beliefs related to masturbation were mostly related to males.

Finally, a weakness of the study is related to socio-demographic factors. In this research socio-demographic factors were simply incorporated into the definition of the sample groups. However, there is no further *elaboration* of the socio-demographic factors themselves. An example is religion, which only identifies the respondents' religious affiliation, and says nothing about their religiosity. The same is true about region. It was assumed that each region had specific socio-cultural characteristics. It was also assumed that

the participants were influenced by the socio-cultural condition of their region. Although the demographic variables were only used to put the respondents into groups, they nonetheless provide useful information about the sexual situation of Central Java adolescents.

References

- Adioetomo, S. M., et al. (1999). Need assessment for adolescent reproductive health program. *Unpublished research report*. Demographic Institute Faculty of Economics University of Indonesia in collaboration with National Family Planning Coordination Board, World Bank, and Surindo Utama.
- Arbeau, K. J., Galambos, N. L., & Jansson, S. M. (2007). Dating, sex, and substance abuse as correlates of adolescents' subjective experience of age. *Journal of Adolescence*, 30, 435-447.
- Archibald, A. B., Graber, J. A., & Brooks-Gunn, J. (2003). Pubertal processes and psychological growth in adolescence. In G. R. Adams & M. D. Berzonsky (Eds.). *Blackwell Handbook of Adolescence*. Malden: Blackwell Publishing.
- Aspy, C. B., et al. (2007). Parental communication and youth sexual behaviour. *Journal of Adolescence*, 30, 449-466.
- Bouchev, H. A. & Furman, W. (2003). Dating and romantic experiences in adolescence. In G. R. Adams & M. D. Berzonsky (Eds.). *Blackwell Handbook of Adolescence*. Malden: Blackwell Publishing.
- Brehm, S. S., Kassin, S. M. & Fein, S. (2002). *Social Psychology (5th Ed.)*. Boston: Houghton Mifflin Company.
- Brown, B. B. (1999). "You're going out with who?": Peer group influences on adolescent romantic relationships. In W. Furman et al. (Eds.), *The Development of Romantic Relationships in Adolescence* (pp 291-329). New York: Cambridge University Press.
- Collins, W. A. (2003). More than myth: The developmental significance of romantic relationships during adolescence. *Journal of Research on Adolescence*, 13, 1-24.
- Connolly, J., Craig, W., Goldberg, A., & Pepler, D. (2004). Mix-gender groups, dating, and romantic relationships in early adolescence. *Journal of Research on Adolescence*, 14, 185-207.
- Cooksey, E. C., Mott, F. L. & Neubauer, S. A. (2002). Friendships and early relationships: Links to sexual initiation among American adolescents born to young mothers. *Perspectives on Sexual and Reproductive Health*, 34, 118-126.
- Deptula, D. P., Henry, D. B., Shoeny, M. E. & Slavick, J. T. (2006). Adolescent sexual behaviour and attitudes: A costs and benefits approach. *Journal of Adolescent Health*, 38, 35-43.

- Duemmler S. L. & Kobak, R. (2001). The development of commitment and attachment in dating relationships: attachment security as relationship construct. *Journal of Adolescence*, 24, 401-415.
- Forste, R & Haas, D. W. (2002). The transition of adolescent males to first sexual intercourse: Anticipated or delayed?. *Perspectives on Sexual and Reproductive Health*, 34, 184-190.
- Foerterling, F. (2001). *Attribution: An introduction to theories, research, and applications*. Hove: Psychology Press Ltd.
- Friedman, M. S., et al. (2004). Adolescents define sexual orientation and suggest ways to measure it. *Journal of Adolescence*, 27, 303-317.
- Furman, W., Brown, B. B., & Feiring, C. (Eds). (1999). *The Development of Romantic Relationships in Adolescence*. New York: Cambridge University Press.
- Gebhardt W. A., Kuyper, L., & Dusseldorp, E. (2006). Condom use at first intercourse with a new partner in female adolescents and young adults: The role of cognitive planning and motives for having sex. *Archives of Sexual Behavior*, 35, 217-223.
- Goldstein, S. E. & Tisak, M. S. (2004). Adolescents' outcome expectancies about relational aggression with acquaintanceships, friendships, and dating relationships. *Journal of Adolescence*, 27, pp 283-302.
- Hedges, L. V. (1982). Estimation of effect size from a series of independent experiments. *Psychological Bulletin*, 92, 490-499.
- Hull, T. H. & Budiharsana, M. (2001). Male circumcision and penis enhancement in Southeast Asia: Matters of pain and pleasure. *Reproductive Health Matters*, 9, 60-67.
- Kaestle, C. E., Morisky, D. E., & Wiley, D. J. (2002). Sexual intercourse and the age difference between adolescent females and their romantic partners. *Perspectives on Sexual and Reproductive Health*, 34, 304-309.
- Kaltiala-Heino, R., Kosunen, E., & Rimpela, M. (2003). Pubertal timing, sexual behaviour and self-reported depression in middle adolescence. *Journal of Adolescence*, 26, 531-545.
- MacLean, R. (2004). Teenagers who think sex is important may wait less time with new partners. *Perspectives on Sexual and Reproductive Health*, 36, 172-173.
- Masters, W. H., Johnson, V. E., & Kolodny, R. C. (1995). *Human Sexuality (5th ed)*. New York: HarperCollinsCollegePublishers.
- McConaghy, N. (1987). Heterosexuality/homosexuality: Dichotomy or continuum. *Archives of Sexual Behaviours*, 16, 411-424.

- Miller, K. S., Forehand, R. & Kotchick, B. A. (1999). Adolescent sexual behaviour in two ethnic minority samples: The role of family variables. *Journal of Marriage and the Family*, 61, 85-98.
- Moskowitz, G. B. (2005). *Social Cognition: Understanding self and others*. New York: Guilford Press.
- Paul, E. L. & White, K. M. (1990). The development of intimate relationships in late adolescence. *Adolescence*, 25, 375-400.
- Santrock, J. W. (2001). *Adolescence* (8th ed). New York: McGraw-Hill.
- Schwartz, I. M. (1999). Sexual activity prior to coital initiation: A comparison between males and females. *Archives of Sexual Behavior*, 28, 63-69.
- Setyonaluri, D. H., Kusumaryani, M. S. W., Antarwati, E., Tobing, H. M., & Ahsa, A. (2005). Laporan hasil temuan survei pemahaman kesehatan reproduksi dan perkawinan usia dini. Kerjasama Badan Koordinasi Keluarga Berencana Pemerintah Propinsi Daerah Khusus Ibukota Jakarta dengan Lembaga Demografi Fakultas Ekonomi Universitas Indonesia (Reports of findings of the survey on reproductive health knowledge and early marriage. A joint cooperation between the Family Planning Coordination Board of the Jakarta City and the Demographic Institute, Faculty of Economics, University of Indonesia.). *Unpublished research report*.
- Shulman S., & Collins, W. A. (Eds.). (1997), *Romantic relationships in adolescence: developmental perspectives*. San Fransisco: Jossey-Bass
- Steinberg, L. (2002). *Adolescence*. (6th ed). New York: McGraw-Hill.
- Utomo, I. D. (2003). Adolescent reproductive health in Indonesia: Status, policies, programs, and issues. POLICY Project. www.policyproject.com/pubs/countryreports/ARH_Indonesia.pdf. Retrieved on October 6, 2006.
- Wight, D., Williamson, L., & Henderson, M. (2006). Parental influences on young people's sexual behaviour: A longitudinal analysis. *Journal of Adolescence*, 29, 473-494.
- Winarno, R. D. (2003a). Pengetahuan dan Pengalaman Remaja berkaitan dengan Perkembangan Psikoseksual Mereka (Adolescent knowledge and experiences related to their psychosexual development). *Seri Kajian Ilmiah*, 12, 27-36.
- Winarno, R. D. (2003b). Gay and Transvestites in Semarang: The Role of Perception of Self and Social Acceptance in the Lives of Homosexual People. *Proceeding of International Conference on Environment and Urban Management*. Semarang, 1-2 August 2003.
- Youn, G. (1996). Sexual activities and attitudes of adolescent Koreans. *Archives of Sexual Behavior*, 25, 629-643.
- Zani, B. (1991). Male and female patterns in the discovery of sexuality during adolescence. *Journal of Adolescence*, 14, 163-178.

Zimmer-Gembeck, M. J., Siebenbruner, J., & Collins, W. A. (2001). Diverse aspects of dating: associations with psychosocial functioning from early to middle adolescence. *Journal of Adolescence*, 24, 313-336.

**Indonesian Adolescent Sexuality and Romantic Relationships:
Exploratory Studies**

Chapter 4:

PACARAN: INDONESIAN ADOLESCENTS IN LOVE

Introduction

The study on *pacaran* (romantic or dating relationship) among adolescents in Indonesia is a part of the Central Java Sexuality Research Project (2002-2006). The project contains two main parts, i.e. a large-scale survey and a micro-scale study. The large survey is aimed mainly at getting an overview of how adolescents in Central Java deal with their sexuality and interpersonal, including romantic, relationships. The micro scale study is the *pacaran* study. The *pacaran* study is expected to provide a more detailed and informative overview on how adolescents deal with intimate interpersonal relationship and sex-related situations in a dyadic context. The two parts of the project will complement each other in such a way that they will be able to be used as a reference to define the problems and underlying needs for sexuality education for adolescents in Central Java.

Pacaran among adolescents is a common fixture of their daily lives. According to Collins (2003) romantic relationships are normal and salient in adolescence and their frequency increases with age. Romance among adolescents and their dating behaviours have been a focus of many studies. To mention some of the studies are Rosenthal, Burklow, Lewis, Succop, and Biro (1997), Furman, Brown, and Feiring (1999), Shulman and Collins (1997), Duemmler and Kobak (2001), Zimmer-Gembeck, Siebenbruner, and Collins (2001), Goldstein and Tisak (2004), Kaestle, Morisky, and Wiley (2002), Connolly, Craig, Goldberg, and Pepler (2004), and Cleveland (2003). Most of studies had male and female parties participating in the researches individually. Only a few studies recruited both male and female parties of dating couples as participants of the studies, such as Rostosky, Galliher, Welsh, and Kawaguchi (2000), Cleveland (2003), Duemmler and Kobak (2001), and Shulman, Tuval-Mashisch, Levran, and Anbar (2006).

These studies examine many psychological and behavioural aspects of dating relationships, such as commitment, coping, psychosocial functioning, sexual behaviours, relationships with friends, and relationships with parents. Those aspects are. Studies of existential aspects, such as how adolescents give meaning to a dating relationship, are rarely carried out. In a study on love and dating relationships among adolescents Montgomery and Sorell (1998) included an open-ended question about love. Although the question concerned love, the answers given by the participants also referred to romantic relationships. On the basis of a literature review, Paul and White (1990) concluded that adolescent dating relationships serve eight functions, namely recreation, socialisation, status achievement, courtship, sexual experimentation, companionship, intimacy, and identity formation and individuation. The question how adolescents perceive retrospectively the development of their relationships has only rarely been examined. A study conducted by Flora and Segrin (2000) is one example in which retrospective questions about the history and development of a relationship were asked.

There have been several studies on sexual behaviours of adolescents (e.g. Miller, Forehand, & Kotchick, 1999; Forste & Haas, 2002; Kaestle et al, 2002; Deptula, Henry, Shoeny, & Slavick, 2006; Wight, Williamson, & Henderson, 2006; MacLean, 2004; Gebhardt, Kuyper, & Dusseldorp, 2006). The sexual behaviours investigated were mostly (but not exclusively) sexual intercourse, age at first intercourse, cumulative number of sex partners, or protective action against pregnancy or diseases, in their relation to other variables. Some studies, especially those which were done in Indonesian context, also included sexual behaviours other than intercourse, such as kissing, hugging, and other non-coital behaviours (Utomo, 2003; Setyonaluri, Kusumaryani, Antarwati, Tobing, & Ahsa, 2005; also Kaltiala-Heino, Kosunen, & Rimpela, 2003; Schwartz, 1999; Youn, 1996). The

studies mostly focused on the existence of sexual behaviours and their correlates, and not on the patterns or structure of the behaviours.

Many studies found that sexual behaviours were related to age, gender, and the age difference between male and female parties (e.g. Cleveland, 2003; Kaestle et al., 2002; Bersamin, Walker, Fisher, & Grube, 2006). Older adolescents tend to report more experiences with sexual behaviours. Studies on sexual behaviours conducted in Indonesia also revealed that sexual behaviours increase with age (Setyonaluri et al., 2005; Utomo, 2003). Most research, including Indonesian studies, also find that males report more frequent pre-coital and coital sexual behaviours than females (e.g. Deptula et al., 2006; Schwartz, 1999; Youn, 1996). Zimmer-Gembeck and colleagues (2001), however, found no difference between genders in their dating behaviours. Sexual behaviours have been found to be correlated with parental communication and perceived agreement from peers (e.g. Miller et al, 1999; Wight et al., 2006; Bersamin et al., 2006). It has also been found that sexual behaviours increased with the development of a relationship, from first date, several dates, to steady date (McCabe & Collins, 1983).

Several feelings are associated with sexual behaviours. These feelings may precede or follow sexual behaviours. Rosenthal et al. (1997) found that feelings of love, romance, or attraction could be reasons for sexual intercourse. Curiosity and excitement can also lead to intercourse. Guggino and Ponzetti, Jr (1997) described several emotional reactions after adolescents engaged in the first coitus, including anxiety, guilt, pleasure, and romance. In a study which focused on feelings of regret about the sexual decision, Oswalt, Cameron, and Koob (2005) found that the most reported reason for regret was disagreement with their own morals and values. Katiala-Heino et al. (2003) found that sexual experiences were associated with self-reported depression.

While there have not been many studies which include feelings about dating relationships, there have been studies which measured quality and satisfaction of a dating relationship (Rosenthal et al., 1997; Rostosky et al., 2000; Flora & Segrin, 2000). Studies of the perceived future of a adolescent dating relationship are also rare. Rosenthal et al. (1997) found that sexually experienced girls predicted a longer lasting relationship than inexperienced girls. Rostosky et al. (2000) and Shulman et al. (2006) studied the longevity of adolescent romantic relationships. In longitudinal studies Rostosky and co-workers found that the longevity was influenced by sexual behaviours and the quality of a relationship, while Shulman and colleagues found that the development of the relationship (longevity) was affected by the way in which the partners managed conflict.

This study on *pacaran* among Indonesian adolescents was carried out using dyadic participants. The purpose for this was to get a more detailed and realistic description about intimate relationships among adolescents. The study focuses on three main research questions: (a) how adolescents in Central Java give meaning to *pacaran*, (b) how adolescents feel and act within their romantic relationship, and (c) how adolescents evaluate the future course of their present relationship. The Indonesian word “*pacaran*” is used in this chapter as a reminder of the Indonesian cultural context of the research, since many of the references used in this study were of studies conducted in different cultural background. The terms “dating relationship” and “romantic relationship” are used as a literal translation for the term “*pacaran*”. Those three terms are used interchangeably in this chapter.

Method

Participants

Sixty heterosexual dating couples in Semarang, the capital of the Province of Central Java, were recruited for an interview. As this study is part of a larger research project aimed at identifying the needs for sexuality education among senior high school students, at least

one partner within a couple had to be a senior high school student. Of 60 couples initially recruited, only 59 couples were eligible for analysis. One couple was eliminated because both partners were at the time of interview already university students. The participants' ages ranged from 14 to 25 years. Most of the respondents were recruited by the interviewers through acquaintances. Some of the participants were friends of the interviewers. Other respondents were approached when they were leaving school ground at the end of the school day.

Procedure

A structured interview was conducted by 24 trained assistants. They were all female psychology students of Soegijapranata Catholic University, Semarang, in at least their fifth semester. It was assumed that female interviewers would be more acceptable to both male and female respondents, with the result that the respondents would be more open with the interviewers. In most cases, an appointment was set up for interview at the first contact. Some participants were interviewed on the spot. The interview was conducted face-to-face. The male and female of each couple were interviewed separately and were kept out of hearing distance during the interview. Many respondents were interviewed without the presence of his/her partner because they were interviewed at different places and different times. The same assistant interviewed both male and female parties. All the interviews were conducted over a period of three weeks in September and October 2005. During that time period there were no special religion-related festivities or occasions (e.g. Christmas, Ramadhan) which might have made the participants reluctant to talk about topics related to sex.

The interview was *not* an in-depth interview. The scenario was a structured interview with a detailed interview guide. The assistants would ask questions to the respondents and make notes based on the answers. In some cases, however, respondents preferred to fill out the questionnaire by themselves in the presence of the interviewer and ask her for clarification when needed. After the respondents finished answering the questionnaire, the assistants checked the answers and would ask for clarification regarding certain answers if necessary, or possibly ask further questions. For the pre-coded questions about sexual behaviours many respondents preferred to answer the questionnaire by themselves. This preference was probably due to the personal nature of the behaviours, e.g. sexual intercourse. On the first contact with the respondents the issue of confidentiality was discussed and guaranteed, and was again brought up and emphasized prior to the interview itself. At the end of interview the completed questionnaire was put into a self-sealing envelope, and was sealed in front of the respondent.

Measures

Several measures were used in this study. The measures can be categorized into four parts, namely the meanings, practices, predictions about *pacaran* (dating relationships), and the characteristics of the participants. The meanings include the definition and purpose of *pacaran*. The practices cover activities which were carried out during *pacaran*; these behaviours included sexual behaviours and feelings associated with the behaviours. Prediction concerned how a couple saw the progress of their current relationship, how they felt about it, and what they thought about its future. Characteristics of participants included the biographical data of the respondents and *pacaran*-related information.

Definition of pacaran. An open question asked for the definition of a dating relationship (*pacaran*). The participants were free to give verbal, pictorial, or a combination of verbal and pictorial answers. Participants were free to use metaphors or explanatory descriptions. However, due to the complexity and subjectivity of the meaning of pictures, it

was decided that only verbal answers would be analysed. As it was an open question, the answers showed a lot of variation, not only about the definition, but also about the function of a relationship and how to actually keep it going.

Purpose of pacaran. This topic included one question with five answer options, i.e. “Just for fun”, “Having a chatting partner”, “Having a partner for discussing school lessons”, “To be the same as other friends are”, and “Looking for a potential life partner”. Some participants, however, chose more than one option. Therefore, a “mixed purposes” response category was included in later data analysis.

Keeping in touch. The question concerned how the respondents kept in touch with his or her romantic partner. Eight activities were listed with responses coded on a 9-point frequency scale. The activities were private meetings, meeting together with friends, going out together, phone calls, sending short messages (SMS), sending mail/e-mail, internet chatting, and other non-specified activities. The response options ranged from “Never” (coded with 1) to “Several times a day” (coded with 9).

Sexual behaviours. Sexual behaviours refer to activities or behaviours the participants carried out when meeting with their romantic partner. One introductory question and a list of ten sexual behaviours were presented with six response alternatives, ranging from “Never” (coded 1) to “Always” (coded 6). The introductory question on how often dating partners did activities together without any physical contact. This introductory question was meant to decrease feelings of insecurity when it came time for participants to answer questions related to their privacy. The respondents were then asked to indicate the frequency with which they carried out each of the listed behaviours when meeting with his/her current dating partner. The sexual behaviours were holding hands (HH), kissing of the cheek or forehead (FK), hugging (HU), lip kissing (LK), kissing of the neck (KN), lip kissing with tongue (TK), rubbing sensitive parts of partner’s body (RB), petting (PT), mutual masturbation (MM), and intercourse (IC). The sequence of sexual behaviours was arranged according to the hypothesised frequency of each behaviour in the *pacaran* in Indonesia. The hypothesised sequence was decided upon based on informal discussions held with students and teachers of the Faculty of Psychology, Soegijapranata Catholic University Semarang.

Feelings accompanying sexual behaviours. Attached to the list of sexual behaviours were two columns for reporting the feelings they mostly had in association with each sexual behaviour. The first column was for reporting feelings they had *during* involvement in sexual behaviours, and the other was for feelings they had *the day after* engaging in the respective sexual behaviours. The questions about the feelings were open questions, and the responses were subsequently categorized and coded.

Course of relationship. A blank graph was presented to the participants. They were asked to draw a line representing the progress of their current dating relationship as a function of time from the beginning of the relationship until the time of interview. These graphs, i.e., the courses of the relationship were analysed in terms of slope, linearity, and the degree of similarity between partners.

Feelings about pacaran. An open question was asked about respondents’ feelings about their current dating relationship. The answers were content analysed and coded.

Predictions about the relationship. A question with four response options addressed how respondents predicted their current dating relationship would develop. The response options were “Going smoothly until marriage” (score 3), “With difficulties but will get married” (score 2), “Split up before marriage” (score 1), and “Don’t know” (score 0).

World without sexual attraction. The participants were asked to “imagine a world without sexual attraction” and asked to provide a short opinion about it. The answers were content analysed.

Biodata of the pacaran couples. In addition to the measures related to *pacaran*, there are several questions about respondents' socio-demographic backgrounds and experiences related to their dating relationships. These questions concerned age, religion, and status (junior high school student, senior high school students, university students, working, and other not specified status). These questions concerned the respondent himself/herself and his/her partner. Other questions concerned the duration of the current relationship, planned age of marriage, previous dating experiences, and the knowledge of parents and friends about the relationship and their reaction to the relationship.

Analyses

The data were analyzed both quantitatively and qualitatively. Prior to the quantitative analyses, answers to open-ended questions were coded. Some coding was categorical (e.g. on feelings of *pacaran*), and some was ordinal (e.g. on course of relationship). A variety of statistical analyses were carried out, including descriptive, correlational, and discriminant analyses, (M)ANOVAs. An exploratory factor analysis was also performed. Qualitative descriptions were also carried out in relation to the qualitative data.

Results

The characteristics of pacaran couples

The participants were young dating couples between 14 and 25 years old. The age means were 18.5 years and 16.8 years for males and females, respectively. Most of the males were about the same age as his partner or older. Only one male was seven years younger than his girlfriend. Pearson correlation coefficient between male and female age is 0.36 ($p < 0.01$). Ninety-seven percent ($n=57$) of the females were senior high school students. One female was a junior high school student and one was working. Among males, 64% were senior high school students, 20% university students, 14% working, and 2% reported a non-specified status. The means of a planned age of marriage were 26.2 years for males and 24.3 years for females.

Sixty percent of the respondents were Islamic, and the rest were Christian (Catholic or Protestant). One respondent did not indicate his religion. Almost all participants correctly reported his/her partner's religious affiliation. Only one male (Islamic) believed that his Catholic partner was Protestant. About 66% of the respondents dated a partner whose religious affiliation was the same as his/her own.

The duration of the current dating relationships (rounded-off in months) ranged from 1 to 48 months, with an average of 13 months; both male and female parties gave almost exactly the same information in regards to the duration of relationship, with $r=0.98$ ($p < 0.01$). The means of males' and females' reports on duration of relationship were 13.3 and 13.4 months, respectively. Median numbers of previous dating relationship of males and females were 3 and 2, respectively. There was a correlation for the number of previous dating relationship between partners, even when the ages of both partners were partialled out ($r_{MF}=0.44$, $p < 0.01$ and $r_{M,F \text{ Age}M, \text{Age}F}=0.46$, $p < 0.01$, respectively).

The existence of the dating relationship was usually known to parents and friends. Only 17% of males and 22% of females reported that the relationship was not known to their parents, and 17% of the respondents (males and females) reported that "no one" or "only close friends" knew about their dating relationship. This means that the majority of the relationships were known to "many friends" or "almost all friends".

Regarding others' reactions to the dating relationships, more than 55% of the participants reported that their parents agreed with their dating relationship. Some respondents (35% of males and 39% of females), however, got no special or indifferent reactions from their parents. Their friends mostly reacted positively (agreeing and

supportive) to their dating relationship. Some participants, however, received “no special reactions” and objections from some friends. According to the participants, their friends agreed with the romantic relationship because the respondent and his/her partner were able to get along with each other and the partner was a good person. “No special reactions” were usually based on an assumption that it was quite normal for someone to have a boyfriend or girlfriend. Objections were usually related to “negative” aspects of a partner, such as a large age difference, or the perceived disloyalty of the person (e.g. “a playboy”).

If there is no sexual attraction in the world...

“For sure I prefer to die than to live without attraction feeling” (15 y.o. female)

“There would be no happiness, never experiencing love” (16 y.o. female)

“It’s emergency! Nobody will get married and have children” (14 y.o. female)

“Oh, I can not imagine it” (18 y.o. male)

“There would be no porn movies, sexual violence, sexual harassment, or sexual experts” (16 y.o. male)

These are some of the answers given by the participants to the question: “Imagine a world without sexual attraction. What do you think about it?”. The answers can be categorised into (a) *hampa* (void), (b) not enjoyable, no happiness, (c) no procreation, the world will end, (d) strange, impossible, and (e) no sex-related concerns. Forty percent of the participants thought that the world would become void (*hampa*), empty. Human beings would feel lonely if there was no sexual attraction in this world. Life in such a world would become “tasteless, like cooking without salt”. Another type of answer, given by 25% of the participants, was that the world would not be enjoyable. There would be no happiness and fun in the world if experiences related to loving someone and being loved by someone else no longer existed. Without sexual attraction, “this world would become extinct, because there would be no descendants” (22%). For others, such a situation was “very impossible” so they were unable to imagine it (11%). Only 3% of the respondents thought that without sexual attraction this world would be a safer place to live, because there would be “no sexual rape”, “no sex criminal”. There would be no other sex-related concerns, such as porn movies and sexual experts.

The answers might reflect the meanings the adolescents gave to a dating relationship and the practices they did in their relationships which, to some extent, related to sexual attraction.

Definitions and purposes of pacaran

The participants were asked to give a definition of what *pacaran* meant to them. Since the question was open ended, there was a lot of variation in the answers given. In addition, respondents provided a lot more information than just a definition. The answers also contained references to the function of *pacaran* and how to deal with it. Some of the results are presented in Table 4.1.

Answers that fit into the definition of *pacaran* varied from expression of love to obligation. The definitions were not only explanatory and descriptive, but were sometimes presented as a metaphor (“a game to be won”). Other metaphors used to define *pacaran* were flower-bee, flower-water, food-salt, and night-stars. These metaphors were accompanied

with explanations, which were used to further identify and categorise the meaning. Four participants used pictorial as well as verbal description to describe the meaning of *pacaran*. Only the verbal definition was analysed.

Table 4.1: The definitions and functions of *Pacaran* provided by the participants

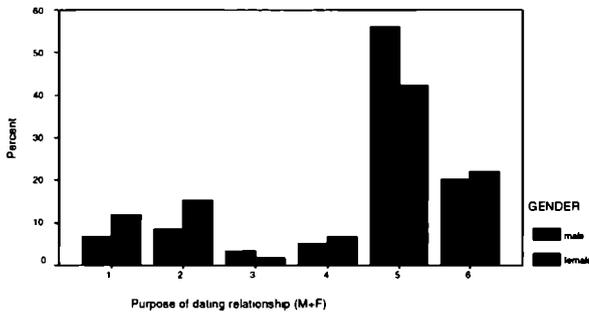
<p>Definitions of <i>Pacaran</i></p> <p><i>Pacaran</i> is:</p> <ul style="list-style-type: none"> - giving exceptional love to someone (F) - a game to be won (F) - a relationship for love exchange (M) - a temporary stage on the way to find destination (M) - preparation for marriage (F) - an occasion for expression of mutual love (M) - a set of obligation (M)
<p>Positive Functions of <i>Pacaran</i></p> <ul style="list-style-type: none"> - knowing/understanding each other (M & F) - knowing each other before marriage (F) - knowing each other to prevent future regret in marriage (F) - finding out own liking (M) - finding a fitting soul mate (M) - complementing each other (M) - helping each other (M) - sharing feelings (F) - satisfying each other (M) - having fun (M) - getting something (F) - filling an emptiness (F) - learning motivator (F) - receiving love (F) - receiving attention (M) - an opportunity for self-presentation to become trusted (M) - maturation (F) - to make happy (F) - creating a bond between a male and female partner (M)
<p>Functions to be avoided:</p> <ul style="list-style-type: none"> - (not) for fun only (M) - (not) for release of sexual drives (F)
<p>How to deal with <i>Pacaran</i></p> <ul style="list-style-type: none"> - facing barriers (M) - just go with the flow (F)

M=Male; F=Female

Answers which concerned the functions of *pacaran* were even more diverse. Some respondents gave a more cognitive meaning, i.e. understanding each other and finding a

fitting soul mate. Other functions were more behavioural and reciprocal, such as sharing feelings and helping each other. Other participants gave more egotistical oriented answers, such as receiving love, a filling of emptiness, and having fun. This kind of function of *pacaran* (for fun, for the release of sex drives), however, was seen by other respondents as functions which should be avoided at all costs in *pacaran*. Other answers gave more emphasis on the process and the goals of *pacaran*, namely a process of maturation, achieving happiness, and creating a bond between partners. When involved in a dating relationship, there are a wide variety of baffling and difficult situations. To deal with such situations, the individuals involved in *pacaran* have to be able to face the barriers and, in most cases, just take things as they come.

Regarding the purpose of dating relationships, 49% of the participants (56% males and 42% females) reported that they were looking for a potential life partner through *pacaran*. There were no significant differences in the purpose of *pacaran* between males and females ($\chi^2=3.6, p>0.05$). Although there was no significant gender differences in the purpose of dating relationship, the graphical result (see Figure 4.1), illustrates that more males than females gave serious answers (“looking for a potential life partner”, “a partner for discussing school lessons”), while more females than males reported that they were dating just for fun or for having a partner to chat with.



Purpose of Dating Relationship: (1) Just for fun; (2) Chatting partner, (3) Partner for discussing school lessons, (4) To be the same as other friends; (5) Looking for potential life partner, and (6) Mixed purposes.

Figure 4.1: The Purpose of *Pacaran* in Males and in Females

Cross-tabulation between males’ and females’ purposes of dating relationships revealed that among dating couples who reported a single purpose of a dating relationship, partners in 51% of the couples reported the same purpose of *pacaran* (See Table 4.2). Among the couples who reported the same purposes, 80% of the couples reported that they were both looking for a potential life partner through *pacaran*. There were, however, some potentially conflicting purposes between a few of the parties involved. Three females reported that they were looking for a potential life partner in their dating relationship, but their partner was dating only for fun or to have a chatting partner. Similarly, nine males were looking for a life partner, while their girlfriends were just doing it for having fun or just wanted to have a chatting partner. Each partner within ten *pacaran* couples chose two or more options from the listed purposes of *pacaran*. The combination of the purposes (mixed purposes), however, was not always the same between parties.

Table 4.2: The distribution of the Purpose of *Pacaran* according to males and females

Crosstabulation of the Purposes of *Pacaran* between Partners within Couples

Count		Purpose of <i>Pacaran</i> (Female)						Total
		just for fun	chatting partner	academic discussion partner	being same as other friends	looking for potential life partner	mixed purposes	
Purpose of <i>Pacaran</i> (Male)	just for fun	2	0	0	0	2	0	4
	chatting partner	1	2	0	1	1	0	5
	academic discussion partner	0	1	0	0	1	0	2
	being same as other friends	0	0	0	1	1	1	3
	looking for potential life partner	4	5	1	1	20	2	33
	mixed purposes	0	1	0	1	0		12
Total		7	9	1	4	25	13	59

The practice of pacaran

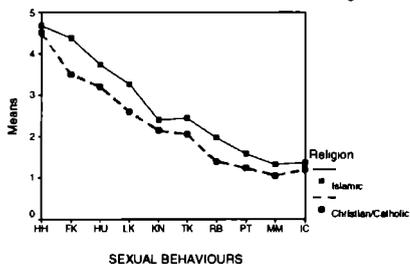
Analyses conducted on the practices of dating relationships focused on two questions: (a) Which practices exist in dating relationships (*pacaran*) (b) How are the individual and dyadic realities related to the practice of *pacaran*? The practices included how the dating partners kept in touch with each other and their sexual behaviours.

In terms of ways of communication, the majority of respondents set up private meetings, made phone calls, or sent short messages (SMS) several times a day. Having private meetings several times a day was possible because many of the dating couples were schoolmates or even classmates. Other activities were done less frequently, only once over a period of more than a week or not on a regular basis. Because many participants often met privately with his/her dating partner, questions on what they did when meeting with their partner were very relevant. The questions were mostly about sexual behaviours.

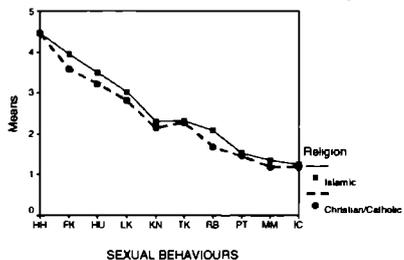
Respondents were first asked an introductory question on whether they did activities together without any physical contact. The introductory question was followed by questions about involvement in ten sexual behaviours, including (a) holding hands (HH), (b) kissing of the cheek or forehead (FK), (c) hugging (HU), (d) lip kissing (LK), (e) neck kissing (KN), (f) kissing of the lips with tongue (TK), (g) rubbing sensitive parts of partner’s body (RB), (h) petting (PT), (i) mutual masturbation (MM), and (j) sexual intercourse (IC). The frequency of each was put on a scale from “Never” (scored 1) to “Always” (scored 6). The introductory question about “doing activities together without physical contact” was not included in the analysis.

As shown in Figures 4.2 and 4.3, the ten reported behaviours declined in frequency, from (a) holding hands (HH) to (j) intercourse (IC), for both the male and female respondents. The sequence of events from holding hands (HH) to intercourse (IC) is invariant across the variation in gender and religion. The sequence and declining tendency may indicate that there is an order of “difficulty” in conducting these sexual behaviours. Hence, this result confirmed the hypothesised sequence of those sexual behaviours. Although Islamic participants tended to report somewhat more frequent sexual behaviours, repeated measures analysis revealed that the frequency of *pacaran* activities were not affected by religion (Wilk’s Lambda, $p > 0.05$) in either gender.

Frequency of 10 Sexual Pacaran Activities of Male Partner in function of their Religion



Frequency of 10 Sexual Pacaran Activities of female partner in function of their religion



Sexual Behaviours (HH) Holding hands, (FK) Forehead/cheek kissing, (HU) Hugging, (LK) Lip kissing, (KN) Kissing neck, (TK) Tongue kissing, (RB) Rubbing, (PT) Petting, (MM) Mutual masturbation, and (IC) Intercourse

Figures 4.2 and 4.3: Frequency of reported sexual behaviours in each gender

Table 4.3: Percentage of dating couples reporting at least “Once” engaging in listed sexual behaviours, and correlation coefficients between couple’s report.

Sexual Behaviours	Males (%)	Females (%)	M-F correlation
Holding hands	95	100	.57
Kissing forehead/cheek	88	86	.87
Hugging	83	80	.78
Lip kissing	73	70	.70
Kissing neck	49	53	.59
Kissing lip with tongue	47	45	.70
Rubbing sensitive parts of partner’s body	35	31	.60
Petting	18	19	.73
Mutual masturbation	11	9	.77
Intercourse	11	11	.80

- The correlations are two-tailed
- All correlations significant at .001

Table 4.3 presents the percentages of the participants reporting involvement in all sexual behaviours at least “once” with his/her current dating partner. The differences between males and females were very small. However, the agreement between males and females within a relationship was not high even though they were presumably reporting on behaviours that they did together. The Pearson correlation coefficients between males’ and females’ reports range from $r=0.57$ to $r=0.87$. All the correlations are significant at 0.01. The declining numbers of respondents reporting their involvement in sexual behaviours from the “easiest” to “the most difficult” is consistent with results presented in Figures 4.4 and 4.5.

Inspection of the correlation matrices also indicates an order of *pacaran* practices. Correlation analyses for both males and females separately or combined on the sexual behaviours show *off-diagonal declines* in correlation for all ten activities. These results are consistent with the descriptive analyses about the order of “difficulty” in engaging in sexual

activities as discussed before. Table 4.4 presents the correlation matrix of sexual behaviours of all participants.

Table 4.4: Correlation Matrix of Sexual Behaviours in *Pacaran*

Correlation Matrix of 10 Sexual Behaviours for All Participants (N=118)

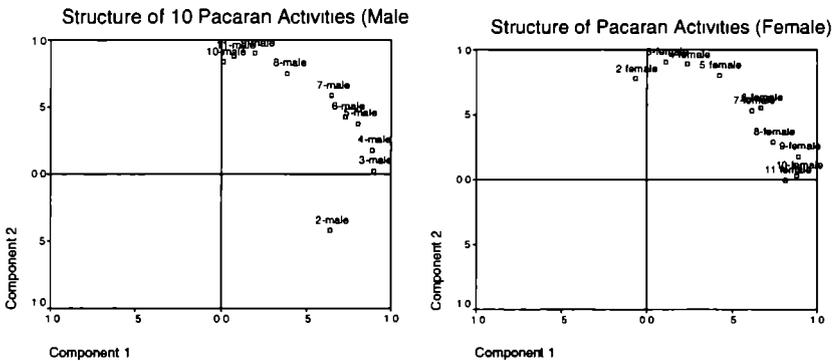
	HH	FK	HU	LK	KN	TK	RB	PT	MM	IC
HH	-									
FK	.621**	-								
HU	.472**	.807**	-							
LK	.340**	.671**	.749**	-						
KN	.231*	.548**	.649**	.713**	-					
TK	.141	.431**	.569**	.780**	.760**	-				
RB	.044	.316**	.417**	.491**	.632**	.636**	-			
PT	-.056	.230*	.321**	.516**	.549**	.647**	.700**	-		
MM	-.060	.159	.213*	.327**	.429**	.386**	.522**	.745**	-	
IC	-.065	.113	.200*	.342**	.380**	.447**	.527**	.722**	.769**	-

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed)

Sexual Behaviours: (HH) Holding hands, (FK) Forehead/cheek kissing, (HU) Hugging, (LK) Lip kissing, (KN) Kissing neck, (TK) Tongue kissing, (RB) Rubbing, (PT) Petting, (MM) Mutual masturbation, and (IC) Intercourse

A factor analyses found the presence of a circumplex structure of sexual behaviours for males and females separately. Figures 4.4 and 4.5 show the circumplex structure. The first factor consists of holding hands, forehead/cheek kissing, hugging, lip kissing, neck kissing, and tongue kissing, while the second factor comprises lip kissing, neck kissing, tongue kissing, rubbing, petting, mutual masturbation, and intercourse. The two factors are interpreted as “superficial” and “deep” sexual behaviours. The word “superficial” was selected to refer to behaviours which are physically done *on the surface* of the clothes or body. The word “deep” was used because it contains a connotation of an *intrusion* inside the clothes or into the body. On the basis of the findings one can speculate that both factors represent a “courtship ritual” and both rituals are connected by lip kissing, neck kissing, and tongue kissing (See Table 4.5). Because these rituals are associated with intimacy between the dating partners, hence the words “intimacy ritual” are used interchangeably with “courtship ritual”.



Figures 4.4 and 4.5: The circumplex structure of Sexual behaviours in each gender

Table 4.5: The factor loadings of sexual behaviours items for both males and females

Rotated Component Matrix^a

	Component	
	1	2
Holding Hands (HH)-male		688
Cheek/Forehead Kissing (FK)-male		886
Hugging (HU)-male		828
Lip Kissing (LK)-male		697
Kissing Neck (KN)-male	.414	.586
Lip Kissing with Tongue (TK)-male	.547	.530
Rubbing (RB)-male	725	
Petting (PT)-male	897	
Mutual Masturbation (MM)-male	886	
Intercourse (IC)-male	825	
Holding Hands (HH)-female		681
Cheek/Forehead Kissing (FK)-female		894
Hugging (HU)-female		870
Lip Kissing (LK)-female	.402	.788
Kissing Neck (KN)-female	.571	.610
Lip Kissing with Tongue (TK)-female	.595	.549
Rubbing (RB)-female	676	
Petting (PT)-female	785	
Mutual Masturbation (MM)-female	777	
Intercourse (IC)-female	795	

Rotated Factor Matrix, Couples

^a Factor Loadings <0.40 are deleted

Neck kissing and tongue kissing for males, and lip kissing, neck kissing, and tongue kissing for females loaded on both factors. The pattern of these loadings can be interpreted as indicating a *superficial intimacy-ritual* which consists of holding hands, forehead kissing/cheek kissing, hugging, lip kissing, and neck kissing. Lip kissing with tongue, rubbing sensitive parts of partner’s body, petting, mutual masturbation, and sexual intercourse, belong to the *deep intimacy-ritual*. The total scores for superficial and deep rituals were computed by summing over the raw scores of the respective behaviour items.

There is a within-couple concordance in reporting the frequency of the two rituals of dating behaviours. In the superficial intimacy ritual, the correlation between males’ and females’ reports is $r=0.81$ ($p<0.01$), while in the deep intimacy ritual the correlation is $r=0.75$ ($p<0.01$). Paired t-test analyses on both rituals between males and females found no between-gender difference, with $p=0.27$ and $p=0.55$ for superficial ritual and deep ritual, respectively. For both genders parental knowledge about their relationship was not associated with the practice of *pacaran* on the two factors (Wilk’s Lambda, $p>0.05$). The number of previous dating relationships was also not correlated with the level of practice on the two factors in males and females. Age and duration of relationships, however, were partly correlated with superficial and deep rituals. The age difference between dating partners was associated significantly with superficial as well as with deep rituals in both genders (see Table 4.6).

Table 4.6: Correlation between Level of practice of Intimacy Rituals and background Variables

Variables	Superficial Ritual		Deep Ritual	
	Male	Female	Male	Female
Age	0.39**	n.s.	0.24*	n.s.
Duration of Relationship	0.41**	0.39**	n.s.	n.s.
Age difference (Male-Female)	0.41**	0.35**	0.26*	0.24*
Number of previous <i>pacaran</i>	n.s.	n.s.	n.s.	n.s.
Parents knowledge	n.s.	n.s.	n.s.	n.s.

All correlations are one-tailed * Significant at .05, ** Significant at .01, n.s. Not significant

As shown in Table 4.6, age was positively correlated with an involvement in superficial and deep rituals only among male respondents, with older males reporting more frequent involvement in superficial and deep courtship rituals. Duration of relationship was associated only with superficial courtship behaviours in both genders. The age difference was correlated with superficial and deep ritual involvement both in male and female parties. The bigger the age difference between male and female parties, the more likely the involvement in the superficial and deep intimacy rituals would occur in dating couples.

Emotional consequences of sexual behaviours

Respondents were also asked to describe their feelings associated with each of the behaviours. They were asked to report the emotional reactions felt *during* involvement in sexually related behaviours, and the emotional reactions felt *the day after* doing the related activities. Some respondents did not report the feelings associated with certain behaviours although they engaged in the behaviours.

The open-ended question format provided a variety of answers. Most participants used words directly explaining feelings (e.g. happy, sad). In some cases respondents reported cognitive reactions (“want to know more”), behavioural tendencies (“want to do more”, “want to do it again”), or physiological symptoms (“increasing speed in the heart beat”) instead of feelings. Some reported emotional reactions were similar to each other in terms of their contents. In analysing the emotional reactions the reported emotional responses were categorised according to the content. For an example, feeling glad, happy, comfortable, feeling closer, and peaceful were grouped into one category. Another category consisted of feeling bored, uncomfortable, and disappointed. Certain behaviours made the involving persons curious, or want to know more. Although curiosity is more cognitive, it was included in the same category as “want to do more” and “want to do it again”, the commonality being a tendency to repeat the behaviours or to do the actions in different ways.

The categorisation resulted in 15 groups of emotional reactions. Descriptive analyses on the 15 groups of reactions revealed that many categories had zero or very low frequencies in relation to the reported behaviours. Examples of low-frequency emotional reactions include “loving (more), protecting”, and “nervous, embarrassed”. To make it easier to identify patterns in the emotional consequences of sexual behaviours among romantic couples, the groups of feelings were recoded into five categories, namely (1) positive emotions, such as being glad, happy, comfortable, peaceful, loving more, feeling loved, and being satisfied, (2) an action tendency to do or repeat the behaviours, such as being curious, wanting to meet again, wanting to do more, and wanting to do it again, (3) negative emotions, such as being uncomfortable, embarrassed, nervous, angry, afraid, regretful, and not wanting to do it again, (4) throbbing, which included feeling surprised and increasing heart rate, and (5) no special feelings.

The recoding still resulted in some reactions which could not be categorised. These were coded as missing cases in subsequent analyses. Those emotional reactions were (a) mixed between positive and negative emotions, such as feeling glad but afraid at the same time, (b) “ticklish”, and (c) “keep thinking about it”, “(often) remember it”. These three groups are similar in that they could be positive or negative in nature. For example, a respondent reported feel glad but was also afraid of pregnancy after engaging in intercourse. Some participants experienced feeling ticklish (*geli*) when doing lip kissing, but it is not clear whether the feeling is positive or negative. “Keep thinking about it” and “(often) remember it” could also be positive or negative. Thinking about past behaviours could be positive if the behaviours had made the person happy, satisfied, or excited. It might be negative if he or she always thought about it with guilty feeling, regret or anger. In fact, the “throbbing” and “no special feelings” categories were also not clearly positive or negative, but they were still used in the revised categorisation because they were explicitly reported by many respondents in relation to several behaviours.

There was one *specific* emotional reaction which was reported particularly by females *when* they were engaging in certain sexual behaviours. The reaction was more physiological, namely “*geli*” (“ticklish”). This feeling was reported by 37% (11 of 30 persons) of female respondents as being evoked during neck kissing. Due to the specificity and difficulty to categorise “ticklish”, this reported emotional reaction was recoded as missing cases in the next analysis. Other specific reactions which were reported as emerged during the involvement in sexual behaviours were “feeling surprised”, and “increasing the speed of heart beat”. Both emotional reactions were group into one category (throbbing). They were different, but may be related to each other.

There were three *specific* emotional reactions which were reported as felt *the day after* doing certain sexual behaviours. The emotional reactions were “feeling of longing for him/her”, “keep thinking about it”, and “forget about it”. The feeling of longing for one’s partner increases the tendency to meet again, and probably the tendency to be involved in sexual behaviours too. Hence, “longing for him/her” was included under the category of “curiosity”. Rumination (“keep thinking about it”, “often remember it”) was reported by several respondents mostly in association with kissing, petting, rubbing, and masturbation by both males and females. About 5-10% of males and 9-21% of females reported such reactions. It is not clear whether these reactions were positive, negative, or curiosity-related reactions. It may have been positive in the sense that the respective behaviours made him/her feel glad, happy, feeling loving or being loved, etc, so he/she would always remember what had happened. The reactions, however, may also have been negative because the behaviours made him or her feel embarrassed, guilty, angry, regretful, etc, so he or she could not easily forget it. It was also not clear whether these recurring thoughts were related curiosity. Hence, these responses were recoded as missing cases. Another specific reported emotional reaction reported the day after behaviour engagement was “forget about it”. The report that respondents “forget about” concerning the behaviours they had done in the day before may indicate that he or she had no special feelings. Hence this answer was included under the category of “no special feelings”.

Descriptive analyses were performed on the recoded data, and the results presented in Tables 4.7 and 4.8. The tables summarize the total male and female respondents reporting their emotional reactions in each behaviour. As mentioned before, not all participants engaging in certain behaviours reported their emotional reaction associated with the behaviours. Only valid cases after the recoding were analysed, whereas the missing cases were left out. For some behaviours the total numbers are less than or exceeding 100% because of rounding off process.

Table 4.7: Percentage of males and females reporting emotional reactions *when* involving in sexual behaviours

Behaviours evoking feelings (when doing it) (N _M , N _F)	Males (%)					Females (%)				
	E1	E2	E3	E4	E5	E1	E2	E3	E4	E5
Holding hands (53, 54)	55	-	8	4	34	70	-	2	2	26
Kissing forehead/cheek (48, 47)	65	-	8	6	21	75	-	2	4	19
Hugging (45, 44)	69	-	7	11	13	73	-	2	11	14
Lip kissing (39, 38)	54	-	8	31	8	53	-	11	26	11
Kissing neck (27, 19)	44	11	11	26	7	37	5	21	16	21
Tongue kissing (26, 26)	50	8	4	27	12	65	8	12	4	12
Rubbing partner's body (18, 15)	17	33	22	22	6	33	-	27	33	7
Petting (9, 10)	33	11	22	22	11	40	10	50	-	-
Mutual masturbation (7, 3)	43	14	14	14	14	67	-	33	-	-
Intercourse (4, 5)	50	-	50	-	-	60	-	40	-	-

E1: positive emotions, E2. curiosity, E3: negative emotions; E4. throbbing; E5. no special feelings

N_M: Number of males included in the analysis

N_F: Number of females included in the analysis

It can be seen in Table 4.7, that many males and females reported positive emotions (E1) when they were involved in sexual behaviours. However, rubbing partner's body and petting were not accompanied by positive feelings for many males. Similarly, relatively fewer females reported positive feelings when they were doing neck kissing, rubbing, and petting. On the other hand, there was a tendency toward relatively more reports of negative emotions (E3) from holding hands to engaging in intercourse in both genders. Positive *and* negative emotions were reported by both males and females in any sexual behaviour. Curiosity (E2) was more common among males than females, especially when they were rubbing their partner's body. Such curiosity was brought about by activities of neck kissing to mutual masturbation. Another emotional reaction was throbbing (E4). This reaction was more common among males than among females, and feeling surprised and an increasing heart rate happened in relation to almost all sexual behaviours. The number of reports on these emotional reactions started to increase with hugging. Reports about "no special feelings" (E5) decreased when the behaviours were more "difficult", especially among females. This means that the deeper the behaviours were the more likely certain feelings were evoked. Similar to the reports on curiosity, "no special feelings" was reported by more males than females. Interestingly, more females (60%) than males (50%) reported having had positive feeling while engaging in intercourse. Correspondingly, more males (50%) than females (40%) reported having negative feelings while having sex with their girlfriend.

As shown in Table 4.8, on the day after involvement in sexual behaviours, reports of curiosity (E2) and "no special feelings" (E5) were more frequent in both genders, but it was more apparent among males. Curiosity was not restricted to a specific behaviour. However, curiosity was reported especially after an involvement in deep intimacy rituals, from tongue kissing to intercourse. Females also reported that they were curious after involving in sexual behaviours except after intercourse. The sexual behaviours which the emotional effect were lasted until the day after involvement were intercourse for males, and petting, mutual masturbation, and intercourse for females. Hence there were no participants reporting "no special feeling" related to these behaviours. Positive emotions (E1) were reported by males especially in association with superficial ritual behaviours, from holding hands to neck kissing. This pattern is similar with the females' reports, but more females than males reported that they had positive feelings on the day after rubbing partner's body and petting.

Table 4.8: Percentage of males and females reporting emotional reactions *the day after* involving in sexual behaviours

Behaviours evoking feelings (<i>after</i> doing it) (N _M , N _F)	Males (%)					Females (%)				
	E1	E2	E3	E4	E5	E1	E2	E3	E4	E5
Holding hands (51, 48)	14	14	2	-	71	23	10	-	-	67
Kissing forehead/cheek (43, 37)	16	23	5	-	56	22	24	3	3	49
Hugging (41, 39)	20	24	2	-	54	18	31	3	5	44
Lip kissing (37, 30)	14	41	3	-	43	23	33	13	-	30
Kissing neck (25, 22)	12	48	8	-	32	5	18	23	-	55
Tongue kissing (24, 22)	21	63	-	-	17	18	23	18	5	36
Rubbing partner's body (18, 15)	-	56	17	6	22	13	33	33	-	20
Petting (9, 9)	-	56	22	-	22	11	11	78	-	-
Mutual masturbation (7, 3)	-	43	29	-	29	-	67	33	-	-
Intercourse (5, 3)	-	40	60	-	-	-	-	100	-	-

E1: positive emotions, E2. curiosity; E3. negative emotions, E4. throbbing; E5. no special feelings

N_M: Number of males included in the analysis

N_F: Number of females included in the analysis

As seen in the table, there was a trend in both genders to report increased negative feelings (E3) the day after doing the “easiest” to the “most difficult” sexual behaviours. The day after petting 78% of the female participants reported having had negative emotions, but only 22% of their male counterparts reported similar emotions. Petting evoked curiosity for 56% of the males, but only 11% of the females. There were no reports about positive emotions on the day after mutual masturbation and intercourse in both genders. Mutual masturbation brought up curiosity in 67% of the females, and negative emotions for 33% of the females. The day after engaging in intercourse, the 40% of males reported positive emotions, and 60% reported being curious. All females who had engaged in intercourse reported having had negative emotions, which include regret, guilty feelings, afraid, and not wanting to do it again. Some respondents reported the reasons of having negative feelings, such as “if others know”, “if unexpected things happened” and pregnancy. Throbbing (E4) were reported by only a small number of respondents in association with only some behaviours.

Compared to the reports on *when* doing the behaviours, the number of participants reported to have had positive emotions (E1) on *the day after* sexual behaviour involvement was much lower. The most salient difference was the number of participants who reported curiosity (E2) and throbbing (E4) between the day they *were doing* and the day *after doing* sexual behaviours. Many more males and females reported curiosity on the day after engaging in any sexual behaviour compared to when they were doing it. The curiosity included “wanting to do more” and “wanting to do it again”. The number of participants who reported “no special feelings” was also higher on the day after than during involvement in sexual behaviours.

Analyses were also done to examine the development of the reported emotional reactions from the time of involvement to the day after the actions. Cross tabulation analyses of the reported feelings between “*when* doing” and “*after* doing” are presented in Tables 4.9 and 4.10. As presented in Table 4.9, nineteen percent of males, who had positive emotion when engaging in sexual behaviours, also reported a positive emotion the next day, while 37% of them became curious, and 42% had no special feelings anymore. Sixty percent of the male respondents who reported curiosity during the behaviour involvement still felt curious the day after, whereas 30% of those who felt negative emotional reactions still had a similar

emotion on next day Interestingly, curiosity on the day after was always reported as felt by some participants no matter the feelings they had had during the behaviour involvement

Table 4 9 Cross-tabulation of the emotional reactions between the time of behavioural actions to the day after the action among Males (%)

Emotional Reactions	The day after involvement					Total	
	Positive emotion	Curiosity	Negative emotion	Throbbing	No special feelings	%	N
During behaviour involvement							
Positive emotion	19	37	2	0	42	100	138
Curiosity	20	60	10	10	0	100	10
Negative emotion	5	25	30	0	40	100	20
Throbbing	12	45	12	0	31	100	42
No special feelings	2	5	0	0	93	100	43

Table 4 10 summarizes the results for females Among the female participants, 26% of them who had positive feelings when doing the sexual behaviours also reported having positive feelings, and 29% experienced curiosity the next day Fifty percent of the females who were initially curious still felt curious the next day, and 62% of the female respondents who had negative feelings when involving in sexual behaviours reported negative emotions the day after As with the male reports, curiosity was felt on next day by some females whatever the original emotion during the involvement in sexual behaviours The majority both of male and female respondents who reported having no special feeling when engaging in sexual behaviours also had no special feelings on the day after the activities The analyses also revealed that curiosity and negative emotions seemed to last longer than positive emotion and other emotional reactions

Table 4 10 Cross-tabulation of the emotional reactions between the time of behavioural actions to the day after the action among Females (%)

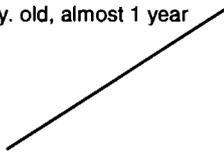
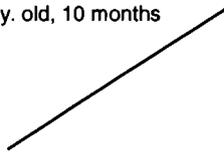
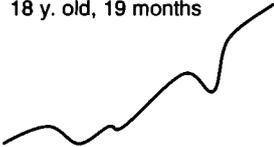
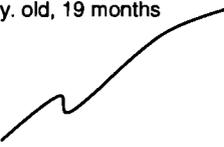
Emotional Reactions	The day after involvement					Total	
	Positive emotion	Curiosity	Negative emotion	Throbbing	No special feelings	%	N
During behaviour involvement							
Positive emotion	26	29	6	2	37	100	130
Curiosity	0	50	0	0	50	100	2
Negative emotion	0	12	62	0	27	100	26
Throbbing	27	32	18	5	18	100	22
No special feelings	3	8	0	0	89	100	38

Course of relationships

The graphical reports on the course of relationships were coded in terms of slope (increasing, flat, or decreasing) and linearity (absence or presence of ups and downs) One

male did not make the graph, while all females did. Table 4.11 illustrates some prototypes of the graphical presentation of some of the participants and that of his/her partner, and notes regarding the slope, linearity, and similarities between each partner. The table also provides information about the age of the participants and the duration of relationship they were involved in.

Table 4.11: Prototypes of perceived course of relationship in *pacaran* couples

Male	Female	Notes/Coding
17 y. old, almost 1 year 	17 y. old, 10 months 	Slope: increasing Linearity: no ups and downs (simple linear) Similarity: similar in both categories
18 y. old, 19 months 	25 y. old, 19 months 	Slope: increasing Linearity: not linear (with ups and downs) Similarity: similar in slope, different in linearity
18 y. old, 24 months 	16 y. old, 25 months 	Slope: inverted U (Male) and increasing but tend to decrease at the end (Female) Linearity: non linear Similarity: different in both aspects
15 y. old, 19 days 	16 y. old, 19 days 	Slope: flat ((Male) and decreasing (Female)) Linearity: linear for Male and not linear for female Similarity: Different in both aspects

Seventy-one percent of the male and 75% of the female participants reported an increase in the development of their relationship. Stability or steady progress was reported by 24% of the males and 22% of the females. The rest perceived that the course of their relationship was declining, or increasing and then declining (inverted U shape). Intra-couple agreement about increasing progress of relationship was found on the reports of 37 couples (64%). Regarding the presence or absence of ups and downs in the relationship, 43% of the males and 42% of the females reported a simple linear development in their relationship. The rest (about 57%) reported that their relationship was progressing in an up and down pattern. In terms of linearity, 27 couples similarly reported the presence of ups and downs and 19 couples similarly reported linear progress. The presence of a slope or linearity was not related to the duration of relationships (in half years), both in males and females (Chi Squares, $p > 0.05$ in both genders).

An analysis was also carried out to detect the intra-couple similarity of the perceived course or relationship. The similarity should appear in both aspects (slope and linearity). The

analysis revealed that the course of relationships was perceived as similar in both slope and linearity by 52% of the participants. Discriminant analyses revealed that the similarity between male and female reports on the courses of relationships was not associated with the duration of relationship (Wilk's Lambda, $p > 0.05$ in both genders).

Feelings and predictions about pacaran

The dating relationships evoked a variety of feelings in the individuals involved. The feelings were mostly positive. The reported positive feelings included (a) feeling confident, peaceful, glad, happy, which were also combined with other positive feelings (65%). However, 11% of the respondents reported that they felt worried, distressed, doubtful, disappointed, and bored with the relationship (b). Sixteen percent of the participants reported mixed positive and negative feelings (c), and the rest (8%) had no special feelings about the relationships (d). These feelings were not related to gender and the duration of relationship (Chi squares, $p > 0.05$). Discriminant analyses, however, found that among males the feelings concerning dating relationship were associated with an involvement in deep intimacy ritual (Wilks' Lambda, $p < 0.05$), but not with an involvement in superficial ritual. Among females, the feelings about *pacaran* were not related to an involvement in the superficial and deep intimacy rituals.

Respondents were asked to predict the future of the relationship from the following four alternatives: whether it would go smoothly to marriage, with difficulties but would eventually end in marriage, it would break up before marriage, or they did not know. Forty-two percent of males and 41% females believed that their relationship would, smoothly or with difficulties, end in marriage. A significant number of respondents (49% of males and 47% of females), however, reported that they did not know about the future of their relationships. The belief that the "real partner of life" (*jodoh*) is in the hands of God or *Allah* was reported by most of the respondents giving a "don't know" answer. Other reasons for giving a "don't know" answer were (a) they were still too young, and (b) they really did not know about it. About 10% of the respondents believed that their relationship would break up before marriage.

Table 4.12: Predictors of Belief that the Relationship leads to Marriage

Predictors	Males (n=29)	Females (n=31)
Duration (in half years)	n.s.	Rho = 0.63**
Linearity (no ups and downs)	Rho = 0.49**	n.s.
Increasing slope (progress)	Rho = 0.40*	n.s.

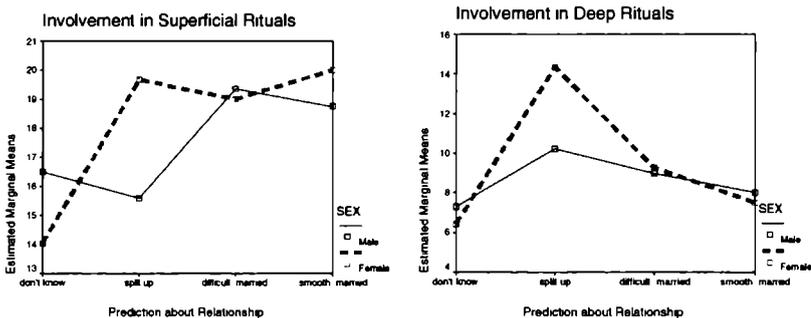
All correlations are two-tailed. * Significant at .05; ** Significant at .01; n.s. Not significant

After excluding "Don't know" answer, the prediction about the possibility that the current relationship would continue until marriage was correlated with past experiences within the present *pacaran* relationship. The past experiences were the duration of present relationship, absence of ups and downs (linearity), and perceived progress (slope) of the course of relationships. The prediction for the future of relationship was whether it would be going smoothly to marriage, with difficulties but going to marriage, or breaking up before marriage. The results are presented in Table 4.12.

From Table 4.12 it is apparent that males and females used different bases for estimating whether the relationship will end in marriage or break up before marriage. Females used the duration of relationship in predicting the future of their relationship. They believed that the longer the relationship lasted, the greater was the likelihood of marriage to

their current dating partner. Males, on the other hand, used smoothness and progress of the relationship to predict the future. Males who perceived that there were no ups and downs in their current relationship believed that they would marry their current partner. also, the more increasing tendencies of the relationship course were, the more likely males predicted that the relationship would end in marriage. The marriage prediction was not correlated with feelings about current relationship (Kendal tau's, $p>0.05$ for both genders).

MANOVA of Gender (2) by Prediction about the relationship (4) did show that the prediction about the future of relationship was significantly related to involvement in both superficial and deep intimacy rituals (Wilks' Lambda, $p<0.01$). The analysis also found that there was no difference between males and females in their current involvement in either superficial or deep sexual rituals.



Figures 4.6 and 4.7: Involvement in Superficial and Deep Rituals in relation to Prediction about the Future of Relationship

It can be seen in Figures 4.6 that the involvement in superficial ritual of *pacaran* was more frequent among the male and female participants who predicted that, either smoothly or with difficulties, they would marry their current dating partner. Involvement in superficial rituals was also frequent among females who predicted that they would break up before marriage. In contrast, the male participants who predicted that their current relationship would end before marriage reported a low engagement in (less frequent) superficial courtship ritual, which consisted of holding hands, kissing cheek or forehead, hugging, lip kissing, and kissing neck. Figure 4.7 shows that females who predicted an eventual break up of their relationship also reported a high involvement in deep ritual, which included tongue kissing, rubbing sensitive parts of partner's body, petting, mutual masturbation, and intercourse. Males' report of deep ritual activities seemed not be related to the predicted future of *pacaran*. However, the involvement in deep intimacy ritual was slightly higher among male participants who estimated a break up compared to those who predicted marriage or who reported not knowing about the future of their relationship. Nevertheless the reported males' involvement was lower or less frequent than that of females who had similar prediction about their current relationship.

Discussion

This study on *pacaran* among Indonesian adolescents aimed to answer questions on (a) how adolescents in Central Java give meaning to *pacaran*, (b) how adolescents feel and act within their romantic relationship, and (c) how adolescents evaluate the future course of their present relationship. Several findings have been selected for further discussion.

Pacaran in Indonesia: is it specific?

Thinking about a world without sexual attraction seems quite frightening for most adolescents, and only a few could see the positive aspects of such a world. Living in a world with no sexual attraction was viewed as impossible or, if it was, there would be no happiness, no procreation, and completely void. In fact, the adolescents in this study did experience sexual attraction. The sexual attraction led them into a dating relationship (*pacaran*) in which many feelings and behaviours were involved. When they were asked to define *pacaran*, various answers were given. Many answers were serious in that dating relationships were associated with love, marriage, and reciprocal processes for development. It seems that there is confusion, or more precisely a strong association, between *dating relationship* and *love*. Such “confusion” was also found by Montgomery and Sorrel (1998) in their study about love.

For many Indonesian adolescents, a dating relationship is a way to find a fitting soul mate, a potential life partner. Many in-love adolescents also think about the possibility of marriage. In western culture dating relationships seem to be regarded as normal (e.g. Collins, 2003), something that every adolescent should be involved in, regardless of the purpose of the relationship. According to Paul and White (1990), the functions of dating relationships are recreation, socialisation, status achievement, courtship, sexual experimentation, companionship, and identity formation and individuation. Among these functions, recreation, sexual experimentation, status, and identity formation were not *mentioned* by the Indonesian adolescents in relation to dating relationships in this study. The definitions and functions of *pacaran* mentioned by Indonesian adolescents resemble the advantages of having a romantic partner as found by Shulman and Scharf (2000) in their study on Israeli adolescents. In their study the advantages of having a romantic partner are companionship, excitement, attachment, care, and sex.

The difference between the findings of the Indonesian study and those carried out in western cultures is possibly related to cultural values and life styles. In many western countries, living together without marriage is socially acceptable, as are sexual relationships with unmarried couples. Although many dating relationships last for more than one year (e.g. Shulman & Scharf, 2000; Collins, 2003), the people involved are not urged to get married, at least not in the near future. In contrast, in Indonesian culture sexual relationships are reserved for the marriage context, although many people are nonetheless involved in premarital or extra-marital sexual relationships. This study also found that some *pacaran* couples engaged in intercourse, despite the explicit opinion of some participants that a dating relationship is “not for release of sexual drives”. In spite of the practices of non-married sexual relationships, it is clear in this study that Indonesian adolescents make an association between *pacaran* and marriage, even though most of them are still young.

Dating activities as intimacy rituals

This study found a well-structured sequence of enacted sexual behaviours the “easiest” to “the most difficult”. Such a sequence was also reported by Crockett, Raffaelli, and Moilanen (2003). The ‘easiness’ of sexual behaviors are psychological, social, and consequential. Holding hands, for example, is psychologically and socially much easier to do than lip kissing. Hence, compared to lip kissing, holding hands is more frequently done by dating couples since they may hold each others’ hands in public, but not kiss lips. Many sexual behaviours do not only need more interpersonal skills, but also have big psychological, social, and economical consequences. Intercourse, for example, may bring about pregnancy which, in turn, has further negative consequences such as being expelled from school.

This study on *pacaran* found two intimacy rituals, namely superficial and deep rituals. It has been explained that the terms “superficial” and “deep” are used in a more physical meaning, and do not indicate the level of intimacy. Superficial sexual behaviours refer to behaviours that are done on the surface of the body or clothes. Deep behaviours indicate intrusion, in the clothes or in certain areas of body. Deep intimacy ritual does not necessarily mean that the dating couples more intimate psychologically. Rostosky et al. (2000) found out that the dating couples that engaged in non-penetrative sexual behaviours also reported a higher level of intimacy. It was also reported that the couples involved in sexual intercourse perceived a higher level of conflict.

Involvement in intimacy rituals are related to age, the duration of relationship, and male-female age difference. Age is associated with an involvement in both rituals only among males. Other studies in Indonesia found that being male and being older was associated with higher reports of both non-coital as well as coital behaviours (Setyonaluri et al., 2005; Utomo, 2003). Studies conducted in other countries report similar findings (e.g. Cleveland, 2003; Bersamin et al., 2006). McCabe and Collins (1983) found that older adolescents were more permissive about sexual behaviours, from holding hands to intercourse. Deptula et al. (2006) found that older adolescents tended to perceive more benefits associated with sexual intercourse. It is important to note, however, that these studies did not include couples, while the Indonesian *pacaran* study did interview both members of relationship.

This study found that the longer the relationship lasted, the more likely the couples reported frequent involvement in superficial ritual, but not in deep ritual. This finding can be compared with the results of McCabe and Collins’ (1983) study. They used stages of dating relationship, which probably were associated with the duration of relationship, in relation to sexual behaviours, from holding hands to intercourse. They found that involvement in sexual behaviours increased with the development of the dating stage.

This study found that the greater age difference between males and females was, in which males were older than females, the more likely was the involvement in superficial and deep rituals in both genders. This finding is in line with the results of other studies which were conducted in different cultural backgrounds (Young & d’Archy, 2005; Kaestle et al., 2002). The increased involvement in sexual behaviours in relation to age difference may be due to the weaker bargaining position of the younger party (in this case female) who is unable to assert herself.

This study also found that the parents’ knowledge about adolescent dating relationships was not correlated with the involvement in dating rituals in either male or female. The parents’ knowledge about what was happening with their children was associated with communication or relationships between parents and their children. Some studies on adolescent sexual behaviours and parental communication found different results. Miller et al. (1999) found that maternal monitoring and general communication were associated with less frequent sexual intercourse and fewer sexual partners among adolescents. Maternal communication about sex, however, inconsistently related to adolescent sexual behaviours. Wight et al. (2006) also reported inconsistent findings about parental communication and adolescent sexual behaviours. A study by Bersamin et al. (2006) revealed that parental communication about sex was correlated with vaginal sex, but not oral sex. Huebner and Howell (2003) found that parental monitoring was associated with low sexual risk-taking behaviours of adolescents, but parenting style and parents-adolescents communication had no relationship with sexual risk-taking behaviours of the children. The Indonesian *pacaran* study found that parent knowledge was not associated with an involvement in sexual behaviours or intimacy rituals. On one hand, this result may be due to the topic asked in this study. The question was about parent knowledge about the dating

relationship of their child, and not about other matters related to the parent-adolescent relationship. On the other hand, this finding is consistent with those of other studies on adolescent sexual behaviours and parental communication.

Relationship experiences and expectations about its future

During and after engagement in sexual behaviours, adolescents reported various feelings. There were different patterns found for *during* and *after* sexual involvement, and between *males* and *females* in the reported emotional reactions. Generally more females than males reported positive emotional reactions when engaging in sexual behaviours, including intercourse. On the day after the behaviours, however, the difference between both parties were less visible. Compared to males, females were more likely to report negative feelings, including social embarrassment (“if others know”) and fear of pregnancy. Other studies also found a negative emotional effect of sexual behaviours. Oswalt et al. (2005) found that young people were regretful about their involvement in sexual behaviours. There were a number of reasons for regret, such as disagreement with their own morals and values, the influence of alcohol, not using condom, and feeling pressured by the partner. The participants of that study, however, were not worried about pregnancy. Kaltiala-Heino et al. (2003) found that involvement in advanced sexual behaviours (from kissing to intercourse) was associated with increased self-reported depression in both males and females. Situmorang (2003) who conducted a study on young people (aged 15-24 years) in Medan, Indonesia found that “sinful” was the most frequently reported feeling after the first intercourse.

Curiosity was more common among males than females when they were taking part in sexual behaviours. Curiosity seemed to increase the day after the behavioural involvement, especially among females. Engaging in intercourse did not provoke a feeling of curiosity; the feelings evoked were just positive or negative. The couple might have been so overwhelmed by the experience that they did not think about other things. The next day, however, the curiosity began to emerge. The emerging or increasing curiosity a day later took the form of wanted to know more, even to do more. It was found in this study that 60% of males and one of two females who felt curious when engaging in sexual behaviours were still curious the next day. In addition, curiosity emerged the next day among adolescents who felt positive, negative, curious, or throbbled, or had no special feelings when involving in sexual behaviours. Rosenthal et al. (1997) found that curiosity was also one of the factors of involvement in sexual behaviours, especially intercourse. Welling and Field (1996) also found that adolescents were more curious after engaging in intercourse for the first time. In the Indonesian context (Situmorang, 2003) curiosity is one of the reasons for engaging in pre-marital sex, especially among males.

Beside emotional experiences related to sexual behaviours, dating couples also reported feelings about their dating relationship. Adolescents involving in *pacaran* mostly reported positive feelings about their relationship. However, the feelings about the current dating relationship were not correlated with the marriage-predicted outcome of the relationship. This predicted outcome was associated with involvement in sexual behaviours or intimacy rituals. Adolescents who reported not knowing about the future of the relationship had a lower level of involvement in both superficial and deep intimacy rituals. Predictions about future marriage, smoothly or with difficulties, were associated with a more frequent involvement in superficial ritual, but less frequent involvement in deep ritual. There was a tendency that involvement in deep ritual was more frequently related to a predicted break up of the relationship, especially among females. These findings are opposite to what was discussed by Rosenthal et al. (1997), who did their research in the United States. They found that that sexual intercourse might make females perceive that the relationship was

more serious, and hence, long-lasting. The findings of this Indonesian study, however, are in concordance with the findings of Rostosky et al. (2000). In a longitudinal study, they found that involvement in non-penetrative sexual behaviours (which is probably the equivalent of superficial ritual) predicted the longevity of a romantic relationship among late adolescent couples. Also in a longitudinal study, Shulman et al. (2006) found that the relationship longevity was influenced by how the dating couples dealt with conflict. Integrative, rather than downplaying or conflictive, conflict resolution predicted a longer lasting relationship. An involvement in sexual ritual, especially from the viewpoint of females, may take place by adopting a non-integrative approach when resolving conflicts with their partner. In other words, the female parties may feel pressured by their partner to engage in sexual behaviours. This could explain why, in the present study, females' report about involvement in intimacy rituals, especially deep ritual, was associated with perceived break up of their relationship. This hypothesis about the possibility of pressured involvement in sexual behaviours and its relation to a perceived break-up risk of dating relationship among female adolescents requires further study.

Strengths and weaknesses of this study

This study on dating relationships among adolescents in Indonesia was relatively comprehensive in this area of study. It covered the meaning of the relationship, behaviours, feelings, course of relationship, and the future expectations. Most studies in this area of research focused on sexual behaviours and the psychological or socio-demographical correlates (e.g. Kaltiala-Heino et al., 2006; Flora & Segrin, 2000; Rosenthal et al. 1997; Huebner & Howell, 2003). Studies in Indonesia have usually been done in the context of public health interests, especially adolescent reproductive health. In such studies, the focus has been on the sexual behaviours in dating relationships (e.g. Utomo, 2003; Setyonaluri et al., 2005). Thus, the comprehensiveness of this *pacaran* study is a first in Indonesia.

The study has some limitations. Although this study used interviews to collect data, they were not in-depth interview. Therefore, there were no further explorations of participants' initial answers, particularly those that were unclear or otherwise interesting. Examples are the answers to questions about the meaning of *pacaran* and the feelings about *pacaran*. An in-depth interview might have resulted in clearer or more complete answers and, hence, a deeper understanding of the individuals' experiences when participating in *pacaran*.

Most of the respondents of this study were dating couples of which both parties are senior high school students. On one hand, this may be a methodological weakness because there are not many variations within each couple. It also limits the generalisation of the findings to senior high school adolescents. On the other hand, it may also have advantages as it reflects a reality that many senior high school students date others with the same status.

This study included questions about the course of *pacaran* and predictions about the future of the relationship. However, the method did not evaluate directly the development over time of the relationships. A longitudinal design is recommended for future Indonesian studies covering these topics. Examples of studies using a longitudinal design are Rostosky et al. (2000) and Shulman et al. (2006). Rostosky and co-workers did one-year follow up study, whereas Shulman and colleagues conducted a two-year follow up study of the longevity of adolescent relationships.

This study found inconsistencies in the effects of the duration of relationship on the course of relationship, behaviours, predictions, and feelings about the relationship. If the duration of relationship was too short, there might be less variation in relationship-related experiences, and reflections about the relationship not as deep. In this study about 12% of participants the relationship had existed for one month or less. However, these participants

were included in the study for two reasons. First, most of participants who currently had been dating for one month or less had previously been involved in other romantic relationships. It was assumed that they had had enough experiences to think about *pacaran*-related matters. Second, by including couples with diverse durations of relationship, this research served as a cross-sectional study. It is also necessary, however, to give a minimal criterion in the duration of a relationship, as had been done by Shulman et al. (2006). Studies comparing limited and non-limited duration of relationships are also recommended.

There are also some strengths in the present research. There have been a few studies of the course of dating relationships among adolescents. Flora & Segrin (2000) used a questionnaire to measure the trajectory of a relationship. The method used in this study was different. The participants were asked to draw a line graph representing the development of their current relationship from the beginning of the relationship up to the time of interview. Although this kind of method still needs further study regarding its validity and interpretability, the use of diverse methods can complement each other to obtain a comprehensive understanding of the topics of study.

Not much research-based literature was found on the existential aspects of adolescent dating relationships, such as the meaning of *pacaran*. Paul and White (1990) did a literature review and concluded that there were eight functions of adolescents dating relationships. It is also important to understand adolescent romantic relationships from adolescents themselves. In a study on love and dating experiences of adolescents Montgomery and Sorell (1998) asked open-ended question about the meaning of love. A similar way of getting adolescents to share the meaning of their experiences was also done in this *pacaran* study. The question asked in this study was about the meaning of *pacaran* (romantic or dating relationship) from the point of view of the respondents. The answers, in my opinion, are very important for understanding the reasoning behind adolescent dating behaviours from the point of view of adolescents themselves. However, more studies in a variety of socio-cultural settings need to be conducted.

This *pacaran* study is one of only a few studies on adolescent relationships having both partners from a dyad as participants. Some of the other studies having dyadic participants are by Rostosky et al. (2000), Duemmler and Kobak (2001), Cleveland (2003), and Shulman et al. (2006). One advantage of recruiting dating couples as participants is the ability to identify the dynamics of the relationship: agreements or differences in behaviours, feelings, purposes, and personal meanings of the relationship. The findings are meaningful for developing programs -educational or counselling programs- for young people in relation to romantic relationships.

References

- Bersamin, M. M., Walker, S., Fisher, D. A., & Grube, J. W. (2006). Correlates of oral sex and vaginal intercourse in early and middle adolescence. *Journal of Research on Adolescence, 16*, 59-68.
- Cleveland, H. H. (2003). The influence of female and male risk on the occurrence of sexual intercourse within adolescent relationship. *Journal of Research on Adolescence, 13*, 81-112.
- Collins, W. A. (2003). More than myth: The developmental significance of romantic relationships during adolescence. *Journal of Research on Adolescence, 13*, 1-24.

- Connolly, J., Craig, W., Goldberg, A., & Pepler, D. (2004). Mix-gender groups, dating, and romantic relationships in early adolescence. *Journal of Research on Adolescence*, 14, 185-207.
- Crockett, L. J., Raffaelli, M., & Moilanen, K. L. (2003). Adolescent sexuality: behaviour and meaning. In G. R. Adams & M. D. Berzonsky (Eds.). *Blackwell Handbook of Adolescence*. Malden: Blackwell Publishing.
- Deptula, D. P., Henry, D. B., Shoeny, M. E. & Slavick, J. T. (2006). Adolescent sexual behaviour and attitudes: A costs and benefits approach. *Journal of Adolescent Health*, 38, 35-43.
- Duemmler S. L. & Kobak, R. (2001). The development of commitment and attachment in dating relationships: attachment security as relationship construct. *Journal of Adolescence*, 24, 401-415.
- Flora, J. & Segrin, C. (2000). Relationship development in dating couples: Implications for relational satisfaction and loneliness. *Journal of Social and Personal Relationships*, 17, 811-825.
- Forste, R & Haas, D. W. (2002). The transition of adolescent males to first sexual intercourse: Anticipated or delayed?. *Perspectives on Sexual and Reproductive Health*, 34, 184-190.
- Furman, W., Brown, B. B., & Feiring, C. (Eds). (1999). *The Development of Romantic Relationships in Adolescence*. New York: Cambridge University Press.
- Gebhardt W. A., Kuyper, L., & Dusseldorp, E. (2006). Condom use at first intercourse with a new partner in female adolescents and young adults: The role of cognitive planning and motives for having sex. *Archives of Sexual Behavior*, 35, 217-223.
- Goldstein, S. E. & Tisak, M. S. (2004). Adolescents' outcome expectancies about relational aggression with acquaintanceships, friendships, and dating relationships. *Journal of Adolescence*, 27, pp 283-302.
- Guggino, J. M. & Ponzetti, Jr., J. J. (1997). Gender differences in affective reactions to first coitus. *Journal of Adolescence*, 20, 189-200.
- Huebner, A. J. & Howell, L. W. (2003). Examining the relationship between adolescent sexual risk-taking and perceptions of monitoring, communication, and parenting styles. *Journal of Adolescent Health*, 33, 71-78.
- Kaestle, C. E., Morisky, D. E., & Wiley, D. J. (2002). Sexual intercourse and the age difference between adolescent females and their romantic partners. *Perspectives on Sexual and Reproductive Health*, 34, 304-309.
- Kaltiala-Heino, R., Kosunen, E., & Rimpela, M. (2003). Pubertal timing, sexual behaviour and self-reported depression in middle adolescence. *Journal of Adolescence*, 26, 531-545.

- MacLean, R. (2004). Teenagers who think sex is important may wait less time with new partners. *Perspectives on Sexual and Reproductive Health*, 36, 172-173.
- McCabe, M. P. & Collins, J. K. (1983). The sexual and affectional attitudes and experiences of Australian adolescents during dating: The effects of age, church attendance, type of school, and socioeconomic class. *Archives of Sexual Behaviour*, 12, 525-539.
- Miller, K. S., Forehand, R. & Kotchick, B. A. (1999). Adolescent sexual behaviour in two ethnic minority samples: The role of family variables. *Journal of Marriage and the Family*, 61, 85-98.
- Montgomery, M. J. & Sorell, G. T. (1998). Love and dating experience in early and middle adolescence: Grade and gender comparisons. *Journal of Adolescence*, 21, 677-689.
- Oswalt, S. B., Cameron, K. A., & Koob, J. J. (2005). Sexual regret in college students. *Archives of Sexual Behaviour*, 34, 663-669.
- Paul, E. L. & White, K. M. (1990). The development of intimate relationships in late adolescence. *Adolescence*, 25, 375-400.
- Rosenthal, S. L., Burklow, K. A., Lewis, L. M., Succop, P. A., & Biro, F. M. (1997). Heterosexual romantic relationships and sexual behaviours of young adolescent girls. *Journal of Adolescent Health*, 21, 238-243.
- Rostosky, S. S., Galliher, R. V., Welsh, D. P., & Kawaguchi, M. C. (2000). Sexual behaviours and relationship qualities in late adolescent couples. *Journal of Adolescence*, 23, 583-597.
- Schwartz, I. M. (1999). Sexual activity prior to coital initiation: A comparison between males and females. *Archives of Sexual Behavior*, 28, 63-69.
- Setyonaluri, D. H., Kusumaryani, M. S. W., Antarwati, E., Tobing, H. M., & Ahsa, A. (2005). Laporan hasil temuan survei pemahaman kesehatan reproduksi dan perkawinan usia dini. Kerjasama Badan Koordinasi Keluarga Berencana Pemerintah Propinsi Daerah Khusus Ibukota Jakarta dengan Lembaga Demografi Fakultas Ekonomi Universitas Indonesia (Reports of findings of the survey on reproductive health knowledge and early marriage. A joint cooperation between the Family Planning Coordination Board of the Jakarta City and the Demographic Institute, Faculty of Economics, University of Indonesia.). *Unpublished research report*.
- Shulman S., & Collins, W. A. (Eds.). (1997), *Romantic relationships in adolescence: developmental perspectives*. San Fransisco: Jossey-Bass
- Shulman, S. & Scharf, M. (2000). Adolescent romantic behaviours and perceptions: Age- and Gender-related differences, and links with family and peer relationships. *Journal of Research on Adolescence*, 10, 99-118.
- Situmorang, A. (2003). Chastity and curiosity: Attitudes and behavior of young people in Medan regarding virginity and premarital sex. *Journal of Population*, 9, 27-54.

- Utomo, I. D. (2003). Adolescent reproductive health in Indonesia: Status, policies, programs, and issues. POLICY Project. www.policyproject.com/pubs/countryreports/ARH_Indonesia.pdf. Retrieved on October 6, 2006.
- Wellings, K. & Field, B. (1996). Sexual behaviour in young people. *Bailliere's Clinical Obstetrics and Gynaecology*, 10, 139-159.
- Wight, D., Williamson, L., & Henderson, M. (2006). Parental influences on young people's sexual behaviour: A longitudinal analysis. *Journal of Adolescence*, 29, 473-494.
- Youn, G. (1996). Sexual activities and attitudes of adolescent Koreans. *Archives of Sexual Behavior*, 25, 629-643.
- Young, A. M. & d'Archy, H. (2005). Older boyfriends of adolescent girls: the cause or a sign of the problem? *Journal of Adolescent Health*, 36, 410-419.
- Zimmer-Gembeck, M. J., Siebenbruner, J., & Collins, W. A. (2001). Diverse aspects of dating: associations with psychosocial functioning from early to middle adolescence. *Journal of Adolescence*, 24, 313-336.

**Indonesian Adolescent Sexuality and Romantic Relationships:
Exploratory Studies**

Chapter 5:

**PERSONAL RESOURCES IN ADOLESCENT SEXUALITY AND
INTERPERSONAL RELATIONSHIPS**

**Studies on Self-concept, Self-efficacy, and Coping Strategies among Central
Java Adolescents**

Chapter 5

PERSONAL RESOURCES IN ADOLESCENT SEXUALITY AND INTERPERSONAL RELATIONSHIPS

Studies on Self-concept, Self-efficacy, and Coping Strategies among Central Java Adolescents

1. Introduction

The Central Java Sexuality Research Project also investigated personal resources which might be related to the sexuality and interpersonal relationships of adolescents. The resources which were covered in this research were coping, self-efficacy, and self-concept. The objectives of the studies on personal resources were (a) to describe the personal resources for interpersonal relationships among adolescents in Central Java and their distribution, and (b) to determine the degree to which the three types of personal resources (self-concept, self-efficacy, and coping styles) function independently. This chapter reports the results of the study on the personal resources.

According to Antonovsky (1979, p. 112) coping is an “overall plan of action for overcoming stressors”. This definition is more cognitive, although it consists of planned actions. Lazarus and Folkman (1984, p. 141) define coping as “constantly changing cognitive and behavioural efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person”. This definition indicates that coping is a process which covers both cognitive and behavioural aspects. It also indicates that a coping strategy is contextual and, as a process, it may change from time to time. Patterson and McCubbin (1987, p. 167) define coping as a “specific cognitive and/or behavioural response of an individual or a group of individuals to reduce or manage demand(s)”.

Much research has examined coping, but there has been less research on adolescent coping than on coping in other age groups (Seiffge-Krenke, 1995). In her review Seiffge-Krenke also found that more research was done on coping with chronic illness as well as critical life events than on coping with daily minor stressors. Seiffge-Krenke herself has done a lot of research on coping in adolescence (e.g. Seiffge-Krenke, 1990; Seiffge-Krenke, 1993; Seiffge-Krenke, 1995; Seiffge-Krenke, 2000; Nieder & Seiffge-Krenke, 2001; Seiffge-Krenke & Beyers, 2005). The studies provide an insight into on how adolescents cope with minor daily stressors, such as problems with school, teachers, parents, peers, romantic relations, self, future, and leisure time.

Studies on coping have found a gender effect on coping strategy, but the effect is not always strong (e.g. Frydenberg & Lewis, 1991; Frydenberg & Lewis, 1993; Shulman, 1993; Seiffge-Krenke, 1993; Patterson & McCubbin, 1987; Renk & Creasy, 2003; Kausar & Munir, 2004). In general, males were more problem-focused than were females. Besides, females often turned to social support in dealing with problems. Some studies also found that coping was influenced by cultural background (e.g. Oláh, 1995), age (e.g. Seiffge-Krenke, 1993), school level and school types (e.g. Frydenberg & Lewis, 1991; 1993), parental or family relationships (e. g. Shulman, 1993), and religiosity (e.g. Alferi, Culver, Carver, Arena, & Antoni, 1999).

Interpersonal relationships can be a setting for coping as well as functioning as a moderating variable. Nieder and Seiffge-Krenke (2001) reported that adolescents had to cope with the development of romantic relationship process. Seiffge-Krenke (1995) also reported that relationships with others (parents, teachers, peers, and romantic partner) were to some extent stressful for adolescents so they needed to cope with them. Pollina and Snell (1999) suggested that coping behaviours and strategies used in intimate relationship stress might be different from those that were used in other problem areas. Shulman (1993) reported that

adolescents who perceived their family climate as conflict-oriented and expressive-independence oriented did less active coping than young people who perceived their family as control-oriented and expressive-intellectual oriented. Adolescents who perceived the family climate as conflictive also reported more frequent dysfunctional coping style, i.e. withdrawal.

Some studies on coping also included religious coping. Pargament did several studies on religious coping in the United States (e.g. Pargament et al., 1992; Pargament et al., 1994; Pargament, Smith, Koenig, & Perez, 1998). In Pargament and colleagues' studies, the religious coping measure consisted of six scales, namely 'spiritually based coping', 'good deeds', 'religious avoidance', 'discontent', 'religious support from clergy', and 'plead' (Pargament et al., 1992; Pargament et al., 1994). In another study Pargament et al. (1998) categorised religious coping as positive and negative coping. Kausar and Munir (2004) did a study on coping with stress among adolescents in Pakistan. The study also included a religious coping style in addition to active and avoidance coping styles. It was found that the coping styles were influenced by the loss of a parent and by gender: females employed more coping strategies than males, and adolescents living with both parents did active-distractive and religious coping more than adolescents living with one parent. Those studies conducted in different socio-cultural backgrounds assumed and revealed the existence of religious coping.

Shulman (1993) found that coping, in terms of active coping, internal coping, and withdrawal, among adolescents was associated with adolescent relationships with parents and with peers. Relationships with others, including relationships with parents and with peers, were often included in the measures on self-concept (e.g. Shavelson, Hubner, & Stanton, 1976; Marsh & O'Neill, 1984). Therefore, a relationship between coping and self-concept was possible, as also found by Seiffge-Krenke (1990).

Self-concept is broadly defined as a person's perception of himself or herself (Shavelson et al., 1976), as a general image or mental representation a person has about his or her personality (Peters, 1998; Van der Werff, 1990), or a composite view of oneself (Bandura, 1997). The image or perception is formed through personal experiences in interactions with environment, especially significant others, and an evaluation of the experiences. However, according to Byrne (1996) there is no definition of self-concept which is universally accepted. Self-concept is different from self-esteem, in which self-concept is descriptive, while self-esteem is regarded as evaluative aspect of self-concept (Van der Werff, 1990; Byrne, 1996). However, as reviewed by Byrne, the two constructs are often used interchangeably. Other terms which are often used as having the same meaning as self-concept are self, self-image, self-perception, self-identity, self-estimation, self-awareness, and self-consciousness.

There have been reviews of the development of models in constructing the self-concept, from unidimensional to multidimensional models of the self-concept (e.g. Hattie, 1996; Marsh & Hattie, 1996; Peters, 1998; Byrne, 1996). The unidimensional perspective refers to a general or global self-concept, such as proposed by Coopersmith and Rosenberg (Byrne, 1996). The multidimensional model assumes that there are several concepts of self in association with several aspects of a human being. There is an academic self-concept, a social self-concept, a physical self-concept, and other specific self-concepts. The specific self-concepts can be distinguished from each other, but probably there are also correlations among the self factors. Marsh and O'Neill (1984), using a multidimensional construct of self-concept, showed that specific self-concepts can be differentiated, and that achievement or performance in a specific domain was related to the corresponding self-concept. One of the multidimensional perspectives of self-concept is the hierarchical model (e.g. Shavelson et al., 1976; Marsh, Byrne & Shavelson, 1988; Marsh & Hattie, 1996).

In their review of research on self-concept, Prout and Prout (1996) found that the self-concept was affected by stressful conditions, such as physical disabilities and unfavourable family situations (e.g. divorce), abuse, and adolescent pregnancy or teenage motherhood. People with such stressful situations generally showed lower self-concept compared to those without the stressful conditions. Seiffge-Krenke (1990) found that the way individuals cope with stress is correlated with self-concept. She found that active coping was related to high self-esteem and good relationships with parents, while problem avoiders reported a very depressed self-concept.

Marsh (1989a) reported the effects of age on self-concept. From pre-adolescence through to middle adolescence, there was a linear decline in self-concept. Starting from middle adolescence to late adolescence and early adulthood the self-concept increased. However, this interpretation of linear decrease and then increase in self-concept was criticised as being exaggerated (been put hard to explain the broader meaningfulness of what appears to be a very slight change) by Crain (1996). Marsh (1989a) also reported statistical differences between gender in the multidimensional self-concept, but he admitted that the variance explained by gender was very low. Boys tended to have higher self-concept in physical and mathematical self-concept, while girls had higher self-concept in verbal and general academic ability (see also Crain, 1996).

Another perception of the self which to some extent may interact with the self-concept is self-efficacy. Self-efficacy is a concept that was introduced by Albert Bandura. According to him self-efficacy is "beliefs in one's capabilities to organize and execute the courses of action required to manage prospective situations" (Bandura, 1995a, p. 2; see also Bandura, 1997; Bandura, 1992). The beliefs influence how the person thinks, feels, and acts in response to the situations. He further explained that self-efficacy motivates the persons to do actions, and it is a key factor in the generative system of human competence. The generative capability of self-efficacy means that people with similar ability will probably have different performance if one feels more efficacious than the other. Self-efficacy is multidimensional in line with the multidimensionality of human beings. Self-efficacy is "not contextless". This also means that self-efficacy is applicable in many domains of human behaviour, such as development, education, interpersonal relationships, and health. Two examples of publications containing the applicability of self-concept in many aspects of life are the books edited by Bandura (1995b) and by Schwarzer (1992b).

During the transitional period of adolescence, self-efficacy plays an important role in how they deal with their sexuality, especially in motivating the adolescents to put the information they got into practices (Bandura, 1997). In the HAPA (Health Action Process Approach) model, Schwarzer (1992a; 1999) gave a strong emphasise on the role of self-efficacy in individual health behaviours. The roles of self-efficacy in the behavioural process could be found during behavioural planning (motivation phase) as well as during behavioural execution (action phase).

Research has been done on self-efficacy in various contexts, including self-efficacy in several aspects of adolescent life (e.g. Murphy, Rotheram-Borus, & Reid, 1998; Santelli et al., 2004; Charlton, Minagawa, & While, 1999). Murphy et al. (1998) found gender differences in self-efficacy related to sexual risk behaviours, in which generally females felt more efficacious in making her partner use condom and in planning to avoid risky situations. Santelli et al. (2004) reported inconsistent findings about the relation of self-efficacy and initiation of intercourse among middle school adolescents. In the first period of measurement in a longitudinal study (the end of seventh grade), it was found that adolescents with high scores on self-efficacy were less likely to initiate intercourse. However, in the second measurement (the end of eighth grades), students with higher scores on self-efficacy were more likely to engage in intercourse initiation. From the literature and research reviews it

can be expected that self-efficacy is predictive of behaviours. However, more studies still need to be done to indicate the roles of the self-efficacy in the actual behaviours.

2. Method

The data were collected within the framework of the large-scale survey on senior high school students in six regions of Central Java and the study on *pacaran* (dating/romantic relationship) among adolescents in Semarang City.

2.1. Measures

Four instruments were used to measure the personal resources of adolescents for their interpersonal relationships. In addition to the main measures, information about the background of the participants had also been gathered in the large-scale study and in the *pacaran* study. The description of the measures of background information has been provided given in the preceding chapters.

2.1.1. The measurement of coping styles

To measure how Indonesian students cope with problems, an available instrument was used as a main tool to measure their coping behaviours. The instrument was the Coping Across Situation Questionnaire (CASQ) which was developed by Seiffge-Krenke (1995). This instrument measures three coping styles, i.e. active coping, internal coping, and withdrawal. The CASQ was used in this study for several reasons. First, the instrument was developed in the context of the lives of young people. The problem areas covered in the instrument indicate that the CASQ was developed in youth context. Second, the instrument has been used in many studies on coping among young people (e.g. Seiffge-Krenke, 1995; Seiffge-Krenke, 2000; Nieder & Seiffge-Krenke, 2001; Seiffge-Krenke & Beyers, 2005; Shulman 1993). The research using CASQ indicate that the instrument was scientifically accepted. Third, the items of CASQ use simple sentences and language, hence it is easier to understand and the probability of misperceptions is lessened. The forth reason is more practical. The CASQ has 20 items. It was necessary to select as short an instrument as possible because of time constraints imposed by the many topics covered in the Central Java Sexuality Research Project.

The 20 items of the CASQ were translated into Indonesian (*bahasa Indonesia*) with two minor adaptations. The first adaptation was to the item “I try to get help from institutions (job centre, youth welfare offices)”. Because such institutions were not available or not relevant in the Semarang context, they were replaced with “youth centre, psychological consultation centre, etc.”, which were available in the city and often had contact with young people. Another adaptation was to the item “I try to forget the problem with alcohol and drugs”. Alcohol drinking is not popular in Central Java, and alcoholic drinks are not easily accessible, especially for young people. Drugs are prohibited by law in Indonesia although many young people use drugs. However, this item was used in the study with an additional behavioural possibility which to some extent is similar to alcohol and drugs, i.e. smoking. Smet, Maes, De Clercq, Haryanti, and Winarno (1999) found that adolescents (aged 11-17) in Semarang smoked more when they were feeling lonely and having problems. The smoking behaviour might be a way to cope with their loneliness and other problems. The CASQ was translated by the researcher and back translated by a native speaker. The back translation indicated that the Indonesian version of CASQ was not different from the original CASQ in terms of its content.

The original CASQ identifies eight problem areas, namely school, teachers, parents, peers, romantic relations, self, future, and leisure time. Two versions of the adapted CASQ was made (versions A and B). Both versions had the same items but a different number of

response options. Version A was more detailed, with eight problem areas (school, teachers, parents, peers, romantic relations, self, future, and leisure time) plus one “other unexplained problems”. Scores for each item range from 0 (never done by the respondents) to 9 (done by the respondents in all problem areas). Version B has the same items as Version A, but was more general in nature, meaning that it was applicable for any problems. The response options in version B were “Yes”, “No”, and “Depending on the problem”. Answers “Yes” were coded 2, “No” coded 0, and “Depending on the problem” coded 1.

Beside CASQ, open questions were also used in measuring coping in the pilot study. The students were asked to write down the problems they had in the last three months, and how they coped with the problems. There were also two versions of the open questions. Version A used detailed problem areas, while version B was presented in general term. One hundred-and-fourteen students received questionnaire version A and 73 students received version B.

Factor analyses with Varimax rotation revealed that the three coping styles of CASQ (active coping, internal coping, and withdrawal) were confirmed by the pilot study, although the item distribution over the factors was not exactly the same as the original CASQ. Many of the items about active coping were pooled in the same factor, as were the items for withdrawal. However, some items about internal coping were mixed with items about active coping and withdrawal.

The open-ended questions about how adolescents coped with their problems revealed several behaviours not included in the CASQ. The students reported that when having problems they *also* did activities related to religion or faith, such as praying, asking help from God, and relying on God. These results were used to construct new items which were added to the CASQ to measure the religious coping behaviours of Central Java adolescents.

Four new items were constructed on the basis of participant answers to the open questions in the pilot study. The answers refer to religion-related behaviours. The new items were constructed in line with the three coping styles of CASQ, namely active (1 item), internal (2 items), and withdrawal (1 item). In addition to the item modifications, the problem area was also modified to focus only on difficulties or problems in interpersonal relationships, including intimate relationships. The focus on interpersonal problems was done mainly because the survey was about sexuality and interpersonal relationships of adolescents. Interpersonal relationships included several problem areas from the original CASQ, i.e. relationships with teachers, parents, peers, and romantic relations. It might be also associated with leisure time and self.

The pilot study also revealed that the questionnaire with a detailed response option (version A of CASQ in pilot study) was very difficult for many senior high school students, especially the first year students. The response options of version B of CASQ (“Yes”, “No”, and “Depending on the problems”) was to some extent also confusing, especially the difference between “Yes” and “Depending on the problems”. Therefore, frequency-related response options was selected for the survey, namely “Never/Almost never” (coded 1), “Sometimes” (coded 2), “Often” (coded 3), and “Always/Almost always” (coded 4).

To summarise, the coping instrument used in the *survey* had 24 items, was focused on difficulties or problems with interpersonal relationships, and used four response options reflecting the frequency of use of the coping strategy.

The instrument for measuring coping in the *Pacaran Study* among adolescent *dating couples* was constructed with an open-ended question format. The participants were asked whether they had had conflicts with their dating partner, parents, or friends, related to their romantic relationship. They were also asked about the causes of the conflicts, how to resolve the problems, and the results of their coping strategies. Hence, the questions were more about problem solving or conflict resolution rather than about coping in general.

2.1.2. Measures of self-efficacy

The self-efficacy investigated in this study was self-efficacy in interpersonal relationships. There were two measures of self-efficacy in interpersonal relationships. One measure was designed for *in-school* data collection, and the other one was for *out-school* data collection. The participants of both data collection were senior high school students. The two instruments had the same number of items and the same response format on the questionnaire, but had somewhat different contents. Several items of the two instruments were the same, namely the items about intimate relationships.

The self-efficacy measures consisted of 19 items to be answered on a 7-point scale. The question in this measure was “to what extent do you feel it is difficult or easy to do these behaviours?” The respondents answered the questions by rating their efficacy from 1 (“Very difficult”) to 7 (“Very easy”). The items covered a wide range of interpersonal relationships, from initiating a contact, friendship, close/romantic relationships, dealing with friends or close/romantic friends (including expressing different opinion, feeling, agreeing, and refusing), dealing with proposals to be involved in sexual behaviours, and ending friendships or close/romantic relationships. The instrument used the word “*pacar*” (romantic/dating partner) to indicate an intimate relationship. For those who did not have a romantic partner, the word “*pacar*” could be replaced with “very close friend”. This explanation was included in the instrument.

The instrument for *in-school students* covered initiating a contact, initiating and maintaining a friendship, dealing with friendship, dealing with involvement in “risky behaviours” (general terms), and ending a friendship or romantic relationship. The instrument for *out-school students* did not include items on friendship and used words clearly mentioning involvement in sexual behaviours, such as kissing, rubbing genital organs, and intercourse. Different instruments were used for in-school and out-school data collection for two reasons. First, interpersonal relationships among adolescents cover both friendships and romantic relationships. Hence, it was necessary to include both settings of relationships. Kissing, genital fondling, and intercourse are often done in romantic relationships. Second, with regards to minimising the social desirability effect, sexually explicit items were not used in the in-school data collection. Because the self-efficacy measure for out-school students contained explicit sexual behaviours between romantic partners, for those who did not have or never had a romantic partner were asked to imagine “in case you were in those situations”. To differentiate the two self-efficacy measures, slightly different names were given to each instrument. The instrument used in the in-school data collection was named the *interpersonal self-efficacy* measure, while the measure used in the out-school data gathering was named the *intimate interpersonal self-efficacy* measure.

The two instruments were developed by the researcher. The instrument for in-school data collection was tested in a pilot study with 187 students of a senior high school in Semarang. The pilot study revealed that the items were understandable by the students. A factor analysis with Varimax rotation revealed that the interpersonal self-efficacy instrument had three dimensions explaining 41% of the total variance. The three dimensions were friendship efficacy, romantic or intimacy efficacy, and risk taking efficacy. Friendship efficacy included perceived skills in initiating and maintaining friendship, and taking care of others’ feelings. Romantic or intimacy efficacy covered behaviours related to dating proposal or proposal for intimate close relationship and proposal to be involved in risky behaviours. Risk taking efficacy consisted of perceived efficacy in taking risks in a relationship, such as attention getting, refusing, and terminating a relationship.

2.1.3. Measure of self-concept

Chapter 2 described how the self-concept scale was developed by the researcher on the basis of the 13 facets of the Self Description Questionnaire (SDQ) III which was developed by Marsh (1989b). The 13 facets are academic-math, academic-verbal, academic-general, academic-problem solving, physical ability, physical appearance, peer relations-same sex, peer relations-opposite sex, relations with parents, spiritual values/religion, honesty/trustworthiness, emotional stability, and general self. Each facet consisted of four items, one of which was negatively worded. The total number of items on the self concept scale was 52. The scale was named as Self-concept Short Scale (SCSS). The participants rated how much each statement was applicable for them, using a-7 point scale, from 1 (“Not applicable for me”) to 7 (“Very much applicable to me”).

2.1.4. Background information

Socio-demographic information gathered in the survey. The information concerned region of living, school type attended, school semester, gender, and age. Six regions were selected on the basis of maternal mortality ratio (MMR) 1999 of the Central Java Province. The regions selected were ranked and coded from the lowest to the highest MMR, namely Semarang City (coded 1), Pekalongan City (coded 2), Semarang Regency (coded 3), Kudus Regency (coded 4), Kebumen City (coded 5), Pemalang Regency (coded 6). The school type attended by participants were public, Islamic, Catholic, Protestant, and national school. The four last schools are private schools, with national school a private religion-unrelated school.

For out-school data collection, the information about the school attended was optional, meaning that the respondents were free to answer it or not. In the study on *pacaran*, information of couple’s background consisted of gender, age, duration of relationship, status (junior high school student, senior high school student, university student, working, other/non-specified status), number of previous dating relationships, and religion.

2.2. Participants

The large scale survey had been conducted in six regions in Central Java, namely Semarang City, Pekalongan City, Semarang Regency, Kudus Regency, Kebumen City, Pemalang Regency. The participants included 10,608 students of 65 senior high schools in those areas. The selected schools were from all types of schools (public, Islamic, Catholic, Protestant, and national schools). The ages of the participants range from 14 to 20 years, with the Mean of 16.8 years. They were 46% males and 54% females. Seventy-nine percent of them were Islamic, 8% Catholic, 11% Protestant, 1% Buddhist, and the rest were Hindu and others.

The out-school students were also recruited from the same six regions as the in-school students. The age range was also 14 to 20 years, with the Mean of 16.97 years. Forty-six percent of them were males. The religious affiliations of out-school students were Islam (67%), Catholic (19%), Protestant (13%), and Buddhism (1%).

In the small scale study with *pacaran* couples, the participants were 59 dating couples, at least one party of each couple was a senior high school student. Sixty-one percent of the couples were both senior high school students. The participants’ age ranged from 14 to 25 years.

2.3. Procedure

For the large-scale survey with in-school students, data collection was conducted during school hours. The classes of students involved in the study were chosen by the schools and the research team, during the preliminary visits (see Chapter 2). All the students in the selected classes were recruited as participants. Classroom data collection was handled

by one or (mostly) two trained assistants. The assistants handed the questionnaire out to the students, and gave a short explanation of the research and how to answer the questionnaire. It was emphasized that “we want to learn from you” about the lives of senior high school students. The issue of confidentiality was also emphasized in the introduction. The issues of “to learn from you” and confidentiality were also written on the cover of the questionnaire. During the data collection process, the assistants made notes about the process of data collection and answered questions from the students. The notes were used as qualitative information in interpreting the data.

Out-school data collection was done in the same period and the same regions as in-school data gathering. The participants were also senior high school students who did not participate in the in-school survey. They were recruited individually outside school hours, and they answered the questionnaire on the spot. After the questionnaire was completed, it was put in an envelope and sealed in front of the respondent.

The study on dating couples used a structured interview for gathering data. The recruited couples were interviewed by trained assistants using a detailed interview guide, in which participants’ answers were written. Male and female parties of each couple were separately interviewed by the same assistant. The issue of confidentiality was emphasized during the first contact and was stressed again before the interview started. After the interviewed had finished, the completed interview sheet was put into an envelope which was sealed in front of the participant.

2.4. Analyses

Data from the two studies were analysed in a number of ways. Data from in-school and out-school students were analysed separately from each other because they have different variables. Psychometric analyses were done only for the survey data. Exploratory analyses were also executed to determine the distribution of coping strategies, self-efficacy, and self-concept across region, school type, school semester, and gender. Data from the dating couples were content analysed and categorised.

Data on each topic (coping, self-efficacy, and self-concept) were analysed and will be reported separately. The report starts with the personal resource which is most visible (i.e. coping). Reports on self-efficacy follow the coping reports, because self-efficacy, compared to self-concept, is more predictive to behaviours (e.g. Bandura, 1997). A report of some combined analyses on the three personal resources will then be made.

3. Results

The results presented in this chapter include descriptive reports, psychometric reports, and group comparisons. The groups to be compared are region, school type, school semester, and gender.

3.1. Results of the coping study

3.1.1. Descriptive reports

The coping measure used frequency-related response options, from “Never/Almost never” (scored with 1) to “Always/Almost always” (scored with 4). The overall Mean and Standard Deviation of each item (of all respondents) is presented in Table 5.1. The items with religious contents (items no. 6, 11, 16, and 24) were translated from *Bahasa Indonesia*, while the other items presented in the table are from the original version of the CASQ items.

Table 5 1 Mean and Standard Deviation of each Coping item (sorted from the highest to the lowest Means)

Item No.	Item Formulation	Mean	SD
11	I ask God to give me strength to face the problem	3.35	74
24	I pray more to ask guidance from God of what I should do	3.25	81
16	I accept the situation whole heartedly because I believe that God has good intentions by giving me the temptation	3.10	85
12	I think about the problem and try to find different solutions	2.87	83
6	I involve in many religious activities in order to forget my problem	2.67	87
22	I try to solve the problem with the help of my friends	2.64	91
5	I accept my limits	2.63	90
15	I tell myself that there always be problems	2.63	94
17	I only think about the problem when it appears	2.48	89
9	I try to let my aggression out (with loud music, riding my motorbike, wild dancing, sport, etc)	2.42	1.08
7	I try to talk about the problem with the person concerned	2.35	96
4	I expect the worst	2.30	82
19	I try not to think about the problem	2.27	88
8	I behave as if everything is alright	2.24	93
13	I compromise	2.16	81
1	I discuss the problem with my parents/other adults	2.12	82
10	I do not worry because usually everything turns out alright	2.11	88
2	I talk straight away about the problem when it appears and don't worry much	2.10	80
14	I let out my anger or desperation by shouting, crying, slamming the doors, etc	2.03	1.02
21	I try to get help and comfort from people who are in a similar situation	2.03	90
18	I look for information in magazines, encyclopedias, or books	1.86	87
23	I withdraw because I can not change anything anyway	1.64	77
20	I try to forget the problem with smoking, alcohol, and drugs	1.34	81
3	I try to get help from institutions (youth consultation centre, psychological consultation centre, etc)	1.13	42

As shown in Table 5 1, items with religion or faith-related contents (items no 6, 11, 16, and 24) have higher Means than other items, meaning that Indonesian adolescents reported that they were more frequently involved in overt or covert *religion- or faith-related activities* when having problems with interpersonal relationships. The activities are asking strength to God, praying, accepting the situation “in the trust in God”, and involvement in religious activities.

The activities which were reported as being rarely done were finding help from institutions, risky behaviours using substances (smoking, alcohol, or drug), withdrawal, and library reading. Among these four infrequent activities, two of them were *active impersonal* behaviours, i.e. reading and institution contacting. Withdrawal behaviours by using

substances (smoking, consuming alcohol, and taking drugs) also had a very low Mean. The table also shows that *aggressive withdrawal* behaviours such as playing loud music (item no. 9) and shouting (item no. 14) were among the items with the highest dispersion (SD=1.08 and SD=1.02, respectively). It means that the variability in frequency in engaging in those behaviours among the respondents were high.

Descriptive analyses on the data per region also found the same results. The top-four and the bottom-three items were the same in all regions when analyzed separately.

3.1.2. Psychometric reports

Principal component analyses were done on overall data and data from each city/regency and each gender separately. The analysis on overall data identified seven factors having an Eigenvalue greater than 1 and explaining 46% of the total variance. However, an inspection of the scree plot showed that additional contribution to the percentage of

Table 5.2: The congruence of Coping factors between each region and total data set, and between each gender and total data

Region	Factors	Congruence Coefficients
Semarang City	Factor 1	0.99
	Factor 2	0.97
	Factor 3	0.97
	Factor 4	0.98
Pekalongan City	Factor 1	0.99
	Factor 2	0.88
	Factor 3	0.86
	Factor 4	0.96
Semarang Regency	Factor 1	0.99
	Factor 2	0.97
	Factor 3	0.97
	Factor 4	0.98
Kudus Regency	Factor 1	0.99
	Factor 2	0.98
	Factor 3	0.98
	Factor 4	0.98
Kebumen Regency	Factor 1	0.99
	Factor 2	0.95
	Factor 3	0.90
	Factor 4	0.96
Pemalang Regency	Factor 1	0.98
	Factor 2	0.96
	Factor 3	0.97
	Factor 4	0.95
All Males	Factor 1	0.99
	Factor 2	0.98
	Factor 3	0.97
	Factor 4	0.98
All Females	Factor 1	0.99
	Factor 2	0.99
	Factor 3	0.98
	Factor 4	0.98

explained variance was minimal after the fifth component, leaving a four factor structure to the coping measure. These four factors explained 32% of the total variance. This result is different from that of the pilot study and the original CASQ which has three components. The four factor result is understandable because there were four new items added to the coping instrument that had religious connotation.

Separate factor analyses on each region and each gender found six to eight factors having Eigenvalues greater than 1. As with the overall data, an inspection of the scree plots showed that the percentage explained variance dropped prominently after the fourth factor. On the basis of these results, further principal component analyses specifying a four factor solution and Varimax rotation were executed on each region each gender separately. Then, congruence analyses were done for each region and each gender with the total analysis as the norm. The results are presented in Table 5.2.

The results of the congruence analyses show that the coping factors of each region were highly congruent with the factors of the total data. Almost all factors had congruence coefficients greater than 0.90, except factor 2 and factor 3 on Pekalongan data, which had factor congruence 0.88 and 0.86, respectively. Because of the high congruence between factors of each region and overall data, and between each gender and all data, further analyses were done using the total data structure. The result of a principal component analysis with Varimax rotation on all the data is presented in Table 5.3.

Table 5.3: Rotated Component Matrix of Coping among Indonesian adolescents

Rotated Component Matrix of Coping Behaviours ^a

ITEMS	Component			
	1	2	3	4
Item 01	.17	.55	-.05	-.11
Item 02	.10	.59	-.06	.10
Item 03	.04	.33	-.08	.07
Item 04	.06	-.02	.62	-.03
Item 05	.30	-.02	.34	.12
Item 06	.61	.12	-.02	.02
Item 07	.05	.55	.12	-.08
Item 08	.00	-.02	.09	.68
Item 09	-.13	.20	.31	.31
Item 10	.11	-.04	-.14	.66
Item 11	.74	.15	.13	-.02
Item 12	.19	.32	.36	-.03
Item 13	.04	.28	.39	.09
Item 14	-.06	.13	.55	-.05
Item 15	.27	-.02	.47	.04
Item 16	.66	.10	.06	.07
Item 17	-.07	.07	.25	.34
Item 18	.09	.36	.13	.13
Item 19	.07	.00	-.02	.55
Item 20	-.20	.06	.10	.23
Item 21	-.10	.38	.37	.07
Item 22	.00	.54	.23	-.09
Item 23	-.05	-.21	.36	.18
Item 24	.76	.13	.03	-.07

Extraction Method: Principal Component Analysis

Rotation Method: Varimax with Kaiser Normalization

^a Rotation converged in 6 iterations

Inspection of items pooled in the four components found that some items had similar factor loadings in more than one component (e.g. items no. 5, 9, 12, and 21). The analysis

also found that many of the items had moderate to high factor loadings. There were also several unique items, namely items no. 1, 2, 4, 6, 7, 8, 10, 11, 14, 16, 19, and 24. Some items, however, had factor loadings less than 0.40, and one item had factor loading less than 0.30. This item concerned trying to forget the problem by drinking alcohol, using drugs, or smoking. All the items, however, were included in the further analyses because the objective of this study was to describe the adolescent situations, and *not* for developing coping instruments.

The four components were interpreted as religious coping, active coping, giving up, and denial. This result is obviously different from the three styles of the original CASQ. This is understandable because the coping measure used in this study included additional items with religious contents. Religious coping is a specific coping strategy found in this Indonesian study, while the other three strategies to some extent reflected the coping styles covered by the Coping Across Situations Questionnaire (CASQ) as developed by Seiffge-Krenke (1995).

3.1.3. Group comparisons

To compare groups of participants on their coping strategies, the *factor scores*, instead of total raw scores, of each strategy were used. MANOVAs were performed with coping strategy scores as dependent variables and region (6), school type (5), school semester (5), and gender (2) as independent variables. The analysis revealed main effects of region, school type, and gender. No main effect for school semester was found. The analysis also found several interaction effects. The results are summarised in Table 5.4. Only factors which had a significant effect on coping are included.

Table 5.4: Summary of Groups comparisons in the Coping strategies

Effects	F	Partial Eta squared	Coping strategies affected
Region	3.82**	0.002	Religious coping, giving-up, denial
School type	3.15**	0.001	Religious coping, giving-up, coping
Gender	33.36**	0.014	All coping strategies (religious, active, giving-up, denial)
Region x School type	1.59**	0.003	Religious coping, giving-up
Region x Semester	1.73**	0.001	Denial
School type x Semester	1.53*	0.002	Active coping, giving-up
School type x Gender	1.68*	0.001	Giving-up
Region x School type x Semester	1.51*	0.002	Giving-up, denial

Notes: *) Significant at 0.05; **) Significant at 0.01

As can be seen in Table 5.4, the estimated effect sizes of the factors were low. The factor for which the estimated effect size on coping strategies was the highest was gender. In addition, there were gender differences on all coping strategies (religious coping, active coping, giving-up, and denial). Females more frequently engaged in religious coping, active coping, and giving-up than males, while males reported more frequent denial.

There were regional differences in the use of religious coping, giving-up, and denial. Regarding religious coping, students in Semarang City reported less frequent religion-related

activities than their counterparts in other regions. Adolescents in Pemalang Regency had the highest score on this coping strategy. Adolescents in Semarang Regency reported more frequent use of the giving-up strategy, while students in Kudus got the lowest score on this type. Adolescents in Pekalongan City reported more frequent denial behaviours, while their counterpart in Kebumen Regency reported the least frequent denial.

Coping strategies were also different among adolescents attending various school types. Students in public schools and Islamic schools reported more frequent religious coping, while adolescents in Catholic and national schools reported less frequent activities associated with religious coping. Students in public and Catholic schools reported more behaviours associated with giving-up. Adolescents attending Protestant schools, on the other hand, reported giving-up behaviours less frequently.

The analysis also revealed some interaction effects among socio-demographic variables. As illustrations, three figures are presented here. Figure 5.1 illustrates the interaction of region by school type on religious coping. The order of region (from Semarang City to Pemalang Regency) was associated with the rank order of maternal mortality ratio (MMR) in 1999, from low MMR in Semarang City to high MMR in Pemalang Regency. The figure indicates that religious coping, such as praying, asking God's help, believing in God's will, and involving in religious activities, was more common among adolescents studying in public schools in the area with high MMR, such as Pemalang, Kebumen, and Kudus than in the regions with lower MMR. Religious coping was also reported as frequently done by students of Islamic schools in Semarang Regency, Kebumen, and Pemalang. The students of Catholic and national schools in Semarang City, Semarang Regency, and Kudus Regency reported less frequent religious coping. Adolescents studying in Protestant schools in Semarang Regency also reported less frequent religious coping, but the students of similar schools in Pekalongan City and Kebumen Regency reported more frequent involvement in religious coping when having interpersonal problems.

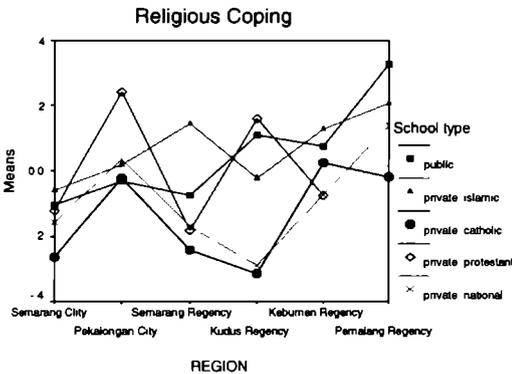


Figure 5.1: Religious coping among adolescents in various types of schools in the six regions

Figure 5.2 illustrates the interaction between school semester and school type on active coping. Some active coping behaviours were 'discussing the problems with other people', 'talking with the person concerned', and 'solving the problems with the help of friends'. Not all semester levels were available in each school type, but comparisons between school types and semester was still possible. As shown in the figure, there was not much difference among students from semesters 3, 4, and 5 of any school type with regard to active coping with interpersonal problems. The most salient difference is seen between

second semester students of Islamic and Catholic schools on one hand and students of public and national schools on the other hand. Students of Islamic and Catholic schools reported more active coping with problems related to interpersonal relationships than students in public and national schools. First semester students in Islamic schools, however, reported less frequent active coping than adolescents attending Catholic and national schools.

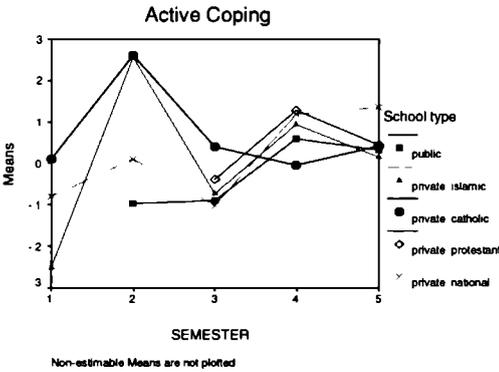


Figure 5.2: Active coping among students in different semesters in various types of schools

Figure 5.3 illustrates the interaction between region and school type regarding giving-up coping strategies. Giving-up includes expecting the worst, negative self-talking, and withdrawal. As shown in the figure, students of Islamic and Catholic schools in Semarang Regency reported more frequent giving-up than their counterparts in other schools and other regions. In contrast, adolescents attending Protestant school in Pekalongan City and students of Islamic schools in Kudus Regency reported less frequent involvement in this coping strategy. There was little difference among students of the other school types in several regions in the use of this coping strategy.

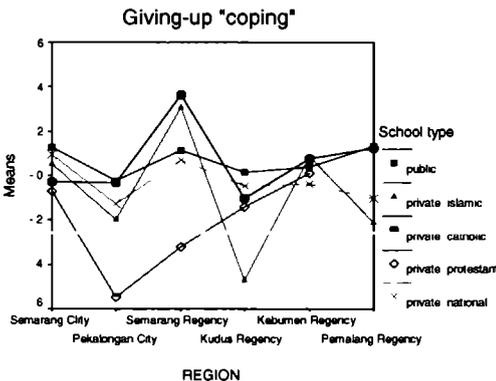


Figure 5.3: Giving-up coping among students of various school types in the six regions

Regarding the interaction between region and school semester on denial of problems with interpersonal relationships, students in the fifth semester in Semarang Regency reported more frequent denial behaviours, such as behaving as if everything was fine and trying not to

think about the problem. The other groups of students did not differ from each other in the use of this coping strategy.

Pearson correlation analyses were also done to determine whether the coping strategies were correlated with age. The analyses revealed that only the active coping strategy was significantly correlated with age, but the correlation was very low ($r=0.02$; $p<0.05$).

3.1.4. Coping with problems in a dyadic situation

In contrast to the large-scale survey which used scales, an assessment of coping with problems in dyadic context used open-ended questions. The questions were whether the participants had had conflict with their romantic partner, parents, and friends related to their dating relationship (*pacaran*), the reasons of the conflict, how they solved the conflict, and what the results were. Hence the questions more specifically examined how conflicts were resolved in dating relationships.

The majority of participants (76% of males and 85% of females) reported that they had had a conflict with their *romantic partner*. Among the participants who did not report any conflict with dating partner were mostly couples who were in the relationship for up to only about three months. Four participants who had been dating for more than one year also did not report any conflict with their romantic partner. Regarding the reasons for conflict, most of the respondents reported that the reason of the conflict was jealousy in one or both of the dating partners. Other reasons for the conflict were differences in opinion, characteristics of the boyfriend or girlfriend (childish, selfish, possessive, etc), misunderstanding, arriving late, and some other reasons.

Regarding the conflict with *parents*, the male and female reports were slightly different. Mostly males had problems with parents because of their own characteristics and behaviours, such as being stubborn, not doing housework, and not studying. These reasons for conflict were not obviously related to their romantic relationship. Other reasons for problems with parents included parents' disagreement with the *pacaran* relationship, coming home late in the evening, schooling, and too much time on the phone. Most females, on the other hand, reported that conflict with parents were usually because of coming home late in the evening and disagreement with their romantic relationship. The main reason for the disagreement was that they were still high school students and they should finish their studies before being involved in a dating relationship. Disobedience, decreasing school grades, differences in opinion, and phone calling were also mentioned by female respondents as the reasons for conflict with parents.

Problems with *friends* usually emerged because they had not much time to meet or to socialize with friends anymore. Another reason for conflict was jealousy, especially when one of their friends approached their boyfriend or girlfriend. Some respondents reported that their friends did not agree with the relationship because of the personal characteristics or conditions of the *pacar* (romantic partner). Dishonesty and betrayal were also reported as the reasons for conflict with friends.

A number of questions probed how they dealt with the conflicts. The answers are listed in Table 5.5, starting from the most frequently reported conflict resolutions.

As shown in the table, there were differences in coping strategies when having conflict with romantic partner and friends on one hand and when having conflict with parents on the other. Actually the difference was more salient than the table presentation implies. The majority of dating couples reported that they talked and discussed with their romantic partner when there were problems between them. They explained and gave the

Table 5.5: Coping with conflicts related to *pacaran* relationship

Conflicts	Coping Strategies
Conflict with Romantic Partner	<ul style="list-style-type: none"> - Talking and discussing about the problems, explaining the reasons of situations - Apologising, saying sorry - Openness, understanding, accepting - Compromising, trying to change behaviours (e.g. not coming late when dating), giving in - Flattering, seducing, comforting - Angry, asking for breaking up - Reminding - Not talking - Self-introspection - Forehead kissing - Sending mail/letter
Conflict with Parents	<ul style="list-style-type: none"> - Changing behaviours (coming home earlier, asking for permission, managing time for studying and going out, not doing the behaviours again, less phone calling, etc.) - Apologising, explaining, giving reasons - Compromising, giving in - Kissing parents' hands - Doing nothing, just letting it go
Conflict with Friends	<ul style="list-style-type: none"> - Talking about the problems, explaining, giving reasons, asking for explanation and confirmation - Managing time for friends and boyfriend/girlfriend - Compromising - Fighting, arguing, not talking with - Doing nothing, just letting it go

reasons for their behaviours or the situations. Several respondents reported that they talked with their partner “in a good way”, or “calmly”. Especially when having conflict with dating partner, the respondents reported often apologising and trying to understand and accept each other. They also compromised and tried to change their behaviours. Male respondents in particular reported that they tried not to come late when having a date with their girlfriend. Anger and talking about breaking up were also reported as ways to deal with their conflict.

When having problem with parents, the young people seemed to prefer to change their behaviours rather than talking about the situations or problems. These behaviours might be related to the fact that the young people had less power compared to their parents. Some respondents, however, reported that they talked to their parents when having problems, apologised, and gave explanations. They also compromised with their parents. The “submissive” position of young people was also salient in kissing their parents hands and doing nothing when they had conflict with their parents.

Similar to the ways of coping when having problems with romantic partner, most of the respondents also talked, discussed, and explained or asked for explanations when having problems with their friends related to their romantic relationship. Because many of the problems with friends involved spending less time than expected with the friends, one of the conflict resolutions was managing time and activities for friends and girlfriend. The time and activity management included sparing time for friends, and going out with friends and romantic partner at the same time. Two male and one female respondent reported that they

would fight and argue when having problems with friends. This kind of problem solving occurred when jealousy was the result of a friend approaching the girlfriend or boyfriend.

Most of the efforts at problem solving were reported as bringing about desirable results such as “good”, “fine”, “problems solved”, “understanding each other”, “being excused”, “accepted”, “not angry anymore”, “we are still dating”, and “we are still friends”. Other positive results were desired behaviour changes of boyfriend or girlfriend, although the changes were not always permanent, such as not acting childish anymore and not coming late when having a date. However, the results of the conflict management were not always desirable, especially when related to problems with parents. Some respondents reported that the results were not always the same for the same efforts to similar problems. Other undesirable effects also included “no effect”, “no changes”, “parents are still angry”, and “indifferent”. Participants who fought or argued as a way to solve conflicts with friends reported no results or loss of friendship.

It is clear from these results that the ways in which the adolescents dealt with conflict was influenced by the people with whom they had problems. Conflict with romantic partner or friends, who were at the same level of power, was resolved with rational conflict resolution, such as discussion and explanation. This kind of problem solving might also appear egalitarian although it was not always reported *how* they talked with their partner or friends. Aggressive coping such as being angry, fighting, and arguing was also used in dealing with partner and friends. In contrast, when having problems with parents, changing behaviours seemed to be the primary alternative for young people to deal with the problems. Examples of the behaviour changes (as ways of dealing with problems) are coming home earlier, and not repeating the behaviours generating the problems. It was, however, also found that young people also engaged in rational problem solving such as talking with parents and explaining the reasons. This rational and egalitarian conflict resolution seemed independent of the parties with whom young people had conflicts. It was also found that aggressive conflict resolution had negative results, such as continued anger and loss of friendship.

3.2. Results of the Self-efficacy study

3.2.1. Descriptive reports

A summary of the analyses of the two self-efficacy measures will be presented separately. The results of the descriptive analysis of the *in-school* data (interpersonal self-efficacy) is presented Table 5.6.

As shown in Table 5.6, *in-school* students reported that they found it easier to be involved in behaviours in the friendships context, such as telling their opinion, initiating a friendship, and maintaining a friendship. These behaviours have mean values greater than 5 on the 7-point scale. In contrast, the students found it difficult to be engaged in behaviours containing risks, such as proposing behaviours having interpersonal risks and terminating a friendship or relationship. The self-efficacy in managing an ongoing relationship fell between these extremes. Analyses on the data for each region and each gender separately revealed results which were similar to that of the total data.

Table 5.6: Mean and Standard Deviation of each Self-efficacy item among *in-school* students (sorted from the highest to the lowest Means)

Item No.	Item Formulation	N	Mean	SD
2.	Telling my opinion to a friend	10464	5.2	1.4
5.	Initiating a friendship	10448	5.2	1.5
6.	Maintaining a friendship	10416	5.2	1.6
3.	Telling different opinion to a friend	10393	4.8	1.5
1.	Saying hello to a newly known person	10473	4.7	1.7
14.	Maintaining a good relationship with romantic partner	10315	4.6	1.8
17.	Refusing partner's proposal to be involved in risky behaviours	10418	4.5	2.2
4.	Telling my feeling to a friend	10452	4.4	1.7
15.	Telling a different opinion to romantic partner	10392	4.3	1.6
18.	Trying to make my romantic partner not feel irritated	10432	4.3	1.8
9.	Approaching a person whom I like	10434	4.1	1.8
8.	Getting attention from a person whom I like	10416	4.0	1.7
13.	Telling my feelings to dating/romantic partner (<i>pacar</i>)	10384	4.0	2.0
12.	Refusing a dating (<i>pacaran</i>) proposal	10395	3.9	1.8
11.	Accepting a dating (<i>pacaran</i>) proposal	10418	3.8	1.8
10.	Proposing a dating relationship (<i>pacaran</i>)	10420	3.4	1.9
19.	Terminating a romantic relationship	10428	3.0	2.0
7.	Leaving an old friend and finding a new friend	10427	2.5	1.7
16.	Asking my romantic partner to be involved in risky behaviours	10398	2.4	1.8

The descriptive analysis of the *out-school* student data (intimate self-efficacy) is presented in Table 5.7. The analysis revealed that the self-efficacy in refusing to be involved intimate sexual behaviours was high, as indicated by the high Mean scores of those items. The intimate behaviours were genital fondling, intercourse, and kissing. In contrast, proposing and agreeing to be involved in such behaviours were perceived as difficult to do, meaning that the self-efficacy in conducting these behaviours was low.

Table 5.7: Mean and Standard Deviation of each Self-efficacy item among *out-school* students (sorted from the highest to the lowest Means)

Item No.	Item Formulation	N	Mean	SD
14.	Refusing to partner/friend to rub sexual organ	217	5.1	2.4
17.	Refusing a proposal for intercourse	219	5.1	2.4
11.	Refusing partner's/friend's proposal for kissing	219	4.2	2.3
1.	Getting attention from a person whom I like	219	4.1	1.1
7.	Maintaining a good relationship with romantic partner	218	4.1	2.0
8.	Telling a different opinion to romantic partner	218	4.1	1.9
18.	Trying to make my romantic partner not feel irritated	219	4.1	2.0
2.	Approaching a person whom I like	219	4.0	1.8
5.	Refusing a dating (<i>pacaran</i>) proposal	215	3.9	1.9
4.	Accepting a dating (<i>pacaran</i>) proposal	218	3.6	1.9
6.	Telling my feelings to dating/romantic partner (<i>pacar</i>)	218	3.6	2.2
19.	Terminating a romantic relationship	219	3.1	2.0
3.	Proposing a dating relationship (<i>pacaran</i>)	218	3.0	1.9
10.	Agreeing partner's/friend's proposal for kissing	217	2.9	2.1
9.	Proposing a kissing to partner/friend	218	2.6	1.9
13.	Agreeing with partner/friend to rub sexual organ	219	1.8	1.7
16.	Agreeing a proposal for intercourse	219	1.8	1.7
15.	Proposing to partner/friend for intercourse	218	1.6	1.4
12.	Asking partner/friend to rub sexual organ	219	1.5	1.2

3.2.2. Psychometric reports

A factor analysis on the pilot study data identified three factors pertaining to self-efficacy in developing interpersonal relationships. The factors were friendship efficacy, romantic efficacy, and risk taking efficacy. Factor analysis on the data from the main survey also found the same three factors of interpersonal self-efficacy. The three factors explained 41% of the total variance. The results of the factor analysis with Varimax rotation on in-school data is presented in Table 5.8. An inspection of the factor loadings suggested an interpretation of the factors as reflecting romantic or intimacy efficacy, friendship efficacy, and risk taking efficacy. The romantic or intimacy efficacy included getting attention from a likeable person, starting a romantic or intimate relationship, and managing an ongoing romantic or intimate relationship. The friendship efficacy comprised starting and maintaining friendship, and refusing an involvement in risky behaviours. The risk taking efficacy referred to perceived efficacy in doing behaviours which may have negative interpersonal consequences such as having no friend and being refused by a friend. This risk taking efficacy consisted of terminating a relationship, refusal behaviours, and invitation to be involved in risky behaviours.

Table 5.8: Rotated component matrix of interpersonal self-efficacy among *in-school* adolescents

Rotated Component Matrix of Self-efficacy (in-school data)

	Component		
	1	2	3
(01) saying hello to a newly known person	.18	.57	.06
(02) telling my opinion to a friend	.09	.74	-.01
(03) telling a different opinion to a friend	.07	.69	.06
(04) telling my feelings to a friend	.32	.48	.09
(05) initiating a friendship	.24	.61	-.09
(06) maintaining a friendship	.33	.46	-.21
(07) leaving an old friend and finding a new friend	.19	-.11	.65
(08) getting attention from a person whom I like	.62	.14	.21
(09) approaching a person whom I like	.71	.16	.15
(10) proposing a dating relationship (pacaran)	.74	-.01	.19
(11) accepting a dating (pacaran) proposal	.63	-.04	.09
(12) refusing a dating (pacaran) proposal	-.02	.28	.44
(13) telling my feelings to dating/romantic partner (pacar)	.69	.14	.06
(14) maintaining a good relationship with romantic partner	.65	.24	-.18
(15) telling a different opinion to romantic partner	.46	.29	.03
(16) asking my romantic partner to be involved in risky behaviours	.22	-.07	.56
(17) refusing partner's proposal to be involved in risky behaviours	-.03	.31	.05
(18) trying to make my romantic partner not feel irritated	.43	.28	-.04
(19) terminating a romantic relationship	-.03	.09	.68

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

Factor analysis on the *out-school* data revealed a similar structure (see Table 5.9). The analysis revealed three factors which explained 50% of the total variance. The three factors were interpreted as courtship efficacy, romantic or intimacy efficacy, and refusal efficacy. Courtship efficacy covered proposing and agreeing to be involved in kissing, genital fondling, and intercourse. Romantic or intimacy efficacy included starting and managing a romantic or intimate relationship. Refusal efficacy included refusing a dating proposal, kissing, genital fondling, intercourse, and terminating a romantic relationship. The romantic or intimate efficacy was the same as romantic or intimacy efficacy in the *in-school* measure.

Table 5.9: Rotated component matrix of intimate interpersonal self-efficacy among *out-school* adolescents

Rotated Component Matrix of Intepersonal Self-efficacy (out-school datâ)

	Component		
	1	2	3
(1) Getting attention from a person whom i like	12	.72	.02
(2) Approaching a person whom i like	04	.76	- .15
(3) Proposing a dating (pacaran)	27	.61	-.33
(4) Accepting a dating (pacaran) proposal	.34	.43	- .16
(5) Refusing a dating (pacaran) proposal	12	- .05	.53
(6) Telling my feelings to dating/romantic partner (pacar)	.32	.52	- .03
(7) Maintaining a good relationship with romantic partner	12	.69	.19
(8) Telling a different opinion to romantic partner	- .08	.50	.07
(9) Proposing a kissing to partner/friend	.60	.46	- .22
(10) Agreeing partner's/friend's proposal for kissing	.66	.39	- .15
(11) Refusing partner's/friend's proposal for kissing	- .21	- .04	.75
(12) Asking partner/friend to rub sexual organ	.79	.09	.07
(13) Agreeing with partner/friend to rub sexual organ	.82	.06	- .06
(14) Refusing to partner/friend to rub sexual organ	- .18	.12	.77
(15) Proposing to partner/friend for intercourse	.71	.14	- .11
(16) Agreeing a proposal for intercourse	.66	.11	- .08
(17) Refusing a proposal for intercourse	- .25	.11	.75
(18) Trying to make my partner not feel irritated	.18	.53	.32
(19) Terminating a romantic relationship	.29	- .12	.31

Extraction Method Principal Component Analysis
 Rotation Method Varimax with Kaiser Normalization
 a. Rotation converged in 6 iterations

3.2.3. Group comparisons

Comparisons among students based on socio-demographic background were also performed. MANOVAs were done on the *factors scores* of the self-efficacy as dependent variables and with Region (6), School type (5), School semester (5), and Gender (2) as independent variables. The results are summarised in Table 5.10. Only the significant results are presented.

The MANOVA found main effects of region, school type, school semester, and gender on interpersonal self-efficacy of Central Java adolescents. The estimated effect size (Partial Eta squared) of the effects, however, were small (from 0.001 to 0.010). Among the adolescents living in the six regions, students in Semarang City had the highest scores on the romantic and friendship efficacy factors, meaning that they perceived themselves as capable of enacting behaviours for developing friendships and romantic or intimate relationship. In the risk taking dimension, however, the same group of students had the lowest self-efficacy. Students in Kebumen Regency and Pekalongan City were among the groups of students who perceived themselves as not so capable in developing friendship and intimate relationship, but, together with students in Semarang Regency, they felt very capable in being involved in interpersonally risky behaviours such as terminating a relationship.

Table 5.10: Summary of Group comparisons on interpersonal self-efficacy (*in-school* students)

Effects	F	Partial Eta squared	Self-efficacy affected
Region	5.93**	0.003	Romantic efficacy, friendship efficacy, risk taking efficacy
School type	8.00**	0.003	Romantic efficacy, friendship efficacy, risk taking efficacy
Semester	2.72**	0.001	Friendship efficacy, risk taking efficacy
Gender	32.79**	0.010	Romantic efficacy, friendship efficacy, risk taking efficacy
Region x School type	2.52**	0.005	Romantic efficacy, friendship efficacy, risk taking efficacy
Region x Semester	1.99**	0.001	Romantic efficacy, friendship efficacy, risk taking efficacy
School type x Semester	2.64**	0.003	Romantic efficacy, friendship efficacy, risk taking efficacy
School type x Gender	1.94*	0.001	Risk taking efficacy
Region x School type x Semester	2.62**	0.002	Romantic efficacy, friendship efficacy, risk taking efficacy
Region x School type x Semester x Gender	1.57*	0.002	Risk taking efficacy

Notes: *) Significant at 0.05, **) Significant at 0.01

National school students had high self-efficacy in romantic or intimate relationship and in taking risks of relationships, but they felt less capable of developing friendships. For all three factors of interpersonal self-efficacy, the students of public schools perceived themselves as having low self-efficacy, especially in relation to romantic or intimate relationships. The students of Protestant schools had the highest score on romantic efficacy, but had low scores in friendship efficacy and risk taking efficacy. The students of Islamic schools had high risk-taking efficacy, and the students of Catholic schools had the highest score in friendship efficacy. It is necessary to note, however, that although multivariate analysis found a significant difference in friendship efficacy, pairwise comparison with Tukey HSD found no significant differences between regions in that dimension.

School semester showed significant effects only on friendship efficacy and risk-taking efficacy. The students of the first year (semester 1 and 2) had higher mean scores on those factors than the students in other semesters. This means that students in the lower semesters perceived themselves as more capable of developing friendships and taking risks in interpersonal relationships. Gender showed an effect on all three factors of interpersonal self-efficacy. Males had higher romantic or intimate efficacy and risk-taking efficacy than did females, while females had higher friendship efficacy than their male counterparts.

The MANOVA also found some significant interaction effects between the socio-demographic variables on the three dimensions of self-efficacy. The effect sizes, however, were also small. Figures 5.4, 5.5 and 5.6 illustrate the interaction effects of region by school type on the three dimensions of interpersonal self-efficacy. The arrangement of the regions from Semarang City to Pemalang Regency was in line with the rank of maternal mortality ration (MMR) 1999 of the Central Java Province. Among the six regions, Semarang City

was had the lowest MMR (smallest number of maternal death), while Pemalang Regency had the highest MMR.

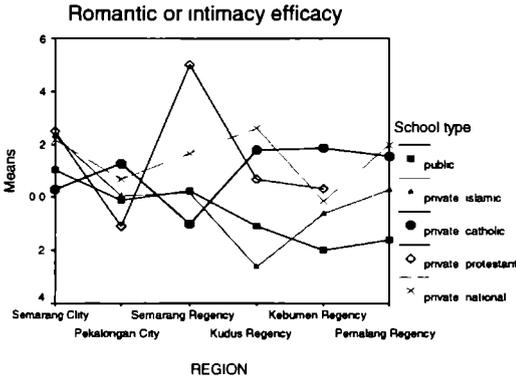


Figure 5.4: Romantic or intimacy efficacy according to Region and School type

Figure 5.4 shows that there little difference in the romantic or intimacy efficacy among students of various school types in Semarang City and Pekalongan City. A salient difference was found among students in Semarang Regency, in which the students of Protestant schools perceived themselves as very capable of developing intimate relationships, while the students of public, Islamic, and Catholic schools perceived themselves as not very capable to do so. The students of Islamic schools in Kudus had the lowest romantic or intimacy efficacy compared the other groups of students in the same areas and the other areas. It is interesting that students of public schools in the areas with low MMR tended to have higher romantic efficacy than students of public schools in high MMR areas.

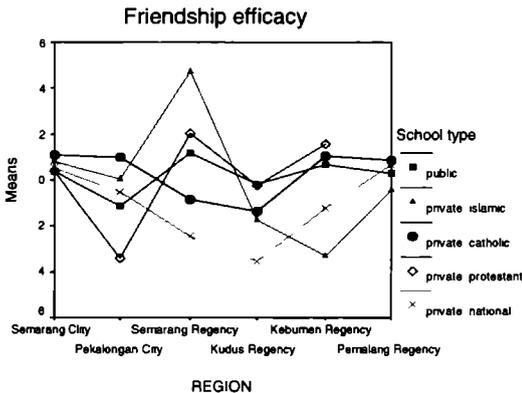


Figure 5.5: Friendship efficacy according to Region and School type

Figure 5.5 shows that students from all types of schools in Semarang City and Pemalang Regency did not differ much on friendship efficacy. The students of Islamic schools across regions perceived themselves differently. In Semarang Regency, the students

of this school type had the highest friendship efficacy among all students, while their counterparts in Kebumen Regency were among the groups of students which had the lowest friendship efficacy. The other groups of students which had the lowest friendship efficacy were the students of Protestant school in Pekalongan City and students of national school in Kudus. The students in public and Catholic schools in each region did not differ from each other in their friendship efficacy.

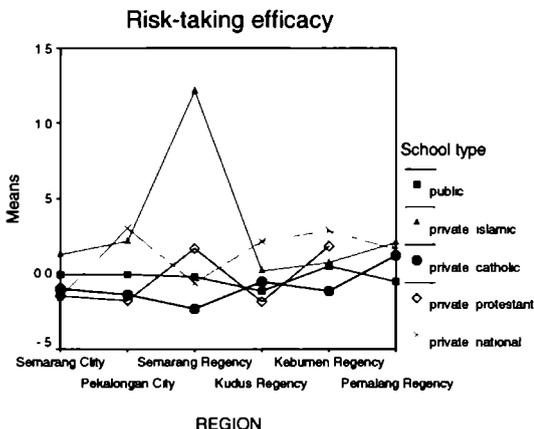


Figure 5.6: Risk-taking efficacy according to Region and School type

Figure 5.6 shows that the only salient difference in risk-taking efficacy was found among the students of Islamic schools Semarang Regency. These students had a much higher risk-taking efficacy compared to the other students in the same and different areas. This means that the students of Islamic schools in Semarang Regency perceived themselves as much more capable of terminating relationships, refusing *pacaran* proposal, and proposing an involvement in risky behaviours than the other students.

Interpersonal relationships might be related to individual development and age. To test this hypothesis, correlation analyses were done on the interpersonal self-efficacy factor scores and age. Pearson correlation analyses found that friendship efficacy was not correlated with age. Romantic or intimate efficacy and risk-taking efficacy were related with age, but the correlation coefficients were very low, with $r=0.10$ and $r=0.05$ (both were significant at 0.01) for romantic efficacy and risk-taking efficacy, respectively.

Group comparisons were also done on the data from *out-school* students. A multivariate analysis of variance (MANOVA) was performed on the intimate self-efficacy factor scores (courtship efficacy, romantic efficacy, and refusal efficacy) as dependent variables with Region (6), Religious affiliation (4), Gender (2), and Age (7) as the independent variables. The religions included were Islamic, Catholic, Protestant, and Buddhism. The ages of the participants were 14 to 20 years old. The analysis found only main effects of region and gender on intimate self-efficacy (see Table 5.11). No interaction effects were found. Only the significant results are shown in Table 5.11.

Table 5 11 Summary of Group comparisons in the intimate self-efficacy (*out-school* students)

Effects	F	Partial Eta squared	Self-efficacy differed
Region	2.47**	0.108	Romantic efficacy
Gender	3.14*	0.085	Refusal efficacy

Notes *) Significant at 0.05, **) Significant at 0.01

Pairwise comparisons revealed that students in Pekalongan City had much lower romantic efficacy than the students in the other areas. The out-school students of the other five areas were not different from each other on romantic efficacy. This means that adolescents in Pekalongan City found it difficult to be involved in a romantic relationship, such as proposing a *pacaran* relationship and maintaining the relationship. Regarding gender difference in refusal efficacy, females reported much higher refusal efficacy than their male counterparts, meaning that females felt easier to refuse a romantic relationship and to refuse involvement in sexual behaviours.

3.3 Results concerning Self-concept

3.3.1 Psychometric reports

Different from the reports on coping and self-efficacy which started with descriptive reports, the descriptive analysis per item of self-concept will not be reported. The instrument had 52 items, 13 of them were negatively worded. Hence descriptive reports for each item would be inefficient.

An exploratory factor analysis on the self-concept scale (SCSS) found 11 factors with Eigenvalue greater than 1, explaining 51% of the total variance. An inspection of the scree plot suggested that seven factors should be retained for interpreting the SCSS. The seven factors explained 42% of the total variance. A follow-up factor analysis specifying a seven-factor extraction with Varimax rotation then was done. The seven factors were interpreted as physical and general self-worth, academic-verbal and general, relations with peers (same-sex and opposite-sex), relations with parents and religious morality, emotional stability, academic-math, and negative self-thoughts. The results of the factor analysis were different from the SDQ III which has a 13-factor structure. A possible explanation for this difference is that the SCSS had only four items for each dimension, while the SDQ III has ten to 12 items in each dimension. The distribution of items over factors and the factor loadings is presented in Table 5.12.

Table 5.12: Item distribution over factors and the factor loading of SCSS

Rotated Component Matrix of Self-Concept Short Scale (SCSS)

ITEMS	Component						
	1	2	3	4	5	6	7
SCSS_01	.03	.03	-.06	.10	.08	.77	.05
SCSS_02	.17	.62	.10	.06	.06	-.02	.00
SCSS_03	.11	.58	.01	.15	-.04	.39	-.03
SCSS_04	.04	.00	-.02	.06	-.07	.03	.42
SCSS_05	.63	.07	.07	.04	.15	.03	-.06
SCSS_06	.54	.33	.18	.13	-.01	.06	-.02
SCSS_07	.23	.14	.67	.12	.10	.02	.01
SCSS_08	.11	.02	-.55	.03	.02	.03	.32
SCSS_09	.10	-.05	.09	.69	-.01	.06	.07
SCSS_10	.10	.26	-.08	.62	.28	.07	-.06
SCSS_11	.17	.25	-.05	.45	.39	.04	.00
SCSS_12	-.04	.11	-.03	.19	-.07	-.05	.49
SCSS_13	.41	.45	.06	.02	.13	.23	.01
SCSS_14	.14	.16	-.03	.04	.08	.78	.05
SCSS_15	.18	.57	.17	-.02	.13	-.08	.02
SCSS_16	.15	-.32	-.05	-.14	.13	-.29	.37
SCSS_17	.38	.40	.24	-.06	.23	.08	-.01
SCSS_18	.71	.04	.04	-.02	.20	.02	-.04
SCSS_19	.69	.22	.11	.12	.07	.04	-.04
SCSS_20	.03	.02	-.56	-.06	-.02	.02	.28
SCSS_21	.12	.18	.64	-.01	.08	.02	.02
SCSS_22	.01	.11	.10	.48	.03	.10	.04
SCSS_23	.03	.22	-.04	.59	.33	.02	.02
SCSS_24	.10	.09	.17	-.33	-.18	-.06	.31
SCSS_25	.19	.04	.09	.01	.53	.08	-.05
SCSS_26	.33	.34	.15	.12	.14	.09	.04

Extraction Method Principal Component Analysis
 Rotation Method Vanmax with Kaiser Normalization
 a. Rotation converged in 7 iterations

Rotated Component Matrix of Self-Concept Short Scale (SCSS)

ITEMS	Component						
	1	2	3	4	5	6	7
SCSS_27	.09	.08	.00	.10	.13	.67	.12
SCSS_28	.06	-.08	-.10	.05	-.03	.12	.51
SCSS_29	.15	.54	-.01	.12	.08	.37	-.02
SCSS_30	.24	.29	.16	.00	.42	.12	-.08
SCSS_31	.60	.16	.06	.00	.29	.06	-.04
SCSS_32	-.23	-.03	-.06	-.10	.16	.04	.46
SCSS_33	.12	-.01	.22	.26	.13	-.03	.18
SCSS_34	.12	.17	.53	-.09	.04	.02	.12
SCSS_35	.12	-.04	.16	.64	-.03	.05	.12
SCSS_36	.13	-.13	.15	-.23	-.10	-.06	.43
SCSS_37	.11	.27	.16	.17	.42	.00	.03
SCSS_38	.14	.00	.03	.10	.59	.05	.01
SCSS_39	.30	.15	.22	.17	.31	.07	.06
SCSS_40	.07	.15	-.09	-.06	-.03	-.59	.27
SCSS_41	.17	.70	.12	.03	.11	-.13	-.01
SCSS_42	.08	.34	.16	.13	.28	.26	-.04
SCSS_43	.11	.23	.14	-.03	.39	.27	-.05
SCSS_44	-.26	.11	.02	.04	-.09	-.05	.48
SCSS_45	.55	.14	.11	.13	.07	.01	.00
SCSS_46	.17	.06	.69	.20	.19	.01	.06
SCSS_47	.14	.11	.76	.07	.14	.01	.03
SCSS_48	-.01	.15	-.07	-.51	.08	-.07	.23
SCSS_49	.04	.24	-.13	.55	.38	.05	-.07
SCSS_50	.06	.14	.12	.32	.57	-.01	.01
SCSS_51	.09	-.04	.06	.05	.61	.04	-.03
SCSS_52	-.21	-.09	-.02	-.12	.22	-.05	.42

Extraction Method Principal Component Analysis
 Rotation Method Vanmax with Kaiser Normalization
 a. Rotation converged in 7 iterations

It can be seen that several items had similar factor loadings on more than one factor, for examples items 11, 13, 16, 17, 26, 33, 39, and 42. Item 33 (about having many same-sex friends) had low loadings (between 0.01 and 0.26) on all factors. Nevertheless all the items were included in the next analysis since the objective of this study was to describe self-concept of adolescents in Central Java. To take into account of all the factor loadings, *factor scores* were used in the next analyses on the self concept (SCSS).

3.3.2. Group comparisons

Multivariate analyses of variance were performed with the seven dimensions of self-concept as dependent variables and Region (6), School type (5), School semester (5), and Gender (2) as independent variables. Pairwise comparisons using Tukey HSD were performed on significant effects. A summary of only the significant results is presented in Table 5.13.

Table 5 13 Summary of group comparisons in the self-concept among Central Java adolescents

Effects	F	Partial Eta squared	Self-concept differed
Region	8.67**	0.007	Physical and general, academic-verbal and general, peer relations, parents relations and religious morality, academic-math, and negative self-thoughts
School type	3.03**	0.002	Academic-verbal and general, peer relations, parents relations and religious morality, emotional stability, and negative self-thoughts
Semester	2.08**	0.002	Academic-math
Gender	34.29**	0.026	Physical and general self-worth, academic-verbal and general, parents relations and religious morality, emotional stability,
Region x School type	2.70**	0.006	Physical and general self-worth, academic-verbal and general, peer relations, emotional stability, and academic-math
Region x Gender	1.62*	0.001	Academic-verbal and general, peer relations, and academic-math
School type x Semester	2.16**	0.003	Peer relations, emotional stability, and academic-math
School type x Gender	1.50*	0.001	Physical and general self-worth, and emotional stability
Region x School type x Semester	2.31**	0.003	Academic-verbal and general, peer relations, parents relations and religious morality, and academic-math
School type x Semester x Gender	1.55**	0.002	Academic-verbal and general, peer relations, and negative self-thoughts

Notes *) Significant at 0.05, **) Significant at 0.01

The MANOVA revealed significant effects of the socio demographic variables on several of the self-concept factors. Main effects of region were found on six of seven factors of the self-concept. There was no difference in emotional stability concept among students in the six regions. Main effects of school type were found on five factors, self-concept in physical and general self-worth and in academic-math were not different among students studying at various school types. Semester showed a significant effect only on academic-math self-concept. Main effects of gender were found on four factors, namely physical and general self-worth, academic-verbal and general, relations with parents and religious morality, and emotional stability.

Concerning the gender differences in the self-concept, females had higher scores in academic and social self-concept, which included academic-verbal and general, relations with peers, and relations with parents and religiosity. Males, on the other hand, had higher

scores on personal characteristics, such as physical and general self-worth, and emotional stability. Higher scores mean a more favourable concept of self. Post hoc analysis of the semester effect on academic-math self-concept found that first semester students had more favourable self-concept related to Math. The students of fourth and fifth semester had the least favourable self-concept in Math.

Post hoc analyses on the effect of region and school type on the seven dimensions of self-concept found no clear patterns. The students in Semarang City tended to be high in physical general, and peer relations self-concept, but low in parents relations and negative self-concept. Adolescents in Pekalongan City had more favourable self-concept in academic-verbal and general, but less favourable in academic-math self-concept. The students in Semarang Regency had high scores in physical and general, and peer relations, but had low scores in academic-verbal and general, and academic-math. Respondents in Kudus reported more favourable self-concept in parents relations and religious morality, and less favourable in negative and physical self-concept. The students in Kebumen had high scores in academic-math, but also in negative self-concept. The adolescents in Pernalang had high self-concept in relations with parents and religious morality, academic-math, and negative self-worth, but low in academic-verbal and general and peer relations self-concept.

The school effects were also not clear. Public school students had a high score on negative self-thought and a low score on peer relations. The students of Islamic schools were more favourable in their self-concept in academic-verbal and general, parents relation and religious morality, and emotional stability, but less favourable in peer relations self-concept. The adolescents studying in Catholic schools showed a tendency that was in contrast with the reports of Islamic school students. The students in Catholic schools reported high self-concept in peer relations, but low self-concept in academic-verbal and general, parents relations and religious morality, and emotional stability. The students of Protestant schools had high scores in academic-verbal and general, and peer relations, but low scores in negative self-thoughts. The national school students reported high self-concept in negative self-worth, and low self-concept in academic-verbal and general.

As summarised in Table 5.13, there were interaction effects among the socio-demographic variables (region, school type, semester, and gender) on the self-concept factors. Figures 5.7 and 5.8 illustrate the interaction of region and school type on physical and general self-worth and the interaction effect of school semester and school type on relations with peers self-concept, respectively.

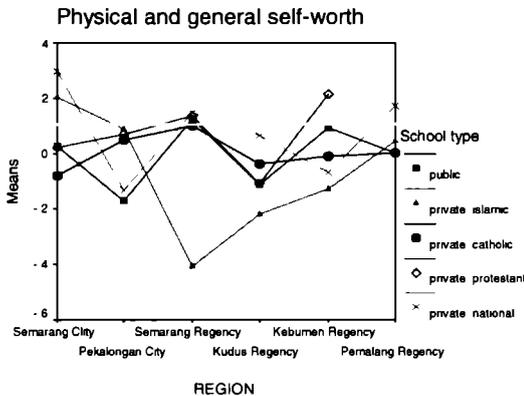


Figure 5.7: Interaction effect of region and school type on the self-concept in physical and general self-worth

Figure 5.7 shows that the self-concept in physical and general self-worth among the students of public schools and Catholic schools differed little across regions. The differences in physical and general self-worth among students of Protestant and national schools across regions were greater than those of the students of public and Catholic schools. Among students of Islamic schools, the difference across regions was more apparent. For example, in Semarang City the students of Islamic schools had more favourable physical and general self-concept than the students of public, Catholic, and Protestant schools, but the Islamic school students in Semarang Regency, Kudus, and Kebumen had lower self-concept than their counterparts studying in other types of schools.

As illustrated in Figure 5.8, first year (first and second semester) students of Islamic schools had (much) higher peer self-concept compared to adolescents studying in other types of schools, and compared to the students of Islamic schools in higher semesters. Interestingly, the fifth semester students of Islamic schools had the lowest score among fifth semester students in peer self-concept, which included same-sex and opposite-sex relations. The students of Catholic and Protestant schools seemed not much different from each other across semesters. Third semester students of public, Islamic, and national schools had lower peer self-concept than students of Protestant schools, but the fourth semester students of the three school types had higher peer self-concept than the Protestant school students.

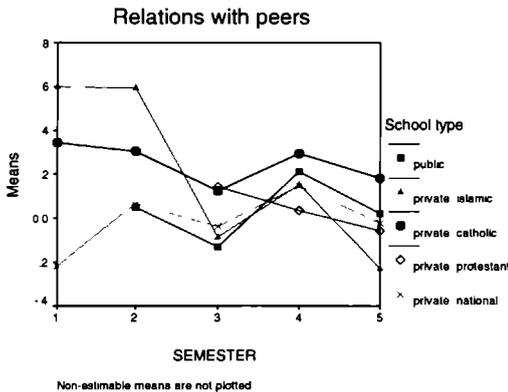


Figure 5.8: Interaction effect of school semester and school type on the self-concept in relations with peers

3.4. Correlations among personal resources

Pearson correlation analyses were performed on the scores of the various personal resources factors. There were four coping strategies (religious, active, giving-up, and denial), three factors of interpersonal self-efficacy (romantic, friendship, and risk-taking), and seven factors of self-concept (physical and general self worth, academic-verbal and general, peer relations, parents relations and religious morality, emotional stability, academic-math, and negative self-concept). The intimate interpersonal self-efficacy of *out-school* students was not included in this correlation analysis because the respondents of the out-school data collection were different from the respondents of in-school data collection.

The results of the correlation analysis are presented in Table 5.14. The correlations between strategies or dimensions within a personal resource are not reported because the correlations between factor scores are zero. Almost all of the correlations were significant although the correlations were very low. This significance was due to the large number of respondents (N between 8333 and 8914). However, the low correlations between the personal resources may indicate that the personal resources are psychological constructs which are relatively independent from each other. Only some of the salient correlations will be discussed.

Religious coping (Cop1) was correlated with self-concept in parents relations and religious morality (SC4), and self-concept in emotional stability (SC5). It is understandable that religious coping is correlated with self-concept in religious value, as both have religion-related contents. The correlation between religious coping and self-concept in emotional stability cannot directly be explained on the basis of the item contents. Apparently, an adolescent with high religiosity may have a tendency to be emotionally stable and to be involved in religion-related activities.

Other salient correlations were the correlations between active coping (Cop2) and friendship efficacy (SE2) and between active coping and self-concept in peer relations (SC3). An active coping strategy included discussing the problem with other persons and getting helps from friends. Availability of friends, which was related with the efficacy to make friendship, played important roles in this situation. Past successful experiences in contacting others when having problems might increase the adolescent beliefs that he or she was capable of relating with their peers and developing friendship.

Table 5.14: Correlation matrix of personal resources for interpersonal relationships

Variables	Cop1	Cop2	Cop3	Cop4	SE1	SE2	SE3
SE1	-0.06	0.15	-0.03	0.07	-	-	-
SE2	0.10	0.23	<i>0.01</i>	0.03	-	-	-
SE3	-0.12	-0.06	-0.03	0.08	-	-	-
SC1	-0.08	0.05	-0.04	0.11	0.26	0.07	0.09
SC2	0.12	0.15	0.06	<i>0.02</i>	0.12	0.18	<i>0.02</i>
SC3	-0.06	0.28	0.10	0.04	0.24	0.34	-0.08
SC4	0.33	0.11	-0.17	-0.14	-0.03	0.10	-0.11
SC5	0.21	0.03	-0.12	0.14	0.08	0.21	-0.03
SC6	0.07	0.04	-0.11	<i>-0.02</i>	<i>-0.02</i>	0.06	<i>-0.01</i>
SC7	<i>-0.01</i>	<i>-0.02</i>	0.26	0.05	-0.07	<i>0.00</i>	0.07

¹⁾ Cop1 Religious coping, Cop2 Active coping, Cop3 Giving-up, Cop4 Denial, SE1 Romantic efficacy, SE2 Friendship efficacy, SE3 Termination efficacy, SC1 Physical and general self-concept, SC2 Academic verbal and general self-concept, SC3 Peer relations self-concept, SC4 Parents relations and religious morality self-concept, SC5 Emotional stability self-concept, SC6 Academic-math self-concept, SC7 Negative self-concept

²⁾ Correlation >0.02 significant at 0.05, Correlation >0.03 significant at 0.01

³⁾ Non-significant correlations are printed in *italic*

Giving-up coping (Cop3) was correlated with negative self-thought (SC7). The negative self-concept consisted of negative statements, such as easily worried, having difficulties in organising ideas, and having many weaknesses. The giving-up reactions when having problems included expecting the worst, withdrawal, and negative self-talk. The similarity of contents of the two factors might contribute to the correlation. Also, both

negative self-thought and giving-up could be depressive symptoms of the persons. Hence, students who had negative self-concept were also giving-up when having interpersonal problems.

Romantic efficacy (SE1) was correlated with physical and general self-concept (SC1), and also with self-concept in peer relations (SC3). This means that students who perceived themselves as capable of developing intimate or romantic relationships also had a positive view of self in terms of physical and general personal characteristics, and in terms of relationships with peers. There was also a correlation between friendship efficacy (SE2) and peer relations self-concept (SC3). The more an adolescent viewed him/herself as having many friends, the more he or she felt it easier to develop friendships.

4. Summary and Discussion

This chapter examined adolescents' personal resources for interpersonal relationships. The personal resources were coping, self-efficacy, and self-concept. Coping with interpersonal problems consisted of religious coping, active coping, giving-up, and denial. *Interpersonal* self-efficacy comprised romantic efficacy, friendship efficacy, and risk-taking efficacy. *Intimate* self-efficacy had also three dimensions, namely courtship efficacy, romantic efficacy, and refusal efficacy. Seven dimensions were found in adolescent self-concept, i.e. physical and general self, academic-verbal and general, relations with peers (same-sex and opposite sex), parents relation and religious morality, emotional stability, academic-math, and negative self-thoughts. Several interesting findings are summarised and discussed here.

4.1. Shared socio-demographic effects

The effects of socio-demographic conditions on the sexual situations of Central Java adolescents reported in Chapter 3, were also found with the personal resources. Several main effects and interaction effects of region, school type, school semester, and gender were found in relation to coping, self-efficacy, and self-concept of adolescents. Correlations with age were also found in several specific personal resources, but the correlations were very low. In this summary, only some socio-demographic effects are discussed as examples.

Regarding the effects of region, adolescents in Semarang City less frequently engaged in doing religious coping when having problems with interpersonal relationships, and also had low self-concept in parents relation and religious morality. On the other hand, the Semarang students had high self-efficacy in developing friendship and romantic relationships. Students in Pemalang Regency, in contrast to their counterparts in Semarang City, reported that they frequently engaged in religious coping and were high in religious morality and parents relation self-concept. However, they also reported having high negative self-thoughts. School type was also related to personal resources. For example, adolescents in public and Islamic schools reported more frequent involvement in religious coping, and had low self-concept in peer relations and friendship efficacy. The students of Catholic and national schools less frequently engaged in religious coping and more frequently gave-up when having interpersonal problems. They were more likely to have high friendship efficacy and peer relations self-concept. Regarding gender differences in coping, males reported more denial, while females reported more frequent involvement in religious and active coping, but also giving-up. Males had higher self-efficacy in developing romantic relationships and taking risks of interpersonal relationships, whereas females had higher friendship efficacy. Males had higher self-concept in personal characteristics such as physical and general self-worth, and emotional stability. Females were higher in academic and social self-concept, which included academic-verbal and general, relations with peers, and relations with parents and religiosity.

Effects of socio-demographic variables on personal resources have been reported in other studies. Gender effects on coping among adolescents were found by Kausar and Munir (2004), Shulman (1993), Seiffge-Krenke (1995), Renk and Creasy (2003), and Hampel and Petermann (2006). These studies found that females generally employed more coping strategies and were more (actively) seeking social support. These findings are similar to the findings in the present study, in which female students reported more frequent behaviours reflecting religious coping and active coping, which include seeking social support.

A number of studies have found an effect of gender on adolescent self-concept (e.g. Marsh, 1989a; Marsh et al., 1988; Tarrant, MacKenzie, & Hewitt, 2006; Rätty, Larsson, Söderfeldt, & Larsson, 2006). While some studies found that males had higher self-concept in overall aspects than did females, other studies reported different results depending on the respondent groups and the measurement used. Marsh (1989) and Marsh et al. (1988) who used Self Description Questionnaire (the basis for constructing the self-concept measure used in the Central Java study), reported that females had higher self-concept in academic-verbal and academic general (school) than did males. Males had higher scores on physical ability and appearance, and Math self-concept. The Central Java study replicated some of these findings. Specifically, females had higher self-concept in academic-verbal and general, and males had higher self-concept in physical and general self-concept, but not in Math. This study also found that females had higher self-concept than males in social aspects, such as relations with peers and relations with parents.

The effect of socio-cultural background on coping was found by Oláh (1995). Using data collected from several cultural backgrounds, including Hungary, Sweden, Italy, India, and Yemen, it was found that adolescents in Hungary, Sweden, and Italy exhibited more problem-focused coping, while their counterparts in India and Yemen more frequently used emotion-focused coping. The socio-demographic background of the Central Java study is different from those of Oláh's study. Region and school type, two of the socio-demographic variables used in the Central Java study, might have specific cultures, or at least sub-cultures. The sub-cultures could have their roots in local culture, religion, and school atmospheres. These sub-cultures, then, could have influenced the way adolescents cope with interpersonal problems, their self-efficacy, and their self-concept.

4.2. The roles of religiosity for Central Java adolescents

The present research found a role of religion, or probably more precisely religiosity, in the coping behaviours of adolescents. Although items with religious contents were constructed with active, internal, and withdrawal connotations, all the items pooled into one factor, implying the existence of religious coping among Central Java adolescents. The religiosity might also influence the atmospheres of schools attended by young people. Comparisons among school type with regard to coping, self-efficacy, and self-concept, did reveal some differences. For example, students of Islamic schools reported frequent involvement in religious coping and higher self-concept in religious morality (and parents relation), but low in peer relations self-concept. The students of Catholic schools, compared to those of other schools, had lower scores on religious coping and self-concept associated with religiosity, but higher scores on self-concept of peer relations and in friendship efficacy. Adolescents attending Protestant schools reported low involvement in giving-up coping and had low scores on negative-self-concept. Even though there were only a few differences among the students of religion-related schools, a role of religiosity in the personal resources of Central Java or Indonesian adolescents was noticeable. The study on adolescent *pacaran* couples also revealed that religious differences between the young couples could be a reason for conflicts between young people and their parents. The findings of the *pacaran* study (presented in Chapter 4), that the majority of adolescents dated a person whose religion was

the same as his or her own religion, may also emphasize the importance of religious affiliation in the lives of adolescents in Central Java or Indonesia in general.

Much of the research on socio-cultural backgrounds different from Indonesian cultures did not include religiosity. An example is the CASQ (Coping Across Situation Questionnaire) coping questionnaire developed by Seiffge-Krenke (1995), which was used as the basis for the instrument used in this study. The original questionnaire was developed in Germany and had been validated in many studies in a European context. Nevertheless, the questionnaire may need to be adapted for use in other cultural backgrounds such as Indonesia, by including religion-related content for dealing with problems. The self-concept measure used in this study, namely, the Self Description Questionnaire (SDQ) III (Marsh, 1989b), included a religious dimension. It was mentioned in Chapter 2 that one of the considerations for selecting SDQ III as the main reference for constructing the self-concept instrument was that the SDQ III included a religious component. The findings about the roles of religiosity in the lives of adolescents in Central Java emphasize the necessity to take account the religious aspect when doing research in cultures in which religion, at least formally, plays important roles.

4.3. Correlations among specific personal resources

Correlation analyses found that most of the personal resources were correlated with each other although the correlations were very low. Correlations among some personal resources could be understood as the result of overlapping contents of the correlated factors. An example is the correlation between self-concept in parents relation-and-religious morality and religious coping. Similar overlap can be seen in the correlations between peer relations self-concept and active coping (which also included social support seeking), between peer relation self concept and friendship efficacy as well as romantic efficacy, between negative self-concept and giving-up coping, and between friendship efficacy and active coping. Marsh and O'Neill (1984) found that self-concept in certain factors were correlated with corresponding actual performance. This result, *mutatis mutandis*, can also be used to explain the correlations between the specific personal resources. Seiffge-Krenke (1990) also found correlations between self-concept and coping. She found that adolescents who were content with themselves and the world, had good relations with parents, and were confident with their own ability were also more frequently adopted active coping rather than internal coping and withdrawal. On the other hand, adolescents with depressed self-concept more frequently withdrew rather than actively or internally coped with problems. Shulman (1993) found that the availability of close relationships enhanced adaptive coping, in this case active coping and internal coping. Zimmer-Gembeck and Locke (2007) reported that coping strategy was related to relationships with parents and teachers. Positive relationships were associated with more active coping with problems at home and at school, while positive relationship with parents were negatively correlated with avoidance coping.

4.4. Methodological note

The self-efficacy measure in this study assumed that the participants had been in romantic relationships. As reported in Chapter 3, "only" 67.6% of in-school participants reported having been in a dating relationship. For those who had never been in such a relationship were asked to replace "*pacar*" (romantic partner) with "very close friend". Nonetheless, a romantic relationship and a close friendship relationship may still be different from each other. Hence the interpersonal-behavioural skills needed in dealing with the situations may also differ.

For out-school data collection, about 69% respondents reported having been in romantic relationships (see Chapter 3). The self-efficacy measure for these participants,

however, included several sexual behaviours which might not be done by those who had no boyfriend or girlfriend. The 31% of the participants who had never been in romantic relationships were asked to imagine “as if they are in such situations”. Imagining doing socially desirable behaviours (such as refusing to be involved in sexual behaviours) might be easier than doing the behaviours in reality. This situation might interfere with the results of self-efficacy measure. Nonetheless, all participants were included in the analysis, because the measures were about self-efficacy, *not about behaviours*. It was assumed that there was not much difference between those who have been and those who have not been in romantic relationships in terms of their self-efficacy in an intimate relationship context. Even some of those who have been in such a relationship may never have had to deal with any proposals to engage in sexual behaviours. However, if possible, it is recommended that future studies differentiate those who have been confronted with proposals for involvement in sexual behaviours from those who have not faced such a confrontation. It would then be possible to directly compare the two groups.

References

- Alferi, S. M., Culver, J. L., Carver, C. S., Arena, P. L., & Antoni, M. H. (1999). Religiosity, religious coping, and distress. A prospective study of Catholic and Evangelical Hispanic women in treatment for early-stage breast cancer. *Journal of Health Psychology, 4*, 343-356.
- Antonovsky, A. (1979). *Health, Stress, and Coping. New Perspectives on Mental and Physical Well-Being*. San Francisco & London: Jossey-Bass.
- Bandura, A. (1992). Exercise of personal agency through the self-efficacy mechanism. In R. Schwarzer (Ed.). *Self-efficacy: Thought Control of Action*, pp. 3-38. Washington, etc.: Hemisphere Publishing Corporation.
- Bandura, A. (1995a). Exercise of personal and collective efficacy in changing societies. In A. Bandura (Ed.). *Self-efficacy in Changing Societies (pp.1-45)*. Melbourne: Cambridge University Press.
- Bandura, A. (Ed.). (1995b). *Self-efficacy in Changing Societies*. Melbourne: Cambridge University Press
- Bandura, A. (1997). *Self-efficacy: The Exercise of Control*. New York: W. H. Freeman and Company.
- Byrne, B. M. (1996). *Measuring Self-Concept Across the Life Span*. Washington, DC: American Psychological Association.
- Charlton, A., Minagawa, K., & While, D. (1999). Saying “no” to cigarette: a reappraisal of adolescent refusal skills. *Journal of Adolescence, 22*, 695-707.
- Crain, R. M. (1996). The influence of age, race, and gender on child and adolescent multidimensional self-concept. In B. A. Backen (Ed.). *Handbook of Self-concept: Developmental, Social, and Clinical Considerations (pp. 395-420)*. New York, etc.: John Wiley & Sons, Inc.

- Frydenberg, E. & Lewis, R. (1991). Adolescent coping: The different ways in which boys and girls cope. *Journal of Adolescence*, 14, 119-133.
- Frydenberg, E. & Lewis, R. (1993). Boys play sport and girls turn to others: age, gender and ethnicity as determinants of coping. *Journal of Adolescence*, 16, 253-266.
- Hampel, P., & Petermann, F. (2006). Perceived stress, coping, and adjustment in adolescents. *Journal of Adolescent Health*, 409-415.
- Harter, S. (1996). Historical roots of contemporary issues involving self-concept. In B. A. Backen (Ed.). *Handbook of Self-concept: Developmental, Social, and Clinical Considerations* (pp. 1-37). New York, etc.: John Wiley & Sons, Inc.
- Kausar, R., & Munir, R. (2004). Pakistani adolescents' coping with stress: effect of loss of a parent and gender of adolescents. *Journal of Adolescence*, 27, 599-610.
- Lazarus, R. S. & Folkman, S. (1984). *Stress, Appraisal, and Coping*. New York: Springer Publishing Company.
- Marsh, H. W. (1989a). Age and sex effects in multiple dimensions of self-concept: pre-adolescence to early adulthood. *Journal of Educational Psychology*, 81, 417-430
- Marsh, H. W. (1989b). *Self Description Questionnaire (SDQ) III Manual*. Sydney: University of Western Sydney Macarthur.
- Marsh, H. W. & Hattie, J. (1996). Theoretical perspectives on the structure of self-concept. In B. A. Backen (Ed.). *Handbook of Self-concept: Developmental, Social, and Clinical Considerations* (pp. 38-90). New York, etc.: John Wiley & Sons, Inc.
- Marsh, H. W., & O'Neill, R. (1984). Self Description Questionnaire III: The construct validity of multidimensional self-concept ratings by late adolescents. *Journal of Educational Measurement*, 21, 153-174.
- Marsh, H. W., Byrne, B. M., & Shavelson, R. J. (1988). A multifaceted academic self-concept: Its hierarchical structure and its relation to academic achievement. *Journal of Educational Psychology*, 80, 366-380.
- Murphy, D. A., Rotheram-Borus, M. J., & Reid, H. M. (1998). Adolescent gender differences in HIV-related sexual risk acts, social-cognitive factors and behavioural skills. *Journal of Adolescence*, 21, 197-208.
- Nieder, T. & Seiffge-Krenke, I. (2001). Coping with stress in different phases of romantic development. *Journal of Adolescence*, 24, 297-311.
- Oláh, A. (1995). Coping strategies among adolescents: a cross-cultural study. *Journal of Adolescence*, 18, 491-512.

- Pargament, K. I., et al. (1992). God help me (II): The relationships of religious orientation to religious coping with negative life events. *Journal for the Scientific Study of Religion*, 31, 504-513.
- Pargament, K. I., et al. (1994). Methods of religious coping with the gulf war: cross-sectional and longitudinal analyses. *Journal for the Scientific Study of Religion*, 33, 347-361.
- Pargament, K. I., Smith, B. W., Koenig, H. G., & Perez, L. (1998). Patterns of positive and negative religious coping with major life stressors. *Journal for the Scientific Study of Religion*, 37, 710-724.
- Patterson, J. M. & McCubbin, H. I. (1987). Adolescent coping style and behaviours: conceptualisation and measurement. *Journal of Adolescence*, 10, 163-186.
- Peters, W. A. P. (1998). The self-concept of able young adolescents in China and the Netherlands: a comparative study. *Dissertation*, Katholieke Universiteit Nijmegen.
- Pollina, L. K. & Snell, Jr., W. E. (1999). Coping in intimate relationships: Development of the multidimensional intimate coping questionnaire. *Journal of Social and Personal Relationships*, 16, 133-144.
- Prout, H. T. & Prout, S. M. (1996). Global self-concept and its relationship to stressful life conditions. In B. A. Backen (Ed.). *Handbook of Self-concept: Developmental, Social, and Clinical Considerations* (pp. 259-286). New York, etc.: John Wiley & Sons, Inc.
- Räty, L. K. A., Larsson, G., Söderfeldt, B. A., & Larsson, B. M. W. (2006). Psychosocial aspects of health in adolescence: The influence of gender, and general self-concept. *Journal of Adolescent Health*, 36, 530.e21-530.e28.
- Renk, K. & Creasey, G. (2003). The relationship of gender, gender identity, and coping strategies in late adolescents. *Journal of Adolescence*, 26, 159-168.
- Santelli, J. S., et al. (2004). Initiation of sexual intercourse among middle school adolescents: The influence of psychosocial factors. *Journal of Adolescent Health*, 34, 200-208.
- Schwarzer, R. (1992a). Self-efficacy in the adoption and maintenance of health behaviours: Theoretical approaches and a new model. In R. Schwarzer (Ed.). *Self-efficacy: Thought Control of Action*. Washington, etc.: Hemisphere Publishing Corporation
- Schwarzer, R. (Ed.). (1992b). *Self-efficacy: Thought Control of Action*. Washington, etc.: Hemisphere Publishing Corporation.
- Schwarzer, R. (1999). Self-regulatory processes in the adoption and maintenance of health behaviours: The role of optimism, goals, and threats. *Journal of Health Psychology*, 4, 115-127.
- Seiffe-Krenke, I. (1990). Developmental processes in self-concept and coping behaviour. In H. Bosma & S. Jackson (Eds.), *Coping and self-concept in adolescence* (pp 51-68). Berlin Heidelberg: Springer-Verlag.

- Seiffge-Krenke, I. (1993). Coping behaviour in normal and clinical samples: more similarities than differences? *Journal of Adolescence*, 16, 285-303.
- Seiffge-Krenke, I. (1995). *Stress, coping, and relationships in adolescence*. Marwah, N. J.: Lawrence Erlbaum Associates.
- Seiffge-Krenke, I., & Beyers, W. (2005). Coping trajectories for adolescence to young adulthood: Links to attachment state of mind. *Journal of Research on Adolescence*, 15, 561-582.
- Shavelson, R. J., Hubner, J. J., & Stanton, G. C. (1976). Self-concept: Validation of construct interpretations. *Review of Educational Research*, 46, 407-441.
- Shulman, S. (1993). Close relationships and coping behaviour in adolescence. *Journal of Adolescence*, 16, 267-283.
- Smet, B., Maes, L., De Clercq, L., Haryanti, K., & Winarno, R.D. (1999). Determinants of smoking behaviour among adolescents in Semarang, Indonesia. *Tobacco Control*, 8, 186-191.
- Tarrant, M., MacKenzie, L., & Hewitt, L. A. (2006). Friendship group identification, multidimensional self-concept, and experience of developmental tasks in adolescence. *Journal of Adolescence*, 29, 627-640.
- Van der Werff, J. (1990). The problem of self-conceiving. In H. Bosma & S. Jackson (Eds.), *Coping and self-concept in adolescence (pp 13-33)*. Berlin Heidelberg: Springer-Verlag.
- Zimmer-Gembeck, M. J. & Locke, E. M. (2007). The socialization of adolescent coping behaviours: Relationships with families and teachers. *Journal of Adolescence*, 30, 1-16.

**Indonesian Adolescent Sexuality and Romantic Relationships:
Exploratory Studies**

Chapter 6:

**SEXUAL SITUATIONS AND PERSONAL RESOURCES OF CENTRAL
JAVA ADOLESCENTS**

Chapter 6

SEXUAL SITUATIONS AND PERSONAL RESOURCES OF CENTRAL JAVA ADOLESCENTS

1. Introduction

The sexual situations of the Central Java adolescents and their personal resources have been presented and discussed in Chapter 3, Chapter 4, and Chapter 5. The objective of this chapter is to identify relationships between the situations and personal resources. The results of the *pacaran* study, presented in Chapter 4 and partly in Chapter 5, will not be included in these analyses because the data are not relevant. This chapter starts with a brief summary of the sexual situations as reported in Chapter 3 and personal resources as described in Chapter 5, followed by a review of related literature. Several hypothetical models will be presented in line with the literature review. A summary of the measures and variables and the methods for analysing the data will be described. The results of the analyses will be then be presented and discussed in the context of the research setting, Central Java, Indonesia, and in comparison with other studies.

1.1. A brief overview

The sexual situations, as described in Chapter 3, covered both in-school and out-school students. For the *in-school students*, the sexual situations included the *pacaran* status of the participants and of their friends, and their psychosexual problems. What is meant by the *pacaran* status is how often they have been in a romantic relationship. The psychosexual problems include the frequency of occurrence of difficulties or problems the adolescents had experienced in relation to their own sexual development. Chapter 3 also presented the adolescents' knowledge about sexual matters, which probably has a role in the sexual situations, and therefore can be categorised as a personal resource associated with adolescent sexuality. The knowledge about sexual matters consists of knowledge about female fertility and beliefs associated with physical appearances, knowledge about male fertility and beliefs associated with intercourse, and beliefs associated with diseases.

The sexual situations of *out-school students* also included the *pacaran* status of the participants and their friends. There was also information about their own sex-related behaviours, and the sex-related behaviour of their friends. The self-reported sex-related behaviours comprise three dimensions, namely non-dyadic behaviours, dyadic behaviours, and involvement in consequences of sexual behaviours. The sex-related behaviours of friends consisted of two dimensions, i.e. non-dyadic behaviours, and risky dyadic behaviours.

The personal resources discussed in Chapter 5 were coping with problems in interpersonal relationships, interpersonal self-efficacy, and self-concept. Data were gathered from *in-school* students. Four coping strategies were found among Central Java adolescents for dealing with interpersonal problems, namely religious coping, active coping, giving-up, and denial. Adolescent interpersonal self-efficacy had three dimensions, i.e. friendship efficacy, romantic or intimacy efficacy, and risk-taking efficacy. Friendship efficacy included self-efficacy to initiate and maintain friendship. Romantic or intimacy efficacy refers to self-efficacy in initiating and maintaining intimate relationships. Risk-taking efficacy is related to taking interpersonal risks, such as terminating a relationship and refusal behaviours. Personal resources data collected from in-school students concerned self-concept. The self-concept, includes seven dimensions: physical and general self-worth, academic-verbal and general, relationships with peers (same-sex and opposite-sex), relations with parents and religious morality, emotional stability, academic-math, and negative self-worth.

Data on personal resources which were collected from *out-school* students concerned intimate self-efficacy which has three dimensions: romantic efficacy, courtship efficacy, and refusal efficacy. Romantic efficacy includes self-efficacy in initiating and maintaining a romantic relationship, such as approaching a person and taking care of partner's feelings. Courtship efficacy is associated with involvement in sexual behaviours such as kissing and intercourse. Refusal efficacy refers to refusal behaviours such as refusing to have a romantic relationship or to be involved in sexual behaviours.

Overall there are three variables of sexual situations of in-school students and five variables of sexual situations of out-school students. Concerning personal resources related to adolescent sexuality and interpersonal relationships, at least 17 variables can be drawn from both in-school and out-school data. In this chapter, however, not all the variables will be analysed. The selection of the variables or aspects of sexual situations and personal resources to be included in the analysis of this chapter will be based on a literature review.

1.2. A review of related literature

1.2.1. Psychosexual problems

One of the sexual situations presented in Chapter 3 was adolescent psychosexual problems. The problems are related to their sexual development, including menstruation, breast development, pubic hair, body hair, and body development for females, and nocturnal emission, pubic hair, larynx development, body hair, and voice change for males. The sexual developments which begin in puberty may create problems for the adolescents (Steinberg, 2002; Archibald, Graber, & Brooks-Gunn, 2003). The psychosexual problems may be related to relatively early or late sexual maturation, reaction from others about the sexual development, and how the adolescent interprets and accepts the development. The interpretation and acceptance of the sexual development may be influenced by what Simon and Gagnon (1986) called sexual scripts. The sexual scripts include a cultural script, an interpersonal script, and an intrapsychic script. Although Simon and Gagnon's concern was with sexual scripts associated with sexual behaviours, the sexual scripts may be also applicable for sexual development. Teitelman (2004) examined adolescent girls' perspective on menarche and sexual health using the sexual scripts of Gagnon and Simon. She found that understanding menarche in the context of life transition, not just knowing what to do, resulted in girls having positive experiences. It was also found that creativity and intelligence facilitated the identification of opportunities related to menarche. Similar scripts may be also applicable for adolescents of both genders in dealing with their sexual development in general.

As Teitleman (2004) found, creativity and intelligence can contribute finding the meanings of menarche, knowledge about sexual matters, and they may also be important in helping young people understanding the sexual developments. It has been discussed in Chapter 3 that knowledge about sexual matters is blended with beliefs related to sexuality. Some problems with sexuality are often related to non-knowledge, or sexual myths (cf. Hull & Budiharsana, 2001). *It can be hypothesised that the more adolescents know about sexuality, the less likely that they will have problems with their sexual development.*

The psychosexual problems, in turn, may be related to how adolescents view themselves, especially concerning their physical appearance (Steinberg, 2002; Archibald et al., 2003). According to Bandura (1997) physical changes during adolescence indirectly contribute to the development of self-efficacy. The physical changes are a part of sexual development described in this research. If the physical developments are not as expected or idealised, they may have a negative contribution to the development of self-efficacy. The problems with sexual development can make young people feel uneasy with his or her body and feel unattractive. They may feel incapable of developing good relationships with others.

The feeling of incapability comes from the uneasy and unattractive feelings. Adolescents with more frequent psychosexual problems may also try to keep ongoing relationships because of insecurity feelings related to losing a relationship and incapability of building a new relationship. Other hypotheses that need to be tested are: problems with sexual development may lead to problems in other areas of self, in this case interpersonal self-efficacy and self-concept. *The more frequent psychosexual problems an adolescent has, the more likely he or she has less favourable self-concepts in physical appearance and general self-worth, and peer relations, but he or she is more likely to report negative self-thoughts.* It is also hypothesised that *adolescents with the more frequent psychosexual problems may have lower interpersonal self-efficacy, which include friendship efficacy, romantic efficacy, and risk-taking efficacy.*

As reported in Chapter 3, the occurrence of psychosexual problems is positively correlated with age, but the correlations are very low, mostly less than 0.10. This means that as the adolescents growing older, they more frequently experienced problems with their sexual development. The respondents in this research project were senior high school students aged 14-20 years. It also has been reported in Chapter 3 that age is negatively related to knowledge about sexual matters. Age is probably also related to other areas of self, especially interpersonal self-efficacy because the older the adolescent romantic relationship experiences they'd have had (Collins, 2003). Since there is a known relationship between age and psychosexual problems and knowledge, it is necessary to control for age when examining the relationships between having psychosexual problems and personal resources. The hypothesised relationships between the psychosexual problems and other aspects of adolescent life are illustrated in Figure 6.1.

As seen in the Figure 6.1, age is not included in the Model. It is assumed to be related to several variables but is excluded from the Figure to keep it simple. However, age will be included in analyses as a general developmental control.

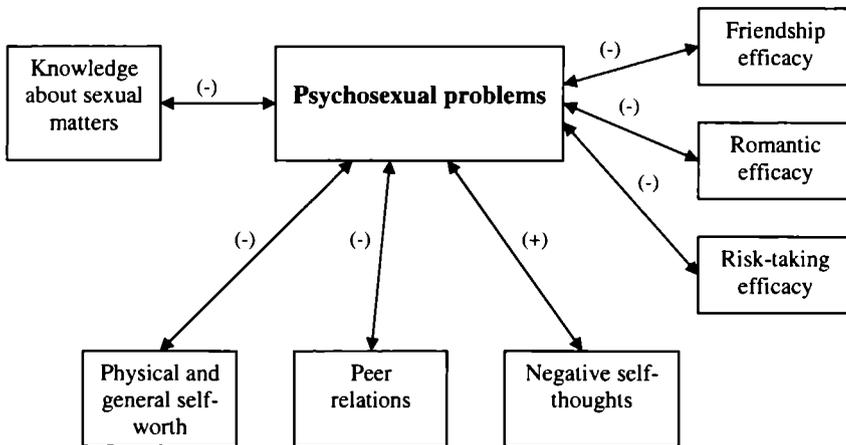


Figure 6.1: The hypothesised relationship between psychosexual problems and several personal resources of adolescents

1.2.2. Romantic relationships and sexual behaviours

A romantic relationship is normative and salient in adolescence, and its frequency increases with age (Collins, 2003). A romantic relationship is significant for adolescent development, including development of identity, close relationships with peers, and sexuality (Furman & Shaffer, 2003; Collins, 2003). The romantic relationships help adolescents develop a specific view of the self, especially the romantic self-concept and general self-esteem. The relationships also provide more possibilities for young people to expand their network of friends by knowing the friends of his or her romantic partner. Concerning the sexual development, romantic relationships provide a context for adolescents to learn about sexual behaviours, sexual roles, and also sexual orientation. Within the context of romantic relationships adolescents learn *what*, *how*, and *when* regarding the sexual behaviours.

In the developmental processes, the roles of peers are certainly not negligible. On one hand, adolescents are in the process of developing their individuality or autonomy, but, on the other hand, adolescents' lives also can not be separated from peer influences (Connolly & Goldberg, 1999; Shulman, 2003). Peer pressures can influence the risky behaviours of adolescents, including substance use and sexual behaviours (Crockett, Raffaelli, & Shen, 2006). A perception that peers are sexually active has been found to be related with sexual initiation of early adolescents (Kinsman, Romer, Furstenberg, & Schwarz, 1998). At the level of sexual relationships, perceptions of the romantic relationships of peers might also influence one's own romantic relationships. This relation is bidirectional, meaning that peer's experiences in romantic relationships influence an adolescent to have a boyfriend or a girlfriend, but it is also possible that adolescent own romantic experiences make him or her think that his or her friends having been in the same situation.

Research has found that self-efficacy is related to intention and involvement in sexual behaviours. Silver and Bauman (2006), for example, found that adolescents aged 14-17 years old who had no sexual experiences had higher abstinence self-efficacy than their counterparts who had had sexual experiences. Heinrich (1993), found that contraceptive self-efficacy was highly correlated with actual use of contraception among female college students who were unmarried and sexually active. Santelli et al. (2004) found that middle school students with high self-efficacy were less likely to initiate intercourse. On the other hand however, it was also found that students with higher scores on self-efficacy were more likely to engage in intercourse initiation. A study done by Bryan, Schindeldecker, and Aiken (2001) revealed that self-efficacy predicted intention to use a condom. The intention, in turn, predicted actual condom use. In a review of research on self-efficacy, Schwarzer and Fuchs (1995) concluded that self-efficacy has been found to predict intentions and health habits in several domains, including sexual health. The important role of self-efficacy in health behaviours is also emphasised by Schwarzer (1999; 1992) in the Health Action Process Approach (HAPA) model. In this model, health behaviour process consists of two phases: a motivation and a volition phase. During the motivation phase, individuals identify the risks, set goals and plan action. The volition phase involves initiating the action, maintaining it, and getting back to the planned action when it is derailed. The roles of self-efficacy in the behavioural process can be found both in the motivation phase and volition phase.

It is explicitly stated in the definition of self efficacy that it is related to behaviours in a specific context. Abstinence efficacy is associated with (non-) involvement in sexual behaviours, while contraceptive efficacy is in the context of the use of contraception. In addition to referring to a specific context or behaviour, self-efficacy also motivates individuals to enact and generate capabilities to enact the behaviour (Bandura, 1997). Therefore, an adolescent who perceives that he or she is capable of being involved in a romantic relationships is more likely to engage in dating behaviours or to have a romantic

partner. On one hand, the romantic self-efficacy increases the probability of involvement in romantic relationship. On the other hand, successful experiences in romantic relationships strengthen the adolescent's perception that he or she is capable of developing a romantic relationship, because successful experience is one of the sources of self-efficacy. Another source of self-efficacy which was also investigated in this research project was the romantic experiences of friends. The friends' romantic behaviours serve as vicarious experiences in developing adolescent romantic efficacy. Friends' involvement, however, may also play a role as peer pressure for young people to have also romantic partner (Connolly & Goldberg, 1999). The roles of self-efficacy and peer behaviours may be also applicable for adolescents' involvement in sexual behaviours.

Figures 6.2 and 6.3 summarise the hypothesised relationships between the adolescent sexuality and personal resources. In addition to self-concept and self-efficacy which have been discussed, two other variables are included in the models, i.e. age and active coping strategy. Age is not only related to adolescent romantic relationship (Collins, 2003), but is also associated with sexual behaviours, especially intercourse (e.g. Silver & Bauman, 2006; Aspy et al., 2007). Compared to younger adolescents, more older adolescents reported having had intercourse. Active coping is included in the model (Figure 6.2) as related to involvement in romantic relationship because the network of friends, which is expanded by romantic relationships, also brings about additional benefits for adolescents, such as availability of social support. Social support seeking is a type of active coping. However, adolescents with social characteristics (e.g. extraversion) may have a tendency to do active coping and to have a broad network of friends, which will enhance their friendship efficacy.

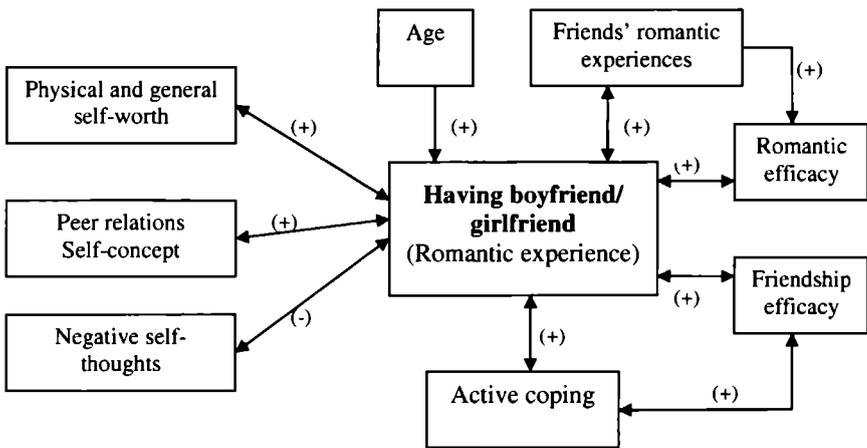


Figure 6.2: The hypothesised model of the relations between involvement in romantic relationship and personal resources

Figure 6.2 illustrates how an involvement in *pacaran* relates positively with other variables, except with negative self-concept, which include thoughts that he or she has difficulties to relate with others and has unattractive physical appearance. It was reported in Chapter 3 that age was correlated with reported romantic experiences of the adolescent himself/herself, and of their play friends, but not school friends. In addition, age is assumed to be related to personal resources, especially romantic self-efficacy because the older the adolescent the more likely he or she has been in a romantic relationship. In testing this model

age will be used as a general developmental control in the analyses. This model will be tested with the data obtained from *in-school* adolescents.

Figure 6.3 illustrates the dyadic sexual behaviour and its correlates among adolescents, and will be tested with the data collected from *out-school* respondents. The hypothesised relations are mostly positive, except the relations between refusal efficacy and the sexual behaviours, and between the sexual behaviours and self-concept in parents relation and religiosity. This means that adolescents with high refusal efficacy are less likely to be involved in dyadic sexual behaviours. The hypothesised negative relation between refusal efficacy and sexual behaviours is based on two assumptions. First, many sexual behaviours among adolescents happened involuntarily, especially among the girls. In such a situation, refusal skills play important roles in preventing the involuntary sexual behaviours. Second, sexual behaviours, especially intercourse, among unmarried adolescents are socially unacceptable and have multiple risks including physical, psychological, and social risks. Pregnancy in high school students, for example, will bring about other social risks, such as being expelled from school. As reported in Chapter 3, only about 6% of 224 adolescents reported having had intercourse. Results of the study on adolescent romantic couples (see Chapter 4) shows that only 10% of *pacaran* couples (N=6 of 59 couples) reported that they had had intercourse at least “once”. The small number of romantic couples involving in intercourse may indicate the effect of social norms or refusal skills of the parties involved, or a combination of both. It is also possible, however, that adolescents may engage in sexual behaviours not only with their romantic partner, but the roles social norms and refusal behaviours are assumed to have important key roles in this matter. It was found by Aspy et al. (2007) that family communication, which included teaching about what was right and wrong and about saying “no”, was correlated with delaying sexual involvement and with safe sexual behaviour. The finding of this study implicitly shows that social norms and refusal skills influence the sexual behaviours of adolescents.

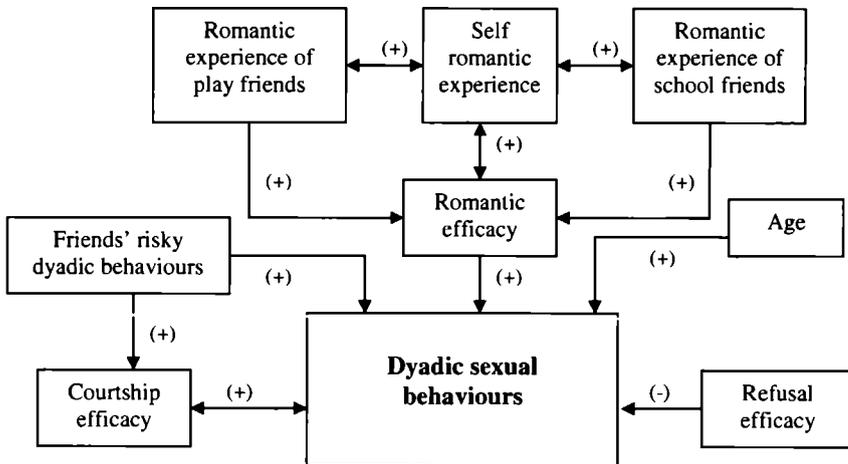


Figure 6.3: Predictors of involvement in dyadic sex-related behaviours among Central Java adolescents

The manner of incorporation of age in Model 1 and Model 2 is also applicable to this model. Age has been found to be related to sexual behaviours, especially intercourse. Age is also related to self-reported romantic experiences and similar experiences of play friends. It is also assumed that age is correlated with personal resources, in this case self-efficacy. However, to keep the illustration simple, age is only illustrated as being correlated with sexual behaviours because this model gives focuses on the dyadic sexual behaviour.

2. Method

2.1. Participants, variables and measurements

This chapter uses the data and results of factor analyses on sexual situations and personal resources as presented in Chapter 3 and Chapter 5. The data which are used in this chapter are age, status of romantic relationship (*pacaran*) of the respondent, and the status of romantic relationship of school friends as well as play friends. The participants were senior high school students in six regions in Central Java, namely Semarang City, Semarang Regency, Pekalongan City, Kudus Regency, Kebumen Regency, and Pemalang Regency. All types of schools (public, Islamic, Catholic, Protestant, and national schools) available in each region were represented in the research. The data were collected at in-school and out-school sites. There were 10608 respondents in the in-school sample and 224 respondents in the out-school sample. The gender composition of participants was 46% males and 54% females. The gender composition of in-school and out-school respondents was the same. The age of participants ranges from 14-20 for both groups of participants. The Mean age of in-school students was 16.82 years, whereas that of out-school students was 16.97 years.

Self-report on *romantic experience (pacaran) status* consisted of one item with four response options, namely "Never", "Once", "Twice", and "More than twice". The question on the *pacaran* status of school friends has six response options, i.e. "None", "Very few", "Few", "Many", "Very many", and "Almost all", while the question about the status of romantic relationship of play friends had seven response options, namely "None", "Very few", "Few", "Many", "Very many", "Almost all", and "All".

Some of the items about *psychosexual problems* for males and females were different. For each gender there were five items of sexual development to be rated in terms of frequency of being experienced as problematic on a 6-point scale from "Never" (1) to "Very often" (6). The total raw scores of each gender were used in the analyses of this chapter.

Knowledge about sexual matters consisted of three dimensions, namely knowledge about female fertility and beliefs associated with physical appearance, knowledge about male fertility and beliefs associated with intercourse, and belief associated with diseases. In this chapter, however, only the dimensions containing gender were included in the analyses. The knowledge about male fertility and beliefs associated with intercourse were used in relation to male psychosexual problems, and knowledge about female fertility and beliefs associated with physical appearance were used in relation to female psychosexual problems (see Figure 6.1). The total raw scores of each dimension were used in the analysis.

Interpersonal self-efficacy has three dimensions and were included in the analyses in this chapter. The dimensions are friendship efficacy, romantic efficacy, and risk-taking efficacy. Friendship efficacy covers perceived skills to initiate and maintain friendships. Romantic or intimacy efficacy refers to initiating and maintaining intimate relationships, including romantic relationships. Risk-taking efficacy is related to taking risks in interpersonal relationships, such as terminating a relationship and refusal behaviours. The interpersonal self-efficacy was measured on the in-school participants. For the out-school students the self-efficacy measure used was intimate self-efficacy which comprises three dimensions, i.e. romantic efficacy, courtship efficacy, and refusal efficacy. Romantic

efficacy refers perceived skills to be involved in romantic relationship Courtship efficacy is associated with involvement in sexual behaviours such as kissing and intercourse Refusal efficacy refers to refusal behaviours such as refusing to have a romantic relationship or to be involved in sexual behaviours

The *Self-concept* instrument has seven dimensions, but peer relations, physical and general self-worth, emotional stability, and negative self-thoughts were included in the analyses in this chapter The dimensions academic-verbal and general, and academic-math were not used

Among the four *coping strategies* found in this research, only active coping strategy was included for analysis in this chapter This functional coping is assumed to be related to friendships and romantic relationships The analyses on coping strategy, self-efficacy, and self-concept use factor scores, as had been done in Chapter 5

Sexual behaviours are the dimensions of sex-related behaviours of the respondents and of their friends found in the out-school data, as presented in Chapter 3 The self-reported sex-related behaviours consists of three dimensions, namely non-dyadic behaviours (pornography related behaviours and masturbation), dyadic behaviours (kissing, genital fondling, petting, and intercourse), and involvement in the consequences of sexual behaviours (pregnancy, diseases, and abortion) This chapter uses only the dyadic sexual behaviours because they are regarded as much riskier than non-dyadic sexual behaviours The risks of dyadic sexual behaviours are the possible physical, social, psychological, and financial consequences of the behaviours Involvement in the consequences of sexual behaviours was not included because only a very small number of respondents (1%) reported having been involved in such situations (see Chapter 3)

The sex-related behaviours of friends were found to be grouped into two dimensions, i.e. non-dyadic sexual behaviours and risky-dyadic sexual behaviours The content of non-dyadic sexual behaviour dimension is the same as the non-dyadic dimension of self-reported behaviours (the behaviours of the respondent himself/herself) The risky dyadic behaviour dimension is a combination between the dyadic behaviour and the risk consequences of the behaviours The analyses on these sex-related behaviours use the total raw scores of the items included in the respective dimensions

2.2 Analyses

Several analyses were executed to test the models illustrated in Figures 6.1, 6.2, and 6.3 For all the models, the analyses were done separately for males and females, taking into consideration that both gender have differences in having psychosexual problems, involvement in romantic relationships (*pacaran*), and engagement in sex-related behaviours Specifically for model 1 (Figure 6.1), the contents of psychosexual problems are different for males and females The knowledge about sexual matters also has gender sensitive aspects, namely knowledge about male fertility and beliefs associated with intercourse and knowledge about female fertility and beliefs associated with physical appearance

Partial correlation analyses are selected to test the relationships between variables included in Model 1 and Model 2 by controlling the effect of age A bivariate correlation analysis was used to evaluate the relationship between age and romantic relationship in Model 2 The significance levels reported are one-tailed The use of two-tailed tests of significance will be clearly indicated

A correlation analysis and a hierarchical linear regression analysis were used to test the hypothesised Model 3 in Figure 6.3 Four layers of variables in the model were identified as predicting the dyadic sexual behaviours of the Central Java adolescents At the first step, age was entered in the regression analysis One's own romantic experiences and the romantic experiences of friends was entered at the second step Perceived involvement of friends in

risky-dyadic sexual behaviours was entered at the third step. The three dimensions of intimate self-efficacy, romantic efficacy, courtship efficacy, and refusal efficacy, were entered at the fourth step.

3 Results

3.1 Correlates of psychosexual problems (Figure 6.1)

It was hypothesised that there would be a correlation between the psychosexual problems of Central Java adolescents and their knowledge about sexual matters. Adolescents with more knowledge about sexual matters would be less likely to have psychosexual problems. Psychosexual problems would also be correlated with self-efficacy and self-concept. It was expected that the correlations between psychosexual problems and the three aspects of self-efficacy would be negative. It was also expected that the correlations between psychosexual problems and self-concept in physical appearance and general self-worth, and with self-concept in peer relations, would be negative, while the correlations between having psychosexual problems and having negative self-thoughts would be positive. Two types of correlation analyses were done to test the model. The first used partial correlation analysis with age partialled-out. In the second analyses the respondents were divided in three age groups, 14-15 years, 16-18 years, and 19-20 years old. Pearson correlation analyses were then done for each age group separately. Separate analyses were also done on males and females.

The partial correlation analyses controlling age for provided only slight support for the hypothesis. It was found that the correlations between knowledge and psychosexual problems were negative for both genders, with $r=-0.03$ ($p<0.05$) and $r=-0.18$ ($p<0.01$) for males and females, respectively. These significantly negative correlations are in line with expectations. Also as expected, there was a positive correlation between having psychosexual problems and having negative self-thoughts in both genders. The correlation coefficients are 0.09 and 0.17, both are significant at 0.01, for male and female adolescents, respectively. The other correlations which were expected to be negative were found to be positive.

Table 6.1a The hypothesised and observed correlations between psychosexual problems and several personal resources with age partialled-out

Variables correlated with Psychosexual problems	Hypothesized correlations	Results	
		Male N=3528	Female N=4371
Knowledge about sexual matters	Negative	-0.03*	-0.18**
Friendship efficacy	Negative	0.10**	0.03*
Romantic efficacy	Negative	0.11**	0.05**
Risk-taking efficacy	Negative	0.04*	0.03*
Physical and general self-worth	Negative	0.13**	0.07**
Peer relations self-concept	Negative	0.11**	0.02
Negative self-thoughts	Positive	0.09**	0.17**

- 1) Printed in bold are the results which support the hypotheses
- 2) * Significant at 0.05 ** Significant at 0.01

The results of the partial correlation analyses for testing the model 1 are summarised in Table 6.1a. The correlations between having psychosexual problems and other included in the model 1 (Figure 6.1) are very low. Among those correlations that explain the most variance was having psychosexual problems among females, about 3% of which was explained by the knowledge about sexual matters. The psychosexual problems also

explained about 3% of the variance in having a negative self-concept, also among female respondents. The results also indicate that among the seven hypothesised correlations, only two of them are supported by the data.

For the second analysis the respondents were divided into three age groups (14-15 years, 16-18 years, 19-20 years). Pearson correlation analyses for each gender and each age group revealed that the data only slightly support the hypothesis. Significant negative correlations between knowledge about sexual matters and psychosexual problems were only found among the males in the 16-18 years old group ($r=-0.05$) and among all age groups of females, with $r=-0.30$, $r=-0.18$, and $r=-0.16$, for 14-15 years, 16-18 years, and 19-20 years old, respectively. All the correlations were significant at 0.01. The hypothesized positive correlation between psychosexual problems and negative self-concept, was only found among 16-18 year old males ($r=0.09$), 19-20 years old males ($r=0.18$), and 16-18 years old females ($r=0.19$). These correlations were also significant at 0.01. The other correlations which were expected to be negative were found positive. The results of all the analyses are summarised in Table 6.1b.

The results also show that the relationship between knowledge about sexual matters and having psychosexual problems was more salient among females than among males. The correlation between the two variables were higher among the younger than older female adolescents. The relation between psychosexual problems and negative self-thoughts among males tend to increase with age. These results may indicate that having psychosexual problems and their relations with other areas of self among adolescents is gender and age sensitive.

Table 6.1b: The hypothesised and observed correlations between psychosexual problems and several personal resources of Central Java adolescents

Variables correlated with Psychosexual problems	hypothesized correlations	Results (Male)			Results (Female)		
		Age 14-15 (N=184)	Age 16-18 (N=3504)	Age 19-20 (N=255)	Age 14-15 (N=318)	Age 16-18 (N=4418)	Age 19-20 (N=127)
Knowledge about sexual matters	Negative	- .04	-.05**	- .01	-.30**	-.18**	-.16*
Friendship efficacy	Negative	.09	.09**	.15**	.01	.02	.15*
Romantic efficacy	Negative	.10	.12**	.14**	.04	.06**	.12
Risk-taking efficacy	Negative	.06	.03	.20**	.03	.04**	- .06
Physical and general self-worth	Negative	.14*	.14**	.20**	.03	.09**	- .05
Peer relations self-concept	Negative	.12	.13**	.04	.03	.02	- .07
Negative self-thoughts	Positive	.01	.09**	.18**	.09	.19**	.06

- 1) All correlations are one-tailed *) Significant at 0.05, **) Significant at 0.01
- 2) Printed in **bold** are the results which support the hypotheses

3.2 Correlates of adolescent romantic experience

Model 2 (Figure 6.2) hypothesizes that the romantic experiences of the Central Java adolescents are negatively correlated with negative self-concept, and positively correlated with the other variables included in the model. Most of the hypotheses were supported by the data of both genders. Separate analyses for males (N= between 4127 and 4699) and females (N=between 4981 and 5635) showed that almost all the hypothesised relations were supported by the data. The only exception was the correlation between romantic experiences and negative self-thoughts, which was not significant for either gender. The results of the analyses are presented in Figure 6.4a (for males) and Figure 6.4b (for females). It is important to note that correlation between romantic relationship and age is bivariate (Pearson), while the other correlations are partial correlation controlling for age.

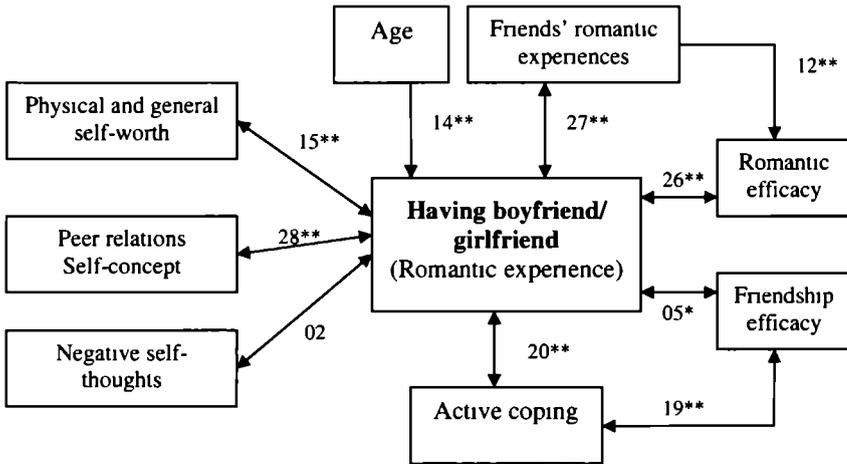


Figure 6.4a The correlates of romantic experiences of the Central Java *male* adolescents (N between 4127 and 4699, due to pairwise deletion)

Figure 6.4a shows that, among male adolescents in Central Java the correlations between romantic experiences and several personal resources are generally low to moderate. Moderate correlations were found between the romantic experiences and friend's romantic experiences, peer relations self-concept, and romantic efficacy, with correlation coefficients between 0.26 and 0.28. A very low but significant correlation was found between romantic experiences and friendship efficacy ($r=0.05$, $p<0.05$).

Analyses on the female data revealed almost the same results as of those of males. Almost all the correlations were significant and positive, as expected. Again, there was no correlation between romantic relationship experiences and negative self-concept. The differences between the male and female results are in the size of correlation coefficients, but the differences are very small, and the patterns of the results are the same. The correlations of females' romantic experiences with peers relations self-concept and with friends' romantic experiences are 0.37 and 0.32 (both significant at 0.01), respectively, slightly higher than the correlations of the same variables among male participants (0.28 and 0.27, respectively).

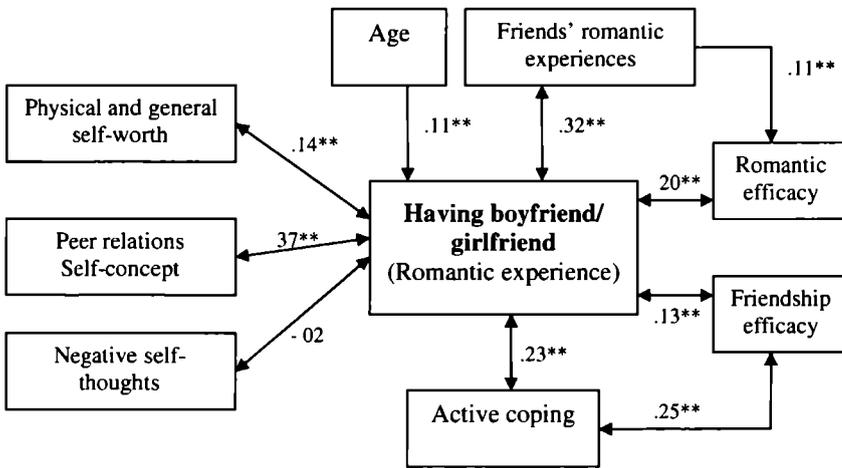


Figure 6.4b: The correlates of romantic experiences of the Central Java *female* adolescents (N= between 4981 to 5635, due to pairwise deletion)

3.3. Predictors of adolescent involvement in dyadic sexual behaviours

Model 3 (Figure 6.3) was tested with the *out-school* data. Two types of analyses were conducted on the variables Model 3, namely bivariate Pearson correlations and hierarchical regression analyses. Age was not partialled-out of the correlation analysis because controlling for variables was planned for the hierarchical regression analysis. The analyses were done separately for males (N=73) and females (N=92). The interrelations among the variables in Model 3 are summarized in Figure 6.5a for males and Figure 6.5b for females.

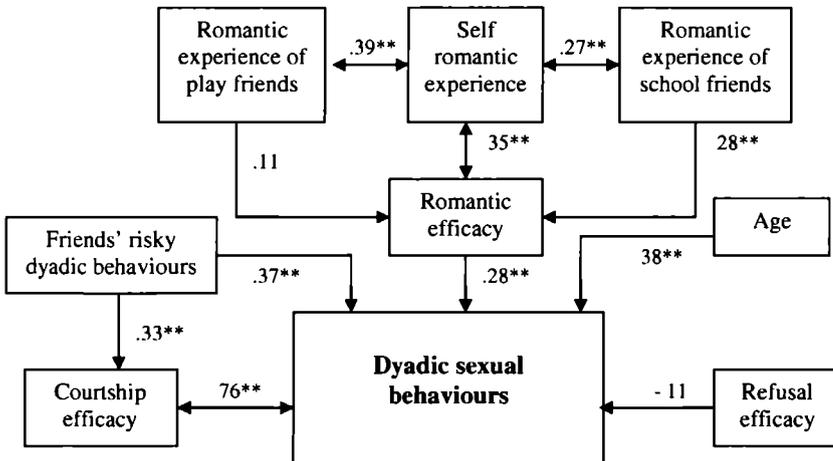


Figure 6.5a: Correlations between variables included in Model 1 among *male* adolescents (N=73). All correlations are one-tailed.

As can be seen in Figure 6.5a, almost all of the hypothesised relations were supported by the data. It was found that males' own romantic experiences and similar experiences of school friends were correlated with adolescent romantic efficacy, which included perceived

efficacy in developing and being involved in romantic relationships, with $r=0.35$ ($p<0.01$) and $r=0.28$ ($p<0.01$) for one's own experiences and friends experiences, respectively. The experiences of play friends, however, was not correlated with romantic efficacy ($r=0.11$; $p>0.05$). Romantic efficacy was also correlated with dyadic sexual behaviours ($r=0.28$; $p<0.01$). The dyadic sexual behaviour was correlated with courtship efficacy ($r=0.76$; $p<0.01$), but not with refusal efficacy. Other variables which were correlated with the sexual behaviours were age and friends' sexual behaviours, with $r=0.38$ ($p<0.01$) and $r=0.37$ ($p<0.01$), respectively. A relation between adolescent courtship efficacy and friends' risky dyadic sexual behaviours was also found. Among the correlations, the correlation between courtship efficacy and dyadic sexual behaviours was the strongest, with $r=0.76$ ($p<0.01$).

Results for females were somewhat different from the results for males. The most apparent differences between males and females were the correlations of courtship efficacy and refusal efficacy with sexual behaviours. No correlation was found between the females' sexual behaviours and courtship efficacy, in contrast to the high correlation found with males. Another striking difference between males and females is the relation between sexual behaviours and refusal efficacy. They were which was negatively correlated in females ($r=-0.21$; $p<0.05$), whereas no significant correlation was found in males. Romantic efficacy was correlated with one's own experiences in romantic relationships ($r=0.23$; $p<0.05$), and with sexual behaviours ($r=0.29$; $p<0.01$). Compared to males, the correlations of females sexual behaviours with age and with friends' behaviours were much lower, with $r=0.15$ and $r=0.14$, (both $p<0.05$), for age and friends' sexual behaviours, respectively. As with males, the analysis also revealed that friends' risky sexual behaviours was correlated with courtship efficacy in female adolescents. Romantic efficacy, however, was not correlated with the romantic experiences of play friends.

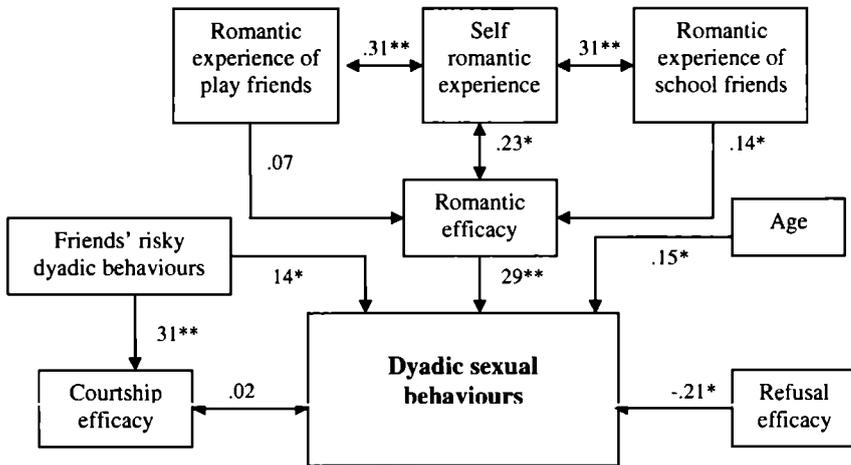


Figure 6.5b: Correlations between variables included in Model 1 among female adolescents (N=92). All correlations are one-tailed.

Hierarchical regression analyses were performed separately for males (N=73) and females (N=92). The results are summarised in Table 6.2a (for males) and Table 6.2b (for females). In the analyses, age was entered in the first step as a general development control. For males, age predicted 14% of the variance in the sexual behaviours ($p<0.01$), but among females age did not predict the sexual behaviours ($R^2=0.02$; $p>0.05$). One's own and friends (school friends and play friends) romantic experiences were entered in the second step. The

variable accounted for an additional 32% and 18% of the variance among males and females, respectively. The sexual behaviour of friends was next entered, which accounted for 6% ($p < 0.01$) of the variance among males, but only 1% ($P > 0.05$) among females. At the final step, the three aspects of intimate self-efficacy were entered. Among males, self-efficacy accounted for an additional 23% of the total variance, while among females the perception of self-skills explained an additional 11% of the total variance. Overall the model explained 74% of variance of male sexual behaviours, and 32% of the variance of female dyadic sexual behaviours. It can be concluded that this model successfully predicts the dyadic sexual behaviours of male, but not female, adolescents in Central Java.

Table 6.2a: Results of hierarchical regression analysis on the dyadic sexual behaviours as the outcome variable among *male* adolescents (N=73)

Predictors	Pearson r	Beta at final step	R ² Change	R ² Cumulative
Age	.38**	.07	.14**	.14**
Romantic experiences			.32**	.46**
- Own romantic experiences	.62**	.22**		
- Romantic experiences of school friends	.17 ^x	-.17*		
- Romantic experiences of play friends	.39**	.15		
Friends' risky dyadic sexual behaviours	.37**	.10	.06**	.52**
Intimate self-efficacy			.23**	.74**
- Romantic efficacy	.28**	.12		
- Courtship efficacy	.76**	.61**		
- Refusal efficacy	-.11	-.14*		

The Pearson correlations are two-tailed.

^x) Significant at 0.10; *) Significant at 0.05, **) Significant at 0.01

Table 6.2b: Results of hierarchical regression analysis on the dyadic sexual behaviours as the outcome variable among *female* adolescents (N=92)

Predictors of dyadic sexual behaviours	Pearson r	Beta at final step	R ² Change	R ² Cumulative
Age	.15 ^x	.08	.02	.02
Romantic experiences			.18**	.20**
- Own romantic experiences	.42**	.34**		
- Romantic experiences of school friends	.23*	.19		
- Romantic experiences of play friends	.13	-.09		
Friends' risky dyadic sexual behaviours	.14 ^x	-.01	.01	.21**
Intimate self-efficacy			.11**	.32**
- Romantic efficacy	.29**	.23*		
- Courtship efficacy	.02	.11		
- Refusal efficacy	-.21*	-.31**		

The Pearson correlations are two-tailed.

^x) Significant at 0.10, *) Significant at 0.05; **) Significant at 0.01.

While this can be regarded as a good model, some of the included variables did not significantly predict the sexual behaviours of the young males. At the final step of the regression analysis, only one's own romantic experiences, romantic experiences of school friends, courtship efficacy, and refusal efficacy predicted the sexual behaviours of male

adolescents In the Pearson correlation, the romantic experience of school friends was positively correlated with the male sexual behaviours ($r=0.17$, $p>0.05$), while in the final step of regression analysis the correlation between the two variables was negative ($\beta=-0.17$; $p<0.05$) This does not mean that the friends' romantic experiences were negatively related to respondents' sexual behaviours Rather, the romantic experiences of school friends may play a role in the regression analysis as a suppressor variable which partialled-out irrelevant variance in the other predictors (Lewis-Beck, Bryman, & Liao, 2004), so that the predictors are "purified" (Salkind, 2007), although the Beta coefficients are lower than those of the bivariate correlations Therefore, one's own romantic experiences, the romantic experiences of school friends, and courtship efficacy can lead male adolescents to an involvement in sexual behaviours, while refusal efficacy may restrain them to engage in sexual behaviours.

The results were different for female participants. At the final step of the hierarchical regression, only one's own romantic experiences, romantic efficacy, and refusal efficacy were found to significantly predict involvement in dyadic sexual behaviours. Romantic experiences and romantic efficacy possibly contribute to female adolescents becoming involved in sexual behaviours, while refusal efficacy prevents their involvement These results suggest that there are differences between males and females in patterns of demographic-psycho-social variables which predict their involvement in dyadic sexual behaviours

4. Summary and discussion

This chapter aimed to identify the relationships between the sexual situations and personal resources of Central Java adolescents. The sexual situations included psychosexual problems, experiences in romantic relationships, and sex-related behaviours. Personal resources included knowledge about sexual matters, coping with interpersonal problems, self-efficacy, and self-concept. The data from both data collection sites (in-school and out-school) were analyzed. On the basis of a literature review several hypotheses were constructed in three inter-relational models. The models focused on psychosexual problems (Model 1, for in-school adolescents), experiences in romantic relationships (Model 2, for in-school adolescents), and dyadic sexual behaviours (Model 3, for out-school students)

The hypothesised Model 1 received little support. The problems with psychosexual development were found to be only slightly correlated with knowledge about sexual matters, especially among females. The relations between knowledge and psychosexual problems tended to decrease as adolescents grew older The problems were also related to negative self-concept for both genders. Involvement in romantic relationships (Model 2) was found to be slightly to moderately related with age, the romantic experiences of friends, and personal resources, including interpersonal self-efficacy, self-concept, and coping, in both genders. Concerning adolescent involvement in sexual behaviours (Model 3), there were different patterns found in male and female students. Among males, the sexual behaviours were strongly related to their courtship efficacy, while among females the involvement in such behaviours was mostly related to experience in romantic relationships and refusal efficacy. The roles of age and of friends in romantic relationships and romantic efficacy were also more apparent among males than among females Another important finding of this research is that the patterns related to sexuality and interpersonal relationships of *in-school* students and *out-school* students are similar.

4.1. Comparability of findings from in-school and out-school data collection

The in-school participants were recruited in the school context, during school hours, while the out-school participants were recruited outside school hours The criteria for inclusion in the two groups was that participants should be senior high school students in the

areas of research and aged between 14-20 years old. Although the data collection settings were different, several results of correlation analyses of the two groups of participants are comparable to each other, as presented in Table 6.3.

Table 6.3: Comparison of several analyses results between in-school and out-school data set

Correlated variables (Pearson)	In-school		Out-school	
	Males N>4100	Females N>4900	Males N=73	Females N=92
Romantic experiences and age	.14**	.11**	.31**	.07
Own romantic experiences and school friends romantic experiences	.27**	.30**	.27**	.31**
Romantic efficacy and own romantic experiences	.27**	.22**	.35**	.23*
Romantic efficacy and friends' romantic experiences and	.12**	.07**	.28**	.14*

The Pearson correlations are one-tailed.

*) Significant at 0.05; **) Significant at 0.01.

Table 6.3 shows that the findings in one setting were similar to the findings of other setting, even though the samples, and sample sizes, were different. Therefore, the model used for out-school data (Model 3) can also be applied to in-school data set. Similarly, the models tested with in-school data set (Models 1 and 2) can also be applied to the out-school context, insofar as the relevant data are available.

4.2. Gender differences

Gender differences were found regarding the correlates of psychosexual problems (see Table 6.1b) and the correlates of dyadic sexual behaviours (see Figures 6.5a and 6.5b; and Table 6.2a and 6.2b). The occurrence of psychosexual problems among females, especially the younger ones, is related with their knowledge about female fertility and beliefs about physical appearance. Other differences between gender are the roles of age, friends, and intimate self-efficacy in their romantic efficacy or sexual behaviours. The relation between romantic efficacy and school friends' romantic experiences was stronger in males than in females. In addition, the roles of age, friends' sexual behaviours, and courtship efficacy in the dyadic sex-related behaviours among males were much stronger than among females. On the other hand, the relation between refusal efficacy and sexual behaviours was higher among females than among males. Model 3 (Figures 6.3, 6.5a, and 6.5b) of this study was found to be a good model for predicting the dyadic sexual behaviours among male adolescents, but not among females.

Several studies, including those done in Indonesia, also found differences between males and females in their sexual behaviours. Setyoneluri, Kusumaryani, Antarwati, Tobing, and Ahsa (2005) reported that more adolescent males than females had had intercourse. Similar findings were reported by Santelli et al. (2004) that males were more likely to initiate intercourse than females. Although this chapter did not focus on the differences between gender in their sexual behaviours, the findings concerning differences between males and females in their sexual behaviours is nonetheless important. The findings that adolescent males are more likely to initiate intercourse than females, may explain the relations between perceived sexual behaviours of friends and the adolescent involvement in sexual behaviours as found in this study (see Figure 6.5a). Because male young people think that an involvement in sexual behaviours is important, they would have a tendency to engage in

certain sexual behaviours if they thought that their friends were doing the same. This finding, however, seems different from that of Connolly and Goldberg (1999), in which girls, compared to boys, were more influenced by friendship in their sexual behaviours. However, perceiving that friends are involved in sexual behaviours is different from friendship investment. While Connolly and Goldberg examined friendship involvement and not perception of friends' sexual behaviours, the two may be related to each other.

Murphy, Rotheram-Borus, and Reid (1998) found that female adolescents (aged 14-21) perceived more positive attitudes of peers toward safe-sex practices, and females also had higher self-efficacy in planning to avoid risky situations. This finding is similar to what was found in this Central Java study, where refusal efficacy significantly reduced female involvement in sexual behaviours (see Figures 6.5b and Table 6.2b). This result may indicate that *not being involved in sexual behaviours* is important for young females in Central Java or in Indonesia in general. Being virgin until marriage is often required for females, and it is often stressed by parents.

Similarly, in a different field of health behaviours, Trudeau, Lillehoj, Spoth, and Redmond (2003) found that refusal intention were negatively associated with later substance use among early adolescent students (Mean age of 12.3 years). Although the age and health area are different from those of the Central Java study, the findings of Trudeau et al. may also explain the role of refusal in the sexual behaviours of young females.

The result that the sexual behaviours of males was highly related to courtship efficacy shows a typical traditional gender role in which males are supposed to be active in their (sexual) relationships. Another finding that the sexual behaviours of females are associated with their refusal efficacy also shows a typical gender role in interpersonal and sexual relationships, in which females are *not* the persons who initiate sexual behaviours in a dyadic context. Whether or not they will be involved in the sexual behaviours is partly (about 9%) explained by their refusal efficacy. Another interesting finding concerns the role of romantic relationships in predicting involvement in dyadic sexual behaviours. At the final step of hierarchical regression analyses, the correlation between one's own romantic experiences and dyadic sexual behaviours were $\beta=0.22$ and $\beta=0.34$ (both significant at 0.01), for males and females, respectively. These results may indicate that, compared to males, females are more likely to place involvement in dyadic sexual behaviours within the context of romantic relationships.

4.3. Minimum contribution of knowledge

This study found that the relation between knowledge about sexual matters and psychosexual problems is very minor (see Tables 6.1a and 6.1b). Adolescents with more knowledge about sexual matters are less likely to report frequent psychosexual problems, but the relation between those variables is very low (the absolute correlation coefficients between 0.01 and 0.30). It is also possible that knowledge about sexual matters is associated with adolescent sexuality in general, but such associations can not be tested in this study because no relevant data are available. However, this study suggests that there are other aspects, and *not only knowledge*, which are related to adolescent sexuality and interpersonal relationships. Teitelman (2004) found that finding meaning behind biological process (in the research: menarche) is very helpful for young people (in the research: girls) to have positive experiences with sexual development. Finding meaning in a sexual experience can be included in intrapsychic sexual script as described by Simon and Gagnon (1986). Finding meaning and intrapsychic processing of sexual development are much more general than just knowing about what happens and what to do.

It seems that knowledge about sexual matters is important but not sufficient. According to Bandura (1997), for example, self-efficacy is important for adolescents to bring

their knowledge about sexuality into practice. However, several manuals for developing adolescent reproductive health published by Indonesian government in cooperation with other national and international institutions often place too much emphasis on knowledge about sexuality (e.g. Moeliono et al., 2004; Tanjung et al., 2003; Moeliono, 2003). The topics of knowledge covered in the manuals are mostly about biological aspects of sexuality, HIV/AIDS, and sometimes also drugs. Topics about communication and life skills are also covered in some manuals, but receive much less space and attention. Considering the findings of this study, manuals on adolescent sexuality should also include other topics such as identity, friendship, and self-efficacy.

4.4. Methodological notes: strengths and weaknesses

Not all topics discussed in this chapter were available in the large in-school data set. It is unfortunate that the in-school large-scale survey did not cover the sexual behaviours of adolescents. However, for a “political” reason, i.e. to be permitted to do the research in schools, explicit questions were not included in the in-school survey. To obtain data about sexual behaviours, the out-school setting was chosen, but with much smaller number of participants. Comparisons of some results showed that the two groups of adolescents had very similar patterns in their romantic relationship and efficacy. Therefore, the use of two groups of participants and two different settings of data gathering can be regarded as a strength of this research, in that the findings were shown to generalize across settings and samples.

Another methodological note concerns the hypothesised models in relation to the design of this study. Many of the relations between variables in the models use unidirectional relations, implying an assumption of causal relationships. Such an assumption, however, can not be verified in this study because this research used single point data collection. This study can only verify the *correlations* between variables in the models, *not cause-effect relations*. Research with longitudinal or experimental designs are needed to verify the hypothesised causal relationships of the models.

References

- Archibald, A. B., Graber, J. A., & Brooks-Gunn, J. (2003). Pubertal processes and psychological growth in adolescence. In G. R. Adams & M. D. Berzonsky (Eds.). *Blackwell Handbook of Adolescence*. Malden: Blackwell Publishing.
- Aspy, C. B., et al. (2007). Parental communication and youth sexual behaviour. *Journal of Adolescence*, 30, 449-466.
- Bandura, A. (1997). *Self-efficacy: The Exercise of Control*. New York: W. H. Freeman and Company.
- Bryan, A., Schindeldecker, M. S., & Aiken, L. S. (2001). Sexual self-control and male condom use outcome beliefs: Predicting heterosexual men’s condom-use intentions and behaviour. *Journal of Applied Social Psychology*, 31, 1911-1938.
- Collins, W. A. (2003). More than myth: The developmental significance of romantic relationships during adolescence. *Journal of Research on Adolescence*, 13, 1-24.

- Connolly, J., & Goldberg, A. (1999). Romantic relationships in adolescence: The role of friends and peers in their emergence and development. In W. Furman et al. (Eds.), *The Development of Romantic Relationships in Adolescence* (pp 266-290). New York: Cambridge University Press.
- Crockett, L. J., Raffaelli, M., & Shen, Y.L. (2006). Linking self-regulation and risk proneness to risky sexual behaviour: Pathways through peer pressure and early substance use. *Journal of Research on Adolescence*, 16, 503-525.
- Furman, W., & Shaffer, L. (2003). The role of romantic relationships in adolescent development. In P. Florsheim (Ed.), *Adolescent Romantic Relations and Sexual Behavior: Theory, Research, and Practical Implications*, pp. 3-22. Marwah, New Jersey: Lawrence Erlbaum Associates.
- Heinrich, L. B. (1993). Contraceptive self-efficacy in college women. *Journal of Adolescent Health*, 14, 269-276.
- Hull, T. H. & Budiharsana, M. (2001). Male circumcision and penis enhancement in Southeast Asia: Matters of pain and pleasure. *Reproductive Health Matters*, 9, 60-67.
- Kinsman, S. B., Romer, D., Furstenberg, F. F. & Scwartz, D. F. (1998). Early sexual initiation: The role of peer norms. *Pediatrics*, 102, 1185-1192.
- Lewis-Beck, M. S., Bryman, A., & Liao, T. F. (Eds.). (2004). *The Sage Encyclopedia of Social Science Research Methods. Vol. 3*. Thousand Oak, CA: Sage Publications.
- Moeliono, L. (2003). *Manual Untuk Fasilitator: Proses Belajar Aktif Kesehatan Reproduksi Remaja, Bahan Pegangan untuk Memfasilitasi Kegiatan Belajar Aktif untuk anak dan Remaja Usia 10-14 tahun (Manual for Facilitators: Facilitating Active Learning about Reproductive Health for 10-14 year-old adolescents)*. UNFPA, National Family Planning Coordination Board, and Indonesian Planned Parenthood Association.
- Moeliono, L., et al. (2004). *Materi KIE-KRR melalui media enter-educate (Materials for Information, Education, and Communication of Adolescent Reproductive Health with media enter-educate)*. Jakarta: The National Family Planning Coordination Board, in cooperation with the World Bank.
- Murphy, D. A., Rotheram-Borus, M. J., & Reid, H. M. (1998). Adolescent gender differences in HIV-related sexual risk acts, social-cognitive factors and behavioural skills. *Journal of Adolescence*, 21, 197-208.
- Salkind, N. J. (Ed.). (2007). *Encyclopedia of Measurement and Statistics. Vol. 3*. Thousand Oak, CA: Sage Publications.
- Santelli, J. S., et al. (2004). Initiation of sexual intercourse among middle school adolescents: The influence of psychosocial factors. *Journal of Adolescent Health*, 34, 200-208.

- Schwarzer, R. (1992). Self-efficacy in the adoption and maintenance of health behaviours: Theoretical approaches and a new model. In R. Schwarzer (Ed.). *Self-efficacy: Thought Control of Action*. Washington, etc.: Hemisphere Publishing Corporation.
- Schwarzer, R. (1999). Self-regulatory processes in the adoption and maintenance of health behaviours: The role of optimism, goals, and threats. *Journal of Health Psychology*, 4, 115-127.
- Schwarzer, R., & Fuchs, R. (1995). Changing risk behaviours and adopting health behaviours: The role of self-efficacy beliefs. In A. Bandura (Ed.). *Self-efficacy in Changing Societies* (pp.259-288). Melbourne: Cambridge University Press.
- Setyonaluri, D. H., Kusumaryani, M. S. W., Antarwati, E., Tobing, H. M., & Ahsa, A. (2005). Laporan hasil temuan survei pemahaman kesehatan reproduksi dan perkawinan usia dini. Kerjasama Badan Koordinasi Keluarga Berencana Pemerintah Propinsi Daerah Khusus Ibukota Jakarta dengan Lembaga Demografi Fakultas Ekonomi Universitas Indonesia (Reports of findings of the survey on reproductive health knowledge and early marriage. A joint cooperation between the Family Planning Coordination Board of the Jakarta City and the Demographic Institute, Faculty of Economics, University of Indonesia.). *Unpublished research report*.
- Shulman, S. (1993). Close relationships and coping behaviour in adolescence. *Journal of Adolescence*, 16, 267-283.
- Silver, E. J., & Bauman, L. J. (2006). The association of sexual experience with attitudes, beliefs, and risk behaviours of inner-city adolescents. *Journal of Research on Adolescence*, 16, 29-45.
- Simon, W., & Gagnon, J. H. (1986). Sexual scripts: permanence and change. *Archives of Sexual Behavior*, 15, 97-120.
- Steinberg, L. (2002). *Adolescence*. (6th ed). New York: McGraw-Hill.
- Tandjung, A., et al. (2004). *Modul untuk Fasilitator: Proses Belajar Aktif Kesehatan Reproduksi Remaja, untuk Orang tua remaja dan Guru SLTP/SMU (Modules for Facilitators: Process of Active Learning about Adolescent Reproductive Health, for parents and High School Teachers)*. Indonesian Planned Parenthood Association, in cooperation with National Family Planning Coordination Board and UNFPA.
- Teitelman, A. M. (2004). Adolescent girls' perspective of family interactions related to menarche and sexual health. *Qualitative Health Research*, 14, 1292-1308.
- Trudeau, L., Lillehoj, C., Spoth, R., & Redmond, C. (2003). The role of assertiveness and decision making in early adolescent substance initiation: mediating processes. *Journal of Research on Adolescence*, 13, 301-328.

**Indonesian Adolescent Sexuality and Romantic Relationships:
Exploratory Studies**

Chapter 7:

**PROVIDING INFORMATION ABOUT SEXUALITY AND
RELATIONSHIPS**

**Adolescent Preferences according to Students, Teachers, Parents, and Young
Adults**

Chapter 7

PROVIDING INFORMATION ABOUT SEXUALITY AND RELATIONSHIPS

Adolescent Preferences according to Students, Teachers, Parents, and Young Adults

1. Introduction

It was reported in previous chapters, especially Chapter 3 and Chapter 6, that adolescents' knowledge about sexual matters was negatively correlated with age, although the correlations were very low ($r=-0.05$ and $r=-0.11$, $p<0.01$). This means that younger adolescents are slightly more well-informed about sexual matters than older adolescents. In addition to information about sexuality, adolescents in romantic relationships also learn how to manage such relationships from others, especially peers (Connolly & Goldberg, 1999; cf. Furman & Shaffer, 2003; Wellings & Field, 1996). Many other studies, including those done in Indonesia, have also found that adolescents make use of various sources of information about sexual matters. While friends are the main source of information for young people (Winarno, 2003; Hatmadji & Rochani, 1995; Wellings & Field, 1996), other information sources include mass media, school, parents, and other figures or institutions. Several types of mass media (radio, newspaper, tabloid, magazine) in Indonesia provide facilities for young people for consultation about various topics, including friendship, *pacaran* (romantic relationship), and sexual health. In line with the development of information technology, adolescents, especially in urban areas, often access the internet for information about sexuality. While friends are adolescents' preferred source of information about sexuality and romantic relationships, identifying other sources of information used by adolescents is important, especially if it is associated with educational interests.

Each information source and information exchange process has specific characteristics. Friends, for example, are often available and accessible for young people to talk about sexual things or about their romantic relationships. The process of information exchange between friends is usually informal and egalitarian, and therefore preferred by many young people. However, the friends, who are assumed to be young too, may be no better informed about the topics being discussed. Older figures such as parents, teachers, health providers, and counsellors, might have more experiences and might have more correct information about sexuality and romantic relationships, but are not easily approachable. It was found by Adioetomo et al. (1999) that Indonesian adolescents prefer to find information from their peers rather than from older figures, because older figures were usually judgemental about adolescents' behaviours. Obtaining information from non-personal sources such as mass media and the internet is characterised by impersonality and privacy. Therefore adolescents might feel free and secure to access information from these types of sources. The internet has additional advantages related to sexual information, namely explicit photos and videos. Related to the information sources and information exchange process, there is a question regarding the characteristics of sources and processes which make them attractive options for adolescents to consult.

Sexuality has many aspects: biological, psychological, cultural, social, moral, legal, and health. Some Indonesian manuals for developing adolescent sexuality have emphasized the biological aspects of adolescent sexuality (e.g. Moeliono et al., 2004; Tanjung et al., 2003; Moeliono, 2003). A series of 25 readers published in 2000 by the Indonesian Department of Education covers many aspects of adolescent lives, including reproductive health, communication, healthy relationship, and risk behaviours. These books were developed for high school students by the Adolescent Health Project (*Proyek Kesehatan Remaja*), which is under the Centre for Physical Quality Development of the Department of Education. Because these series of readers were developed by the Department of Education, the books have educational interests. It is unclear whether the books are accessible and

attractive for young people, and whether the topics covered in the readers are actually needed by young people.

This chapter will deal with questions about the information sources preferred by young people, the characteristics of information sources or information exchange process preferred by young people, and the content of information or the training which should be included to meet the needs of adolescents in dealing with their sexuality and interpersonal relationships. The purpose is to get input from several concerned groups involved in adolescent development regarding on how programs aimed for adolescents, especially related to their sexuality and interpersonal development, should be developed.

2. Method

2.1. Participants

This study was carried out in six regions in Central Java, as has been described in the previous chapters. Those regions are Semarang City, Pekalongan City, Semarang Regency, Kudus Regency, Kebumen Regency, and Pemalang Regency. Four groups of participants were recruited for this study: senior high school students, senior high school teachers, parents, and young adults. The *students* were selected from 65 schools in the six regions. The types of schools included public, Islamic, Catholic, Protestant, and national schools. The *teachers* were recruited from the same schools as the participating students. They were mostly married (84.2%). Twenty percent of the teachers had at least one child aged 15-19, i.e., as old as the average Senior High School student. The *parents* recruited had to have at least one adolescent child (aged 11-20 years), while the *young adults* were not married. Among the young adults, 49% were university students, 38% working, and the rest were unemployed. More than half of them (54%) had brother(s) or sister(s) aged 15-19 years. The other characteristics of the recruited participants are summarised in Table 7.1 and Table 7.2.

Table 7.1: Age and gender composition of each group of participants

Groups of Participants	Number	Age range (Years)	Age Mean (Years)	Percentage Male : Female
Adolescents	10608	14-20	16.8	46 : 54
Teachers	591	21-67	37.8	51 : 49
Parents	382	35-67	45.5	42 : 58
Young Adults	341	21-25	22.5	53 : 47

Table 7.2: Religious affiliation of the participants according to their groups (%).

Groups of Participants	Religious Affiliation (%)			
	Islamic	Catholic	Protestant	Others
Adolescents	79	8	11	2
Teachers	74	14	11	-
Parents	64	18	16	2
Young Adults	70	17	13	1

2.2. Measurement

This study used a questionnaire to collect the data. Some questions were asked to all participants and several questions were for specific groups of respondents. The specificity of the questions had to do with the relevance of the topic for the respective participants.

2.2.1 Questions for all participants

Information sources preferred by senior high school students. This measure consisted of 15 potential sources of information about sexual matters. The information sources include friends, older figures, institutions, and mass media. A similar measure, with fewer options on the list, had been tried out in the pilot study. The participants ranked the sources in terms of adolescents' preference from rank order 1 as first choice to rank 15 as the last.

Characteristics of information sources and information exchange process. Fourteen personal and process characteristics were to be rated in terms of its importance for adolescents. The list was based on the results of the pilot study, in which respondents were asked about their reasons or considerations when accessing various sources of information about sexual matters. An open question had been used to obtain reasons for choosing certain sources. Examples of list items are: mutual trust, openness, and experience. The participants rated each item on the list in terms of whether it was "Not important at all" (1), "No important" (2), "Rather important" (3), "Important" (4), or "Very important" (5).

Information and training related to adolescent sexual development. A list of 25 items was used to assess participants' perception of the importance of certain topics for the sexual development of adolescents. The list was based on the results of the pilot study with senior high school students and teachers which used an open question to investigate the needs related to adolescent sexual development. Examples of the listed topics are: reproductive process, meaning of sexuality, and risks of sexual behaviours. The participants were asked to rate the extent to which the listed topics were helpful for adolescents to understand adolescents' development, especially concerning reproductive matters and sexual development. A 5-point scale rating importance was again used.

Information and training related to adolescent interpersonal development. Based on the pilot study with students and teachers, a list of 35 topics related to adolescent interpersonal development was constructed. The list included understanding others' feelings, developing a relationship with boyfriend/girlfriend, and dealing with problems associated with a relationship break up. Participants were asked to indicate the degree to which each topic would be helpful for adolescents to build relationships with others. The response format was the same as described above for the other questions.

2.2.2. Questions for specific groups

Sexuality education in schools. An item concerning the need for sexuality education in senior high school was given to teachers, parents, and young adults. The original phrase used in the questionnaire was "*pendidikan kesehatan reproduksi*" (reproductive health education) because that term is often used instead of the phrase sexuality education. Reproductive health education is more often used so as to minimise the sexual connotation. There were four response options, namely "Not needed at all" (coded 1), "Not needed" (coded 2), "Needed" (coded 3), and "Very much needed" (coded 4).

Facilitator for sexuality education. The questionnaire for teachers included an item asking "if, in this school, there is a course on reproductive health and self-development, who would be the best teacher?". The five response options were "Biology teachers" (coded 1), "Teachers of religious education" (coded 2), "School counsellors" (coded 3), "Teachers specific for that subject" (coded 4), and "Others....." (coded 5). Many respondents, however, chose more than one of the available options.

Delivering sexuality education. Another question specifically for teachers was "if, in this school, there is an education on reproductive health and self-development, how should it be taught?". The six response options were "As a specific subject" (coded 1), "Included in Biology" (coded 2), "Included in Religious education" (coded 3), "Included in Guidance and

Counselling” (coded 4), “Included in other related subjects” (coded 5), and “As an extra-curricular activity” (coded 6). Again, many teachers chose more than one of the options.

3. Results

The results will be presented according to topics of investigation. The results on information sources will be presented first, followed by a summary of the characteristics of information sources or processes preferred by adolescents. Finally, education practices will be summarized, including important contents or topics of the education programs as related to adolescent sexuality and interpersonal relationships and how to implement these programs.

3.1. Preferred sources of information about sexual matters

3.1.1. Descriptive reports

To examine which sources of information are preferred by adolescents, the rankings of each source was summed across all participants and then recoded in ascending rank order. The most preferred source is ranked 1, the second is ranked 2, and so on. The results of the descriptive analyses for students are presented in Table 7.3.

Table 7.3: The sources of information about sexual matters preferred by all adolescents and by each gender (ranked) on the basis of averaged ranks

No.	Sources (Listed or ranked from the most preferred by adolescents in general)	All Students (N=10156)	Males (N=4614)	Females (N=5529)
1.	Friends	1	1	1
2.	Magazines	2	2	2
3.	Other adults	3	4	5
4.	Teachers	4	6	4
5.	Close/intimate friends	5	5	6
6.	Newspaper	6	3	7
7.	Mother	7	8	3
8.	Older brother/sister	8	9	8
9.	Father	9	10	9
10.	Religious figures	10	11	10
11.	Youth centres	11	12	11
12.	Medical staffs	12	13	12
13.	Internet	13	7	14
14.	Psychologists/counsellors	14	14	13
15.	Other sources (radio, books, etc)	15	15	15

As shown in Table 7.3 friends, magazines, adults, teachers, and close friends were the most preferred sources. Psychologists/counsellors, medical staffs, youth centre, religious figures, and internet were among the least preferred sources. Relatives (mother, father, and older brother/sister) were ranked between these extremes. Agreement between gender is moderately high (Kendall’s tau=0.70, and Spearman rho=0.82; both significant at 0.01). The salient differences between gender rankings concern the rank position of newspaper, mother, and internet. Newspaper and internet were much preferred by male adolescents (ranked 7) than by females (ranked 7). Males ranked internet seventh, compared to a rank of fourteenth

by females. The mother is much preferred by females (ranked 3) than by males (ranked 8) as a source of sexual information.

Table 7.4: The sources of information about sexual matters preferred by all adolescents according to each group of respondents on the basis of averaged ranks

No.	Sources (Listed or ranked from the most preferred by adolescents)	Adolescents (N=10156)	Teachers (N=591)	Parents (N=382)	Young Adults (N=341)
1.	Friends	1	1	2	1
2.	Magazines	2	2	3	2
3.	Other adults	3	7	9	5
4.	Teachers	4	5	4	6
5.	Close/intimate friends	5	3	5	3
6.	Newspaper	6	4	7	4
7.	Mother	7	6	1	7
8.	Older brother/sister	8	9	8	8
9.	Father	9	10	6	10
10.	Religious figures	10	14	10	13
11.	Youth centres	11	11	13	11
12.	Medical staffs	12	12	11	12
13.	Internet	13	8	12	9
14.	Psychologists/counsellors	14	13	14	14
15.	Other sources (radio, books, etc)	15	15	15	15
	Within group concordance (Kendall's W)	0.26**	0.34**	0.23**	0.30**
	Concordance with adolescents' ranking (Kendall's tau)	-	0.73**	0.71**	0.81**
	Spearman correlation with adolescents' ranking	-	0.88**	0.84**	0.93**

** Significant at 0.01

Descriptive analyses on each group of participants showed that there were not many differences among the groups in their perceptions of adolescent preferences in sources of sexual information (see Table 7.4). As seen in the Table, the coefficient of concordance between adolescents' rank and others' group ranks are 0.73, 0.71, and 0.81 (all significant at 0.01) for teachers, parents, and young adults, respectively. The most salient difference between the groups is parents' perception of the role of the mother as a desirable source of sexual information. According to parents, the mother is the most preferred source, while according to adolescents' report and the perceptions of teachers and young adults, the mother is in the sixth or seventh rank in the list. Parents also thought that the father is moderately preferred (ranked 6) by adolescents as an information source, while according to three other groups the father was ranked lower (ranked 9 or 10). On the other hand, parents and teachers underestimated the role of other adults as information sources preferred by adolescents. Teachers also underestimated the degree of preference for religious figures by adolescents. In contrast, teachers overestimated the preference for newspaper and internet. They did accurately rank themselves in relation to adolescent preferences for sources of sexual information. Young adults also overestimated newspaper and internet as preferred information sources by adolescents.

3.1.2. Examining Within-group concordances

Table 7.4 shows that within-group concordance in each participant group was low. The Kendall's coefficients were $W=0.26$, $W=.34$, $W=0.23$, and $W=0.30$ (all significant at 0.01) for adolescents, teachers, parents, and young adults, respectively. These results indicate that between-respondent variation in rank order of sources of information in each group was high. One can ask, then, whether in each group of participants there were sub-groups that exhibited less within-group variation or, in other words, in which within-sub group concordance is high. To answer this question an effort was made to group the participants in homogenous sub-groups.

Sub-grouping was done in several steps. In the first step, the 1-15 rank order was recoded into two categories. The three highest ranks were recoded as 2, while the remaining were recoded as 1. Sources of information which were not ranked by respondents were included in the second group, and scored 1. Second, the recoded variables were cluster analyzed. Hierarchical cluster analyses with Ward's method were done separately for each group of participants (adolescents, teachers, parents, and young adults). The analyses found four clusters of adolescents, three clusters of teachers, three clusters of parents, and four clusters of young adults.

After a cluster solution was selected, the contribution of each information source to the between-cluster differences was evaluated. To indicate the difference between clusters for each source of information, Chi-square and Cramer's Phi were used. The cluster solution of each group was cross-tabulated with the 2-ranked sources of information. The results of cross-tabulation for each group of respondents are presented in Table 7.5 to Table 7.8. Each cell of the Tables gives the percentage of participants in a given cluster who ranked the information source as in the top three preferences.

As shown in Table 7.5, many adolescents in every cluster rated friends as one of the three most preferred sources of information about sexual matters. The clusters differed in terms of the other preferred sources. Adolescents in cluster 1 rated magazines and newspapers as the most preferred sources of information for adolescents. Adolescents in cluster 2 are characterized by a relative preference for close/intimate friends and other adults for information about sexual matters. Cluster 3 is characterized by a preference for other family members, such as the mother, father, and older brother/sister. Adolescents in cluster 4 preferred teachers and magazine in addition to friends as information sources. These clusters can be interpreted as follows. Cluster 1 contains adolescents who prefer to find information on their own, and mainly from non-personal sources (magazines and newspapers). Pooled into cluster 2 are adolescents who also prefer to find sexual information by themselves, especially from peers (friends, other adults, and close friends). Cluster 3 consists of adolescents who preferred family (mother, father, and older brother/sister) while adolescents in cluster 4 preferred school related sources, such as teachers, friends, and also magazines. These clusters can be identified as cluster A (non-personal preference), cluster B (peer preference), cluster C (family preference), and cluster B (school preference). This terminology will be used in comparisons with cluster analyses of the other groups of participants. Illustrated in Figure 7.1 is the profile of adolescents' preference of information sources. The numbers associated with information sources are (1) close/intimate friends, (2) friends, (3) mother, (4) father, (5) older brother/sister, (6) other adults, (7) medical staff, (8) psychologists/counsellors, (9) youth centre, (10) teachers, (11) religious figures, (12) magazines, (13) newspaper, (14) internet, and (15) other sources.

Table 7.5: The percentages of *adolescents* in each cluster who rated the specific sources in the first three most preferred by themselves

Information Sources	Cluster1 (n=161)	Cluster2 (n=125)	Cluster3 (n=158)	Cluster4 (n=125)	χ^2	ϕ
Close friends	28	58	20	15	**	.34**
Friends	72	89	43	52	**	.36**
Mother	1	5	98	2	**	.94**
Father	1	3	37	2	**	.49**
Brother/sister	4	20	32	8	**	.31**
Other adults	7	61	16	6	**	.53**
Medical staff	1	8	1	13	**	.23**
Psychologists	2	2	3	14	**	.23**
Youth Centre	3	4	3	16	**	.23**
Teachers	0	10	18	68	**	.61**
Religious figures	3	4	6	15	**	.18**
Magazines	91	18	18	39	**	.63**
Newspaper	53	6	4	11	**	.52**
Internet	17	8	1	6	**	.24**
Other sources	7	2	1	1	**	.15**
Kendall's W (2-rank scores)	.51**	.42**	.38**	.26**		
Kendall's W (with ordinal data)	.46**	.42**	.42**	.28**		

* significant at 0.05; ** significant at 0.01, n.s.. not significant

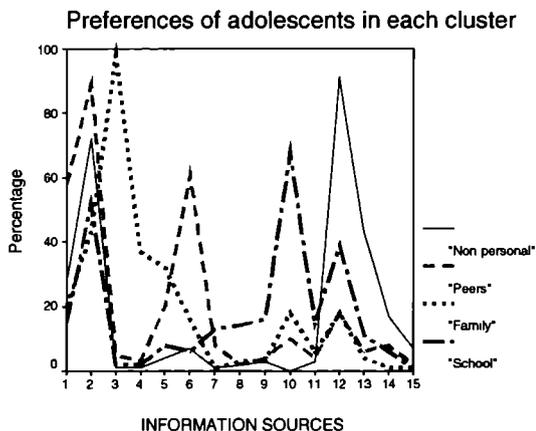


Figure 7.1: Information sources preferred by adolescents in each cluster

Table 7.6: The percentages of *teachers* in each cluster who rated the specific sources in the first three most preferred by adolescents

Information Sources	Cluster1 (n=149)	Cluster2 (n=194)	Cluster3 (n=178)	χ^2	ϕ
Close friends	89	16	23	**	.65**
Friends	95	38	38	**	.52**
Mother	12	6	24	**	.22**
Father	2	1	15	**	.28**
Brother/sister	3	1	8	**	.17**
Other adults	7	1	11	**	.17**
Medical staff	0	2	10	**	.23**
Psychologists	0	2	13	**	.25**
Youth Centre	1	1	8	**	.17**
Teachers	0	4	32	**	.43**
Religious figures	0	3	3	n.s.	n.s.
Magazines	46	98	35	**	.58**
Newspaper	13	96	1	**	.89**
Internet	20	25	8	**	.18**
Other sources	11	9	8	n.s.	n.s.
Kendall's W (2-rank scores)	.58**	.64**	.10**		
Kendall's W (with ordinal data)	.51**	.53**	.17**		

*) significant at 0.05, ** significant at 0.01, n.s. not significant

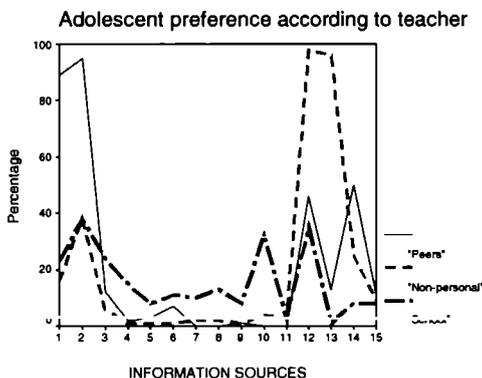


Figure 7.2: Information sources preferred by adolescents according to teachers

The results of the cross-tabulations of teachers' data is presented in Table 7.6. Cluster 1 includes teachers who believed that friends, close friends, and magazines are the preferred information sources of adolescents. This cluster resembles cluster B of adolescents, and will likewise be termed cluster B. Teachers pooled in cluster 2 rated magazines and newspapers as the most preferred sources for adolescents, and resembles cluster A of adolescents, and is likewise called cluster A. Cluster 3 is characterized by friends, teachers, and magazines as the most preferred sources of information about sexual matters by adolescents. This cluster

resembles adolescents' in cluster D. The profile of teachers' rating of information sources preferred by adolescents is illustrated in Figure 7.2.

The results of the cross-tabulations of parents' data is presented in Table 7.7. Parents in cluster 1 rated friends, close friends, magazines, and newspapers as the information sources most preferred by adolescents. As this cluster profile combines cluster A and cluster B found in adolescents and teachers, this parent cluster can be named cluster AB. Parents in cluster 2 rated the mother, father, teachers, and brother/sister as adolescents' preferred sources of information about sexual matters. This cluster has no parallel in adolescents' or teachers' clusters, and so will be called cluster E. Parent cluster 3 ranks teachers, friends, and magazines as the preferred sources of information. This cluster resembles cluster D of adolescents and cluster D of teachers, and will also be designated cluster D. The profiles of parent clusters is presented in Figure 7.3.

Table 7.7: The percentages of *parents* in each cluster who rated the specific sources in the first three most preferred by adolescents

Information Sources	Cluster1 (n=119)	Cluster2 (n=147)	Cluster3 (n=99)	χ^2	ϕ
Close friends	37	22	7	**	.28**
Friends	74	27	30	**	.43**
Mother	10	88	22	**	.72**
Father	1	58	3	**	.64**
Brother/sister	3	32	1	**	.43**
Other adults	9	8	11	n.s.	n.s.
Medical staff	2	1	18	**	.31**
Psychologists	0	1	14	**	.29**
Youth Centre	0	7	10	**	.25**
Teachers	1	39	58	**	.49**
Religious figures	1	9	15	**	.21**
Magazines	77	5	39	**	.64**
Newspaper	40	1	19	**	.34**
Internet	23	1	4	**	.33**
Other sources	8	3	1	*	.15*
Kendall's W (2-rank scores)	.43**	.39**	.17**		
Kendall's W (with ordinal data)	.40**	.42**	.22**		

* significant at 0.05, ** significant at 0.01, n.s. not significant

Adolescent preference according to parents

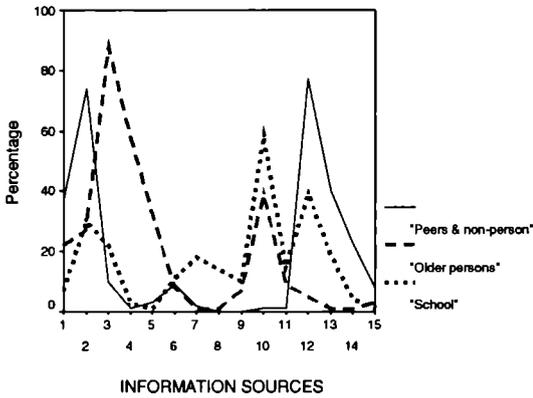


Figure 7.3: Information sources preferred by adolescents according to parents

Table 7.8: The percentages of *young adults* in each cluster who rated the specific sources in the first three most preferred by adolescents

Information Sources	Cluster1	Cluster2	Cluster3	Cluster4	χ^2	ϕ
Close friends	52	57	14	32	**	.37**
Friends	100	65	44	42	**	.43**
Mother	7	3	2	97	**	.90**
Father	2	2	0	43	**	.65**
Brother/sister	5	11	0	23	**	.28**
Other adults	0	43	4	12	**	.47**
Medical staff	0	12	2	3	**	.22**
Psychologists	0	8	2	0	**	.19**
Youth Centre	0	16	2	2	**	.28**
Teachers	30	11	13	18	**	.19**
Religious figures	5	9	1	3	*	n.s.
Magazines	83	17	96	11	**	.77**
Newspaper	0	12	76	0	**	.75**
Internet	2	12	38	2	**	.42**
Other sources	10	7	3	2	n.s.	n.s.
Kendall's W (2-tauk scores)	.63**	.24**	.45**	.43**		
Kendall's W (with ordinal data)	.41**	.29**	.41**	.45**		

* significant at 0.05; ** significant at 0.01; n.s : not significant

The results of the cross-tabulations of young adults' data are presented in Table 7.8. Young adults in cluster 1 rated friends, close friends, and magazines as the sources most preferred by adolescents. These sources are personal (peers) as well as non-personal (magazines). This profile to some extent resemble a combination of cluster A and B, and hence can be named cluster AB. Young adults in cluster 2 rated friends, close friends, and

other adults as the most preferred sources of sexual information, which is the same as cluster B. Magazines, newspaper, internet, and also friends were judged by respondents in cluster 3 as the most preferred sources. Most of the sources are non-personal, so this cluster is the same as cluster A. Many young adults in cluster 4 rated the mother, father as well as friends and close friends as the information sources most preferred by adolescents. However, more young adults in this cluster ranked family sources (mother and father, 97% and 53%, respectively) highest than friends and close friends (42% and 32%, respectively). Therefore, this cluster can be named as cluster C. Illustrated in Figure 7.4 is the profile of young adults' ratings of information sources preferred by adolescents.

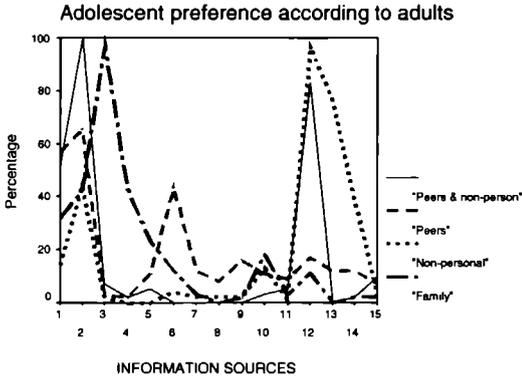


Figure 7.4: Information sources preferred by adolescents according to young adults

In summary, six clusters participants were found, differing their perceptions of which information sources were preferred by adolescents: preference for non-personal sources (cluster A), personal sources (cluster B), family (cluster C), school-related sources (cluster D), older people (cluster E), and a combination of personal and non-personal sources (cluster AB). Among the 14 sources of information about sexual matters, medical staff, psychologist, youth centre, and religious figures were rated as most preferred by, at best, only a small number of participants in any of the clusters. Concordance analyses using Kendall's W were performed on each cluster of each group with two types scores; one uses dichotomous data (2-rank data), the other uses ordinal data (original 15-rank data). The results are presented in Tables 7.5 to 7.8. It was found that the clustering generally improved the concordance coefficients although the within-cluster concordances were not as high as expected. Some concordances, however, remain low, even lower than the non-clustered concordances.

It can now be asked whether the clusters are associated with socio-demographic backgrounds of the participants. To answer this question, the clusters of each group of participants were cross-tabulated with socio-demographic variables. The region and religion factors were applicable for all groups of participants, while age was only tested on adolescents, and school type was analysed in relation to teachers. The adolescents' ages were categorised into three age groups, namely 14-15 years (category 1), 16-18 years (category 2), and 19-20 years (category 3). To make a decision, Chi-square analyses were performed to determine whether the cross-tabulated distributions are significant. The analyses found that the clusters of each participant group were not associated with region and religion. The clusters of adolescents were also not associated with age. Gender differences were found only in adolescents' clusters ($\chi^2=39.87$; $p<0.01$) and parents' clusters ($\chi^2=13.52$; $p<0.01$).

Among adolescents, the salient difference between gender was found in cluster 3, where more female than male adolescents preferred the family (mother, father, and older brother/sister) as the sources of information about sexual matters (see Table 7.9). Among parents, the salient difference between gender was found in cluster 2 (“older people”) (see Table 7.10). This means that female parents are more likely to believe that adolescents prefer older relatives as sources of sexual information.

Table 7.9: Cluster distribution according to gender among *adolescents*

Gender of adolescents	Cluster 1 “non-personal”	Cluster 2 “peers”	Cluster 3 “family”	Cluster 4 “school”
Male	57%	58%	27%	42%
Female	43%	42%	73%	58%
Total	100%	100%	100%	100%

Table 7.10: Cluster distribution according to gender among *parents*

Gender of parents	Cluster 1 “peers and non-personal”	Cluster 2 “older people”	Cluster 3 “school”
Male	55%	33%	42%
Female	45%	67%	58%
Total	100%	100%	100%

A cross-tabulation and Chi-square test found that teachers were distributed differently in several school types (see Table 7.11). Salient differences were found in cluster 2 and cluster 3. In both clusters a higher proportion of public school teachers rated non-personal sources, especially magazine and newspaper (cluster 2), and school (cluster 3) as the information sources most preferred by adolescents. On the other hand only a small percentage of teachers in Protestant schools judged those sources to be preferred by adolescents.

Table 7.11: Cluster distribution according to school type among teachers

School type	Cluster 1 “peers”	Cluster 2 “non-personal”	Cluster 3 “school”
Public	26	40	37
Islamic	20	28	21
Catholic	21	12	16
Protestant	12	8	7
Female	22	11	19
Total	100%	100%	100%

3.2. Characteristics of information sources and information exchange process

All groups of participants were asked questions concerning the characteristics of information seeking process that were important. The participants rated the 14 listed characteristics in terms of their importance using a 5-point scale. Higher scores indicate that the characteristics are rated as more important. The results are summarised in Table 7.12.

The characteristics are listed from the most important according to adolescents. Presented in parentheses are the ranks of the characteristics in the rating of the respective groups of respondents.

Table 7.12: Important characteristics or atmospheres of information seeking process according to four groups of participants (Scale 1-5)

No.	Characteristics	Adolescents (N=10608)	Teachers (N=591)	Parents (N=382)	Young Adults (N=341)
1.	Privacy guaranteed	4.18	4.36 (2)	4.21 (5)	4.41 (1)
2.	Mutual trust	4.15	4.33 (3)	4.29 (4)	4.36 (2)
3.	Easily understandable explanation	4.11	4.28 (5)	4.30 (2)	4.28 (3)
4.	He/she knows more about sexuality	4.00	4.24 (6)	4.13 (6)	4.17 (6)
5.	Open or transparent in giving explanation	3.97	3.76 (11)	3.88 (11)	3.88 (10)
6.	The source is experienced	3.91	4.16 (7)	4.10 (7)	4.07 (7)
7.	Giving correct information	3.90	4.42 (1)	4.29 (3)	4.21 (5)
8.	He/she can understand the adolescents	3.85	4.31 (4)	4.30 (1)	4.25 (4)
9.	The source is accessible	3.78	3.98 (10)	3.95 (10)	3.98 (8)
10.	Non-judgemental	3.36	4.04 (9)	4.02 (9)	3.90 (9)
11.	Paying attention to adolescents	3.33	4.10 (8)	4.08 (8)	3.88 (11)
12.	Close relationship between the source and adolescents	3.24	3.38 (13)	3.53 (12)	3.37 (13)
13.	Knowing each other	3.21	3.14 (14)	3.44 (13)	2.95 (14)
14.	Pleasurable to do	3.18	3.57 (12)	3.41 (14)	3.42 (12)

Among the listed items, adolescents rated the guarantee of privacy, mutual trust, understandable explanation, more knowledge, and transparency in giving information as more important than the other characteristics, such as correctness of information, accessibility, relationships between the adolescents and the sources. It is also clear in the table that the differences between Means of the importance of characteristics are small. This result indicates that for adolescents process-related characteristics are more important than the subjective characteristics of the persons involved. The objectivity of information (“giving correct information”) is also less important compared to the process-related characteristics. It seems that, for adolescents, satisfying their curiosity in a safe condition is very important. They prefer open or transparent discussion about sexuality in a context of mutual trust and privacy. It seems that they do not think too much about who provides the information and whether the provided information is correct. It can be speculated that these results may explain adolescents’ preferences for friends and magazines as sources of information about sexual matters.

With teachers, however, the correctness of sexual information (“giving correct information”) was the most important for adolescents. The relative importance of “giving

correct information” was also reported by parents (ranked 3). These ratings by parents and teachers might be related to their concerns or responsibility about the adolescents’ future. According to them it is important that adolescents receive correct information about sexuality, so that the young people know the truth and are not misguided. It is apparent (see Table 7.12) that there is difference of opinion between adolescent on one hand and teachers, parents, and young adults on the other hand concerning the importance of openness or transparency in talking about sexuality. This difference may indicate the existence of tension between adolescents’ curiosity and the reluctance of older people to be open about sexual matters. The reluctance itself may be related to sex-related taboos which is often attributed to be held by older people. Again, one can speculate that this tension may explain why older people are not the first choices of adolescents as sources of information about sexual matters.

Another difference between adolescents and older people is whether an information provider should be empathetic (understanding) towards adolescents. According to adolescents, it is not very important that the information sources understand them, but according to older people, especially parents, it is important for adolescents to be in touch with empathetic sources of sexual information. A guarantee of privacy is the most important according to adolescents, young adults, and teachers, but according to parents privacy is less important than “understanding”, “correct information” and “understandable explanation”. These results, again, may indicate that dealing with curiosity about sexuality in a secure way (“how”) is more important for adolescents than the parties (“who”) from whom they get their information.

3.3. Contents of information and training related to sexual development

3.3.1. Psychometric analyses

As described earlier, the participants of the pilot study (students and teachers of a Senior High School in Semarang) were asked what are needed by senior high school adolescents to deal with their sexual and interpersonal development. The answers to the open questions were listed, and used in the survey. Twenty-five topics associated with reproductive matters and sexual development were listed and were rated by the participants in terms of their importance for adolescents. The results were first analysed psychometrically to determine whether the items organized into a simpler dimensional structure. The analyses were performed on the total sample as well as for each group separately (adolescents, teachers, parents, and young adults). For the factor analyses, 600 participants were randomly selected from the 10608 students, so as to minimise a possible influence of too many representatives from one group of participants on the results. The total number of participants included in the analysis was 1914 (adolescents=600; teachers=591; parents=382; young adults=341).

The factor analysis revealed five components explaining 54% of the total variance of the topics perceived as important for adolescent sexual development. The components can be interpreted as representing five topics which need to be included in educational programs related with adolescent sexual development. The five factor components were (a) dealing with sexual desires, (b) training on self-development, (c) reproductive organs and processes, (d) risks of sexual behaviours, and (e) sexuality and human development in general. Factor congruence analyses, using the overall data as the norm, revealed a high congruence between the factor loadings of each group and the factor loadings of overall data. The congruence coefficients were mostly greater than 0.90. Factor congruence coefficients lower than 0.90 were found on factor 5 of parents’ reports, with a congruence coefficient of 0.83, and on factor 3 and factor 5 of young adults’ ratings, with congruence coefficients of 0.89 and 0.75, respectively. Item congruence was also mostly greater than 0.90. Relatively low congruence was found in teachers’ data (3 items having a congruence of 0.81, 0.84, and 0.88), parents’

data (1 item with a congruence coefficient of 0.57, 1 item with 0.70, and 2 item 0.87), and adults' data (4 items, with coefficients of 0.67, 0.76, 0.84, and 0.87). The distributions of items over factors in the individual group analyses were very similar with that of overall group analysis. Because of the high congruency and similarity of item distributions over factors, further analyses were done with the overall data set. The *total raw scores* of each factor were used in the analyses.

Reliability analyses of the factor items using Cronbach's alpha revealed alphas between 0.60 and 0.83. The topics included in each factor and the results of reliability analyses are presented in Table 7.13.

Table 7.13: Topics included in each aspect and reliability of each aspect

Domains	No. of items	Reliability (Alpha)	Scale Mean (5-scale)	SD	Topics included
Dealing with sexual desires	7	0.81	3.82	0.70	Healthy sexual behaviours, sexual behaviours (masturbation, intercourse, etc.), managing sexual desires, sexual dysfunctions
Training on self-development	5	0.75	4.42	0.52	Developing self-esteem and self-confidence, understanding problems of adolescence, positive self-development, behaving in good manners
Reproductive organs and processes	7	0.76	4.04	0.58	Male and female reproductive organs, sexual development (menstruation, nocturnal emission, etc.), sexual hygiene
Risks of sexual behaviours	3	0.83	4.54	0.74	Physical, psychological, and social consequences of sexual behaviours (diseases, pregnancy, etc.)
Sexuality and human development in general	3	0.60	3.95	0.65	Human development from childhood to adulthood, meanings of sexuality, gender equity

Also shown in the table are the Mean importance ratings and standard deviations of each factor. The Means of the factors fall around 4. This means that all topics were rated by the respondents as important and between important to very important.

3.3.2. Comparisons based on socio-demographic background

The participants were recruited in six regions of Central Java, namely Semarang City, Pekalongan City, Semarang Regency, Kudus Regency, Kebumen Regency, and Pemalang Regency. The selected regions are associated with the rank of maternal mortality ratio (MMR), from the lowest MMR (Semarang City) to the highest MMR (Pemalang Regency). Other socio-demographic variables include gender and religious affiliation. Only the Islamic, Catholic, and Protestant religions will be included in the analyses because of the small number of participants affiliating with other religions.

To compare the participants from different backgrounds, the five factors related to sexual development were entered as the dependent measures in a MANOVA, and the

independent variables were participant group (4), region (6), religion (3), and gender (2). The analysis found only a significant main effect of gender with a partial Eta squared (estimated effect size) of 0.015. There were no main effects of group, region, and religion, and also no interaction effects. Further inspection on the MANOVA results revealed that the gender effect was found on the importance rating for training on self-development (factor 2), reproductive organs and processes (factor 3), and sexuality and human development in general (factor 5). There were no differences between gender in their perception of the importance of topics about “dealing with sexual desires” and “risks of sexual behaviours”. The complete results of the differences between gender are presented in Table 7.14. The presented results are based on the LSD (Least Significant Difference) analysis. As shown in the table, female respondents rated the three groups of topics as being slightly more important than their male counterparts. Overall there was a high agreement among the groups of respondents concerning the topics which are important for helping adolescents deal with their sexual development.

Table 7.14: Mean differences between males and females in rating the importance of domains related to adolescent sexual development

Aspects affected by gender	Means in 5-scale		SD	<i>p</i>
	Males (n=888)	Females (n=943)		
Training on self-development	4.35	4.52	0.52	0.000
Reproductive organs and processes	3.98	4.15	0.58	0.001
Sexuality and human development in general	3.87	4.13	0.65	0.000

Another MANOVA on the importance of the five factors related to sexual development was performed by entering the three age categories of adolescents as an independent variable. The analysis found no differences between the age categories in the ratings of importance of the five domains related sexual development.

3.4. Contents of information and training related to interpersonal development

3.4.1. Psychometric reports

The instrument used with regard to adolescent interpersonal development was constructed on the basis of the results of the pilot study. The pilot study used open questions to ask what is needed by adolescents in developing their (intimate) relationships with others. The responses were used to construct a list of 35 items to be rated on a 5-point scale, from “Not important at all” (1) to “Very important” (5). Analyses used the data set of 1914 respondents (600 adolescents, 591 teachers, 382 parents, and 341 young adults).

Factor analysis with Varimax rotation on overall data (1914 respondents) revealed four factors underlying adolescent interpersonal development: (a) guidance in self-management, (b) dealing with romantic relationships, (c) dealing with risky behaviours, and (d) developing friendships. The four factors explain 46% of the total variance. The same number of factors was also found in separate analyses on each group of participants (adolescents, teachers, parents, and young adults). Factor congruence analyses on the factors of each group of participants with the factors of overall data as the norm revealed high congruence between the overall factors and group factors. The congruence coefficients range from 0.95 to 0.99. Because of the high congruence, further analyses used the combined data set.

Table 7.15: Distribution of items over factors and factor loadings of topics related to adolescent interpersonal relationships

Rotated Component Matrix^a

Topics related to adolescent interpersonal relationships	Component			
	1	2	3	4
(06) language used in relationships, magazines, internet, etc	.02	.33	.26	.29
(07) healthy romantic relationships ("pacaran")	.18	.36	.39	.24
(08) developing romantic relationship	-.05	.50	.45	.20
(09) problems in adolescent relationships and how to deal with	.35	.19	.37	.33
(10) avoiding pre-marital sex and free sex	.30	-.08	.49	.15
(16) developing honesty and mutual trust	.56	.19	.04	.27
(17) avoiding risky sexual behaviours	.42	.19	.41	.01
(18) refusing proposal of romantic partner to do risky behaviours	.34	.08	.51	.14
(19) preparation for raising a family	.31	.43	.09	-.03
(20) developing loyalty	.41	.59	-.13	.11
(26) parental guidance	.68	-.02	.16	.09
(27) training in controlling self	.58	.21	.20	.13
(28) drugs (illegal drugs)	.14	.01	.67	.04
(29) paying attention sufficiently to a likeable person	.06	.69	.16	.15
(30) maintaining good relationships with friends	.45	.39	-.10	.28

Extraction Method: Principal Component Analysis
 Rotation Method: Varimax with Kaiser Normalization
 a. Rotation converged in 11 iterations

Inspection of the distribution of items over factors and factor loadings showed that several items had high factor loadings on more than one component (see Table 7.15). Examples are items no. 7, 8, 9, 13, 17, 22, and 30. Inspection of items with similar loadings in more than one factors revealed that the content of the items had complex meanings. Item no. 7 (“healthy romantic relationship”) and item no. 13 (“dating behaviours”), for example,

contain behaviours in the romantic relationship context (component 2), and also can be associated with risky behaviours. Other examples are items no. 9 (“problems in adolescents adolescent relationship and how to deal with”) and no. 17 (“avoiding risky sexual behaviours”). Adolescents are regarded as still needing guidance in those situations (component 1), which are regarded as risky (component 3). Because of the similarities in factor loadings on more than one component and the multiple meanings of the items, it would be inappropriate to include such items only in certain components but excluding them from other components. To take account of all the factor loadings, the *factor scores*, not the total raw scores, were be used in the next analyses on this measure.

3.4.2. Comparing respondents from various backgrounds

The comparisons were made in the same way as had been done with respect to adolescent sexual development. A multivariate analysis of variance (MANOVA) was performed with the four factor scores concerning adolescent interpersonal development as dependent measures. The independent variables were groups of participants (4), region (6), religion (3) and gender. Again, the religions included in the analysis were only Islamic, Catholic, and Protestant. The analysis found significant main effects of group and religion , both at 0.01. The estimated effect sizes (partial Eta squared), however, are very small, 0.017 and 0.007 for group and religion, respectively. Main effects of region and gender, as well as interaction effects were not found. The results of the MANOVA are summarised in Table 7.16; with only the significant results presented.

Table 7.16: Effect of demographic variables on rating in the importance of topics related to adolescent interpersonal development

Effects	F	Partial Eta squared	Dependent variables affected	Pairwise comparisons
Group (G)	6.33**	0.017	Guidance in self-management	G1>G2**, G4** G3>G4*
			Dealing with romantic relationships	G1>G3**
			Dealing with risky behaviours	G2>G1**, G4** G3>G1**, G4* G4>G1**
Religion (R)	2.65**	0.007	Dealing with romantic relationships	R2>R1* R3>R1**

Notes:

G1: Adolescents, G2 Teachers; G3: Parents; G4: Young adults

R1: Islam; R2: Catholic; R3: Protestant

*) Significant at 0.05; **) Significant at 0.01

As shown in Table 7.16, there were differences among groups) in their perceptions of the importance of guidance in self-management, programs in dealing with romantic relationships, and programs addressing risky behaviours. The guidance component included parental guidance and monitoring, developing capacities for relationships (e.g. honesty, loyalty), self-control, and future planning. Adolescents rated this aspect as more important than teachers and young adults did. Parents also judged that this aspect was more important than young adults did. There was a difference between adolescents and parents in rating the importance of topics related to romantic relationships, in which adolescents rated it as more important than the parents. “Romantic relationships” includes knowledge or training in

paying attention to a liked person, developing romantic relationships, solving problems related to romantic relationships, and dating behaviours.

Adolescents had higher Mean scores on “guidance” and “romantic relationships” than the other groups. Concerning the “risky behaviours”, however, adolescents had a significantly lower score than the other three groups. The teachers and parents also rated that this component as more important than did young adults. The “risky behaviours” component consisted of a number of training topics, such as refusal skills, sexual orientation, sexual behaviours, and illegal drugs. This result might reflect the concerns of older people who have responsibility to prevent young people from involvement in behaviours which are risky for their current and future life. Figures 7.5, 7.6, and 7.7 illustrate the difference between *groups of participants* (adolescents, teachers, parents, and young adults) in rating the importance of topics in relations to adolescent interpersonal development. *These figures use factor scores, which have Means of 0 and Standard Deviation of 1.*

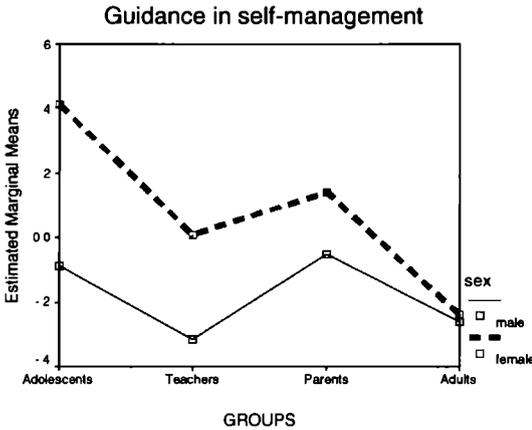


Figure 7.5: The importance of *self-management* programs in relation to adolescent interpersonal development according to the four *groups* of participants

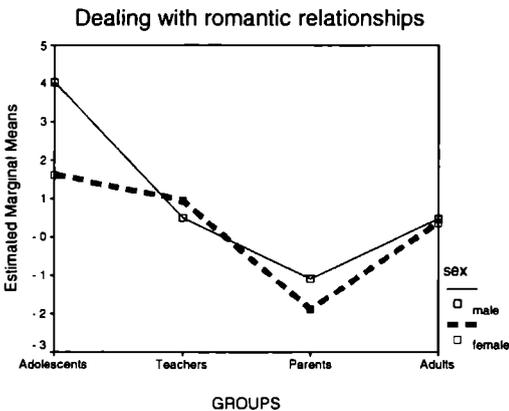


Figure 7.6: The importance of programs *dealing with romantic relationships* according to the four *groups* of participants

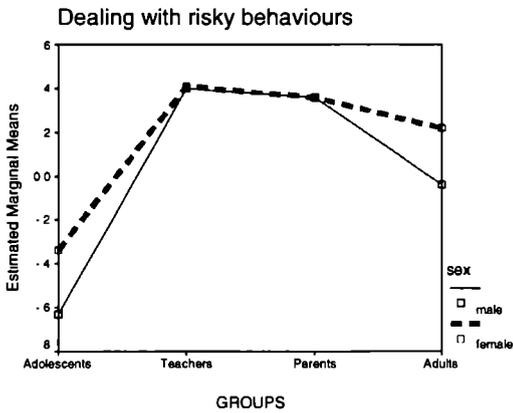


Figure 7.7: The importance of programs to deal with risky behaviours according to the four groups of participants

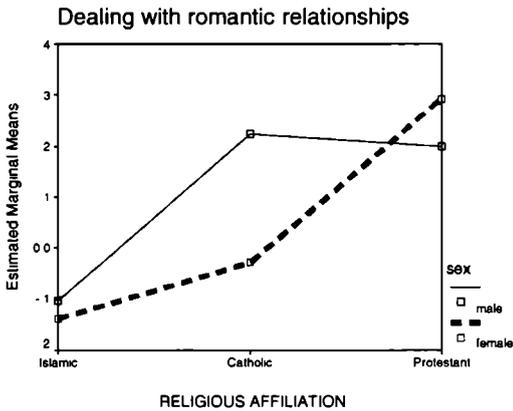


Figure 7.8: The importance of programs dealing with romantic relationships according to participants with different religious background

Concerning the relation between religious affiliation and ratings of the importance of programs related to romantic relationships, the ratings of Islamic participants was lower than those of Catholic and Protestant participants. No significant difference was found between Catholic and Protestant respondents on this component. The difference between Islamic and non-Islamic participants may be related to teachings of some Islamic figures or leaders that *pacaran* (romantic relationship) is not allowed in Islam or, at least, it is not recommended because it can lead to involvement in sexual behaviours. Illustrated in Figure 7.8 is the

difference between respondents from three religious backgrounds their perceptions of importance of programs that address adolescent romantic relationships.

A multivariate analysis of variance (MANOVA) on the rated importance of the four domains related to adolescent interpersonal development was also performed with the three age categories of adolescents as the independent variable. The analysis found no differences between the age categories in rating the importance of the four domains of adolescent interpersonal development.

3.5. Sexuality education at Senior High School

Teachers, parents, and young adults were asked whether sexuality education (or reproductive health education) at Senior High School was needed. This question had four response options, namely “Not needed at all” (coded 1), “Not needed” (coded 2), “Needed” (coded 3), and “Very much needed” (coded 4). Most of the respondents responded that such an education was needed or very much needed at senior high school. The results are presented in Table 7.17. As can be seen in the table, at least 97% of the respondents perceived that sexuality education was needed or very much needed. The percentage of teachers who answered that such an education is “very much needed” is less than those of parents and young adults. This response might be related to the school situations which are well understood by the teachers. Teachers, who not only teach but who are also familiar with the burdens of school management, may think that an additional subject like sexuality education would only increase the burden on both the school and the students.

Table 7.17: The need for sexuality education at senior high school according to teachers, parents, and young adults (%)

Sexuality education at senior high school	Teachers (N=584)	Parents (N=378)	Young Adults (N=335)	Total (N=1297)
Not needed (at all)	3%	3%	1%	2%
Needed	55%	47%	35%	47%
Very much needed	42%	50%	64%	51%

Two more specific questions were given to teachers only, regarding the facilitator of sexuality education and how to deliver the program. Regarding the right facilitator(s) for such a programme (if any), teachers of Biology were selected by 29% of the respondents followed by school-counsellor (16%), special teacher (15%), and others (not specified, 12%). The complete results are presented in Table 7.18.

The results imply that many teachers view sexuality as a mainly biological matter, and so teachers of Biology are regarded as best fitted to teach the subject. However, sexuality is also be understood by several teachers as having socio-psychological aspects, so that school counsellors (who have educational background in Psychology or Guidance and Counselling) are thought of as the “best facilitator” for this subject. Other teachers apparently think that sexuality education is a specific subject with specific contents, hence it needs teachers who are specially prepared or trained for facilitating the subject. Several other teachers preferred to associate the subject with teachers of Religious education. This preference might be related to a view that sexuality is much related to religious prescription. The answer “other teachers” without any specification may refer to certain teachers *personally*, not in relation to a specific school subject.

Table 7.18: The right facilitators for sexuality education at senior high school according to teachers (N=578)

Facilitator(s) for sexuality education	Percentage
Biology teachers	30%
Teachers of Religious education	6%
School counsellors	16%
Special teachers	15%
Other teachers (not specified)	12%
Teachers of Biology and Religious education	5%
Teachers of Biology and School counsellors	3%
Teachers of Biology, Religious education, and Counsellors	9%
Collaboration of any teachers listed above	4%

To evaluate the patterns of responses to the question about the facilitator for sexuality education among teachers in each region and school type, the data were cross-tabulated. As seen in Table 7.19, there were similar patterns in the responses of teachers in the *regions*. Generally Biology teachers, school counsellors, special teachers, other teachers (not specified), and collaborations between teachers of Biology, Religious education, and school counsellors were thought to be the right facilitators of sexuality education. The opinion of teachers in Pematang, however, is different from the opinion of teachers in other areas, with fewer references to Biology teachers, but more to teachers of Religious education as the “best” facilitator of sexuality education. Not many teachers in Kebumen (only 4%) recommend collaborations between teachers in facilitating the education.

Regarding the answers of teachers in each *school type*, the patterns are similar with the answer pattern according to region (see Table 7.20). Biology teachers, school counsellors, and special teachers were viewed as the right facilitators for sexuality education by respondents from all school types . Collaboration among teachers from several school subjects was also perceived as a good facilitator of such a program. There was also some differences among school types. Compared to teachers of other school types, more teachers in Islamic schools believed that teachers of religious education were the right persons to be the facilitators. About one-fourth (25% and 22%) of teachers in Catholic schools and Protestant schools selected the “Other teachers” option. Unfortunately, it was not mentioned who the “other teacher” would be, although they were asked to mention the “other teacher” if that option was chosen. Only a small number of teachers of Catholic school and national school (3% and 4%, respectively) thought that collaborations between teachers would be the right parties to facilitate the program.

Table 7.19: The best facilitator of sexuality education according to teachers in each region (*percentage*)

Region (Number of respondents in each region) ↓	(1) Biology teachers	(2) Teachers of Religious education	(3) School counsellors	(4) Special teachers	(5) Other teachers	(1) & (2) combined	(1) & (3) combined	(1), (2), & (3) combined	Other collaborations
Semarang City (142)	27	4	17	18	18	1	4	9	4
Pekalongan City (77)	30	7	14	8	10	4	8	16	4
Semarang Regency (94)	34	4	14	17	9	7	1	10	4
Kudus Regency (87)	33	3	18	12	9	7	3	10	3
Kebumen Regency (100)	34	5	18	16	10	7	1	4	5
Pemalang Regency (78)	19	12	15	19	12	6	1	10	5

Note: the numbers presented are the *percentages* of teachers choosing the respective answers in each region.

Table 7.20: The best facilitator of sexuality education according to teachers in school type (*percentage*)

School type (Number of respondents per school) ↓	(1) Biology teachers	(2) Teachers of Religious education	(3) School counsellors	(4) Special teachers	(5) Other teachers	(1) & (2) combined	(1) & (3) combined	(1), (2), & (3) combined	Other collaborations
Public school (201)	36	6	14	10	9	8	3	13	3
Islamic school (139)	23	10	16	19	8	5	3	10	7
Catholic school (88)	30	3	17	15	25	1	2	3	3
Protestant school (50)	12	4	20	16	22	2	6	14	4
National school (100)	34	2	18	22	7	4	3	4	6

Note: the numbers presented are the *percentages* of teachers choosing the respective answers in each school type.

Table 7.21: The implementation of sexuality education at senior high school according to teachers (N=576)

How to implement sexuality education	Percentage
As specific subject	9%
Included in Religious education	6%
Included in Biology	22%
Included in Guidance and counselling programs	16%
Included in other related subjects	21%
Included in Religious education and Biology	3%
Included in Biology and guidance-counselling programs	1%
Included in Religious education, Biology, and guidance-counselling programs	4%
Included in Religious education, Biology, other related subjects, and guidance-counselling programs	1%
As an extra-curricular activity	13%
Included in other related subjects and extra-curricular activity	1%
Other collaborations of the options listed above	4%

Consistent with the answers concerning the facilitator of sexuality education, many teachers (at least 22%) also agreed that such an education would be better included in Biology, or Biology and other subjects. Almost the same number of respondents (21%) referred “other related subjects” that could include the sexuality education. The subjects would be not only Biology and Religious education, but also other subjects such as social sciences, language, and civic education. About 9% of teachers believed that such a program would be better treated as a specific subject, but the percentage of teachers selecting this option was lower than those who answered that special teachers were the right persons to facilitate the program (15%). A significant number of teachers (13%) answered that sexuality education would be better treated as an extra-curricular activity, provided in the school. Extra-curricular activities would not be obligatory for all students, but available for students who wish to enrol in a specific activity. In general, the findings that teachers associated sexuality education with currently available subjects, programs, and teachers, may explain why fewer teachers than parents and young adults selected the “Very much needed” option in response to the question about the need for sexuality education in senior high school.

Table 7.22: The implementation of in-school sexuality education recommended by teachers in each region (*percentage*)

Region (Number of respondents) ↓	(1) Specific subject	(2) In Religious education	(3) Included in Biology	(4) Included in Guidance-counselling	(5) In other subjects	(6) Extra-curricular	(2) & (3) combined	(3) & (4) combined	(3), (4), & (5) combined	Other combinations
Semarang City (140)	7	5	19	16	14	21	2	1	5	8
Pekalongan City (76)	8	11	25	16	20	4	4	1	2	9
Semarang Regency (93)	12	5	26	14	24	9	5	1	2	2
Kudus Regency (87)	9	5	30	17	16	9	1	2	5	4
Kebumen Regency (100)	10	6	24	15	23	14	3	0	2	3
Pemalang Regency (80)	11	6	10	16	33	15	0	0	2	6

Note: the numbers presented are the *percentage* of teachers choosing the respective answers in each region

Table 7.23: The implementation of in-school sexuality education recommended by teachers in each school type (*percentage*)

School type (Number of respondents) ↓	(1) Specific subject	(2) In Religious education	(3) Included in Biology	(4) Included in Guidance-counselling	(5) In other subjects	(6) Extra-curricular	(2) & (3) combined	(3) & (4) combined	(3), (4), & (5) combined	Other combinations
Public school (202)	10	8	28	13	19	6	3	1	5	7
Islamic school (138)	15	6	18	16	25	11	4	2	2	2
Catholic school (87)	3	5	20	16	15	32	0	1	0	8
Protestant school (49)	6	4	8	27	12	22	2	2	8	8
National school (100)	8	4	25	15	29	9	3	0	2	4

Note: the numbers presented are the *percentage* of teachers choosing the respective answers in each school type.

Regarding the implementation of sexuality education, there was not much difference in opinion among teachers from different regions and from different school types (see Table 7.22 and 7.23). Biology, guidance-counselling program, other related subjects, and extra-curricular activity were thought by many teachers across regions and school types as the currently available school subjects and programs which could include sexuality education. One difference that can be pointed out is the preference for religious education and extra-curricular activity among teachers in Pekalongan City. Compared to teachers in other areas, the percentage of teachers in Pekalongan selecting Religious education is higher, while that of extra-curricular activity is much lower. Many teachers in Catholic and Protestant schools referred to extra-curricular activity to implement this program. Making sexuality education a specific school subject was also suggested by many teachers, especially teachers in Semarang Regency, Pemalang, and Kebumen, and teachers of public schools and Islamic schools.

Most of the teachers of any region and any school associated sexuality education with available school programs and resources. There is a consistency between the opinions about *who* and *how* to go with sexuality education (see Table 7.24). For example, teachers who mentioned Biology teachers as the right persons to teach sexuality mostly gave opinion that such a program should be included in Biology. Teachers who referred that school counsellors are the best facilitators for sexuality education mostly mentioned that such a program should be included in guidance and counselling programs. There were also teachers who thought that sexuality education would be better regarded as a specific subject with a specific teacher.

Table 7.24: Cross-tabulation between opinions about facilitators and implementation of sexuality education in school

Facilitators for and Implementation of sexuality education in school according to teachers (N=573)

Facilitators for sexuality education	implementation of sexuality education								
	As specific subject	Included in Religious Education	Included in Biology	Included in Guidance and Counseling	Included in other related subjects	Included in Religious Education & Biology	Included in Biology & Guidance-counseling	Included in Relig Ed Biology & Counseling	As extra curricular activity
Biology teachers	9	5	5	5	27	0	1	0	8
Teachers of Religious Education	5	0	0	1	8	0	0	0	2
School Counsellors	2	6	2	1	4	0	0	0	11
Special teachers	1	1	1	11	20	0	0	0	0
Teachers of Biology & Religious Education	0	4	5	0	8	0	0	0	1
Biology teachers and School counsellors	0	0	2	2	4	1	0	1	1
Teachers of Biology, Relig Educ, & Counsellors	1	1	0	5	9	6	0	0	3
Other teachers (not specified)	4	2	1	6	0	0	0	0	0
Collaboration of any of the teachers	0	1	1	5	8	0	1	1	2

4. Discussion

The purpose of the study reported in this chapter was to describe the opinions of various parties involved in adolescent sexuality and interpersonal development. Several findings of this study will now be discussed.

4.1. Adolescents' preferences form several points of view

Most of the questions in this study were asked to all groups of participants, namely adolescents (senior high school students), teachers, parents, and young adults. Comparisons among groups used the adolescents' points of view as the "norm", because the focus was on

adolescents' preferences and needs. Adolescents preferred to obtain information about sexual matters from friends and magazines. This finding is consistent with what was found in the pilot study (Winarno, 2003).

Several comparisons show that there are differences between adolescents' reports and others' opinions. These differences may have practical implications in dealing with adolescent sexuality and interpersonal relationships. Parents generally had opinions which were different from those of adolescents themselves, teachers, and young adults. Parents rated the mother as most preferred by adolescents as a source of information about sexual matters. Other groups of participants rated friends as the first choice of adolescents, with the mother ranked sixth or seventh. Another difference concerns the characteristics of information sources or information exchange processes. For adolescents, privacy, mutual trust, and clear explanation about sexuality are very important. According to parents (and to some extent also teachers), however, privacy and mutual trust are less important than the "correctness" of sexual information. For parents and teachers, "correct" information may not only have technical meaning (objectively correct), but should also include a moral message so that the adolescents will not take a "wrong" path in life. These opinions about the importance of privacy, trust, and correctness of information might have consequences in information exchange process. These different interests between adolescents and older people, especially parents, may create discomfort and ineffective communication between adolescents and older people about sexual matters. Therefore, adolescents themselves preferred to obtain information about sexuality from sources they could trust and which could guarantee their privacy. They apparently find such conditions in communication with friends and in information sources such as magazines.

There are also differences between adolescents and the other groups of respondents in how the importance of program contents related to adolescent interpersonal relationships is rated. Adolescents rated knowledge and skill to manage themselves and how to deal with romantic relationships as being more important than did older people. Older people believed that talking or teaching about risky behaviours in the context of interpersonal relationships was more important than did adolescents. The finding indicates that adolescents themselves realise that they are still learning to develop relationships with others and to develop capacities by themselves with others' assistance. The capacities needed not only concern romantic relationships, but also interpersonal relationships in general. Many of the capacities may be influenced by past experiences of adolescents (Collins & Sroufe, 1999), but many others can be trained. Skills in how to deal with risky behaviours are more important according to parents, teachers, and young adults than according to adolescents themselves. This difference in opinion may be related to the experiences they have had. Older people may have confronted several problems among young people which stem from of the risky behaviours. Adolescents may associate talking or teaching about risk behaviours with moral judgement, and for that reason do not like it (e.g. Adioetomo, et al., 1999). Moral judgement can make young people feel restricted in exploring their curiosity about sexuality. Adolescents may also think that "I know about it" although they are generally less experienced than older people in terms of sexuality and interpersonal relationships. Therefore, they do not think that knowledge and skills for dealing with risky behaviours is as important as older people believe.

These differences between adolescents' self-report and older people's opinions do not mean that the older people are wrong. Rather, it emphasises that these different interests can make communication with young people ineffective. It also indicates a need to find ways of communicating such topics. The ways of communication should not threaten the adolescents' privacy and should make them feel trusted. The results of this study also

indicate that for adolescents *how* the information exchange process takes place is more important than *who* the information provider is.

4.2. Integrated contents related to adolescent sexuality and interpersonal relationships

The questions about preferred characteristics of information sources, contents of programs related to sexual development, and contents of program dealing with interpersonal relationships, revealed that the characteristics or contents of information or education were mostly rated as important by the participants, although there were some differences between groups of participants in those ratings.

As the response items included in the questionnaire were based on the input from adolescents and teachers, the findings of this study can be regarded as a conformation of what is needed by adolescents for dealing with their sexual and interpersonal development. In other words, all the topics listed in the questionnaire were perceived as important, even needed, by adolescents. Implicitly these findings also suggest that information and training on the topics *should not be separated from each other*. Sexual development, for example, is not just a biological matter, but it also has personal and social meaning (cf. Teitelman, 2004; Simon & Gagnon, 1986). Involvement in a romantic relationship does not merely provide status in having boyfriend or girlfriend, but it is also related to capacities and skills to maintain the relationship, behaving in proper ways, and future planning. It has been emphasised by the World Health Organisation (WHO) that sexuality has many aspects and it is “influenced by the interaction of biological, psychological, social, economic, political, cultural, ethical, legal, historical, religious and spiritual factors”. Thus, all the factors should be included in sexuality education.

This study found that according to teachers, parents, and young adults, sexuality education in senior high school level is very much needed. However, the understanding of adolescent sexuality is often partial or reductionistic. When asked about how to provide sexuality education in school, many teachers recommended that such an education could be included in currently available school subjects such as Biology, Religious education, and other related subjects and also taught by the respective teachers. Such an implementation may be useful, but partial or reductionistic. Some teachers seemed to have a holistic understanding of sexuality, in that they recommended an integrated approach in sexuality education by making it a specific school subject which is handled by a specific teacher. Although making sexuality education a specific school subject does not guarantee a comprehensive approach in the implementation, the probability of being comprehensive is higher when sexuality education is treated as an independent school subject rather than when it is included in or attached to other subjects, such as Biology and Religious education.

4.3. Notes for future research

Four groups of participants were recruited for this study. The recruitment of these groups of participants aimed to provide a wide coverage of views about adolescents needs related to their sexuality and interpersonal relationships. The participants were primarily parties directly involved in adolescent development. Parents and teachers live and work with adolescents, and also have a responsibility for the adolescents' current and future lives. Adolescents provide information about experiences and needs from an internal point of view. Young adults, still close to their own adolescent period, provide a retrospective “look from the future” (Shulman & Kipnis, 2001). It is recommended that other studies use similar a “multi-sources method”. Moreover, the method employed in this research was expected to increase a “sense of belonging” among participants in the educational programs because they have been “involved” and “heard”, in terms based on their own ideas and opinions. Because it was assumed that such an approach would increase willingness to implement programs

related to adolescents sexuality, this assumption needs to be monitored and evaluated in the future.

The question whether sexuality education was needed in senior high school in general was addressed to teachers, parents, and young adults. This question was not given to the students themselves. Because the purpose of this study was to get input from all parties involved in sexuality education for adolescents, the main subjects of such a program, i.e. adolescents, should be asked about their needs. The information collected in the whole research project on several aspects of adolescent sexuality and interpersonal relationships has indicated that adolescents need for sexuality education. Nevertheless, a question asked directly to adolescents about their needs for such an education is necessary.

The focus of this study was on adolescents' needs for sexuality education. Therefore the questions were about what was *preferred by adolescents* or what was important for adolescents. There were no questions about the *preferences of the other groups of participants*. Knowing preferences of the other involved parties is useful for identifying the current situations and for developing programs in which the various parties will be involved. In relation to the sources of information about sexuality, the question was only about what was *preferred* by adolescents and did not cover what was *actually accessed* by adolescents. If both aspects were to be covered, it would be possible to identify whether there is a gap between the reality and the preferences. Finding reasons behind the gap between reality and preferences (if any) would be very useful for making improvements in programs for adolescents to deal with their sexuality and interpersonal relationships.

References

- Adioetomo, S. M., et al. (1999). Need assessment for adolescent reproductive health program. *Unpublished research report*. Demographic Institute Faculty of Economics University of Indonesia in collaboration with National Family Planning Coordination Board, World Bank, and Surindo Utama.
- Collins, W. A., & Sroufe, L. A. (1999). Capacity for intimate relationships: A developmental construction. In W. Furman et al. (Eds.), *The Development of Romantic Relationships in Adolescence* (pp. 125-146). New York: Cambridge University Press.
- Connolly, J., & Goldberg, A. (1999). Romantic relationships in adolescence: The role of friends and peers in their emergence and development. In W. Furman et al. (Eds.), *The Development of Romantic Relationships in Adolescence* (pp 266-290). New York: Cambridge University Press.
- Furman, W., & Shaffer, L. (2003). The role of romantic relationships in adolescent development. In P. Florsheim (Ed.). *Adolescent Romantic Relations and Sexual Behavior: Theory, Research, and Practical Implications*, pp. 3-22. Marwah, New Jersey: Lawrence Erlbaum Associates.
- Hatmadji, S. H. & Rochani, S. (1995). A study on sexual activity in Indonesia. *Unpublished research report*. A joint cooperation between Demographic Institute Faculty of Economics University of Indonesia and The Ford Foundation, RAND Corporation, The World Health Organization, and Yayasan Kusuma Buana.

- Moeliono, L. (2003). *Manual Untuk Fasilitator: Proses Belajar Aktif Kesehatan Reproduksi Remaja, Bahan Pegangan untuk Memfasilitasi Kegiatan Belajar Aktif untuk anak dan Remaja Usia 10-14 tahun (Manual for Facilitators: Facilitating Active Learning about Reproductive Health for 10-14 year-old adolescents)*. UNFPA, National Family Planning Coordination Board, and Indonesian Planned Parenthood Association.
- Moeliono, L., et al. (2004). *Materi KIE-KRR melalui media enter-educate (Materials for Information, Education, and Communication of Adolescent Reproductive Health with media enter-educate)*. Jakarta: The National Family Planning Coordination Board, in cooperation with the World Bank.
- Shulman, S. & Kipnis, O. (2001). Adolescent romantic relationships: a look from the future. *Journal of Adolescence*, 24: 337-351.
- Simon, W., & Gagnon, J. H. (1986). Sexual scripts: permanence and change. *Archives of Sexual Behavior*, 15, 97-120.
- Tandjung, A., et al. (2004). *Modul untuk Fasilitator: Proses Belajar Aktif Kesehatan Reproduksi Remaja, untuk Orang tua remaja dan Guru SLTP/SMU (Modules for Facilitators: Process of Active Learning about Adolescent Reproductive Health, for parents and High School Teachers)*. Indonesian Planned Parenthood Association, in cooperation with National Family Planning Coordination Board and UNFPA.
- Teitelman, A. M. (2004). Adolescent girls' perspective of family interactions related to menarche and sexual health. *Qualitative Health Research*, 14, 1292-1308.
- Wellings, K. & Field, B. (1996). Sexual behaviour in young people. *Bailliere's Clinical Obstetrics and Gynaecology*, 10, 139-159.
- Winarno, R. D. (2003). Pengetahuan dan Pengalaman Remaja berkaitan dengan Perkembangan Psikoseksual Mereka (Adolescent knowledge and experiences related to their psychosexual development). *Seri Kajian Ilmiah*, 12, 27-36.
- The World Health Organization. http://www.who.int/reproductive-health/gender/sexual_health.html. Retrieved on October 6, 2006.

Chapter 8:

**IMPLICATIONS OF EMPIRICAL FINDINGS FOR SEXUALITY
EDUCATION PROGRAMS IN CENTRAL JAVA**

Chapter 8

IMPLICATIONS OF THE EMPIRICAL FINDINGS FOR SEXUALITY EDUCATION PROGRAMS IN CENTRAL JAVA

The main purpose of this research project was to obtain input from various sources for developing sexuality education at the senior high school level in Indonesia, especially Central Java. Given the WHO working definition of sexuality (see Chapter 2), sexuality education for adolescents can be understood as educating or facilitating young people to develop knowledge and skills to deal with their sexuality. Such an education includes beliefs, attitudes, behaviours, and interpersonal relationships. It also covers many aspects of human sexuality such as the biological, psychological, social, cultural, ethical, and religious aspects. Several aspects of adolescent sexuality have been studied in this research project. The results have been reported and discussed in the previous chapters. It can now be asked what can be done with the results with respect to adolescent sexuality. This chapter will discuss some practical implications of the research findings for sexuality education for adolescents, especially in a school context.

The need for sexuality education for adolescents

In this research there was only one explicit question concerning the need for sexuality education for senior high school students. The question was given to teachers, parents, and young adults, but not to adolescents. At least 97% of the respondents (N=1297) replied that sexuality education was 'needed' or 'very much needed'. This result indicates that there is a high awareness among older people that it is very important to educate young people in how to deal with sexuality. This opinion is in line with the research findings concerning adolescent situations.

It was reported that adolescents often experienced difficulties with their sexual development, such as menstruation, breast development, nocturnal emission, pubic hair, or other body hair. The problems are not merely physiological, but are also psychological and social-cultural (see Teitelman, 2004; Simon & Gagnon, 1986). It was also reported that many adolescents are not well-informed about sexuality. Many of them have a low level of knowledge and believe many myths about sexuality. These findings indicate that providing correct information and helping adolescents find meanings for their experiences with sexuality is important. "Consumption" of porn materials is one way that some adolescents learn about sexuality. Adolescents also learn about sexuality from friends, magazines, adult people, and other sources.

Most of the adolescents are also involved in romantic relationships. In romantic relationships young people learn about many things, such as how to manage the relationship, how to behave, and how to pursue their autonomy and relatedness with friends (Connolly & Goldberg, 1999; Furman & Shaffer, 2003). In romantic relationships several types of sexual behaviours usually take place. Adolescent dating couples are often involved in sexual behaviours, ranging from holding hands to intercourse. Involvement in sexual behaviours results in a variety of positive and negative emotional consequences and curiosity. Many adolescents repeat certain sexual behaviours, even though the behaviours had resulted in negative emotions, such as regret, guilt feelings, and embarrassment. Involvement in certain sexual behaviour was found to be related to engagement in other sexual behaviours. However, it was also found that adolescents perceived their own sexual behaviours as not related to eventual consequences such as pregnancy or diseases. These findings may indicate that adolescents' way of thinking about sexual matters is partial or fragmented.

Those findings suggest that programs to assist adolescents in dealing with their sexuality and romantic relationships are important and needed. The next question is: what should be the content of sexuality programs?

Contents of sexuality education programs

Programs which address the sexuality of young people will have impact if they are based on the needs of young people (Wight, Williamson, & Henderson, 2006). The present research has tried to identify the needs of adolescents in several ways: identifying adolescent sexual situations, evaluating personal resources, finding patterns in how information about sexuality is obtained by adolescents, and identifying what is important for their development. The data were collected not only from adolescents, but also from teachers, parents, and young adults. The research included measures of the importance of a variety of topics that would help adolescents deal with their sexual and interpersonal development. The topics examined were chosen mainly on the basis of opinions of students and teachers. It was found that the majority of topics were rated as 'important' to 'very important' by the participants (10608 students, 591 teachers, 382 parents, and 341 young adults). Several topics were directly related to sex and to romantic relationships, but several others were more general in nature, such as self-management and self-development. This means that according to those involved in adolescent sexuality, it is important that adolescents acquire a broad range of knowledge and skills to deal with their sexuality and interpersonal relationships.

Other findings of this research project also showed that biological aspects of development need to be addressed in educational programs. However, the biological aspects should not be separated from the psychological, socio-cultural, and ethical aspects of sexuality. The research did reveal relations between sexual situations and personal resources of Central Java adolescents. There were also relations between what young people did and what their peers did. In the study on *pacaran* couples, it was found that *pacaran* (romantic relationships) has various meanings for adolescents. The *pacaran* involves a variety of behaviours including sexuality, adjustment, coping strategies, and emotions. For many adolescents, a dating partner is expected to be the future life partner, although they experienced ups and downs in their relationship. These findings suggest that sexuality education should be comprehensive, covering many aspects of human sexuality, as suggested by the WHO working definition.

Many scholars have suggested that sexuality education for young people should be comprehensive. Talashek, Norr, and Dancy (2003) proposed the use of a social-cognitive model, such as that developed by Bandura, as a framework for building young people's capacities for maintaining sexual health. This model includes several personal and social factors which influence the sexual behaviours of young people. Santelli et al. (2006) found that a comprehensive sexuality education program was favoured by parents in the United States over abstinence-only programs for high school students. The comprehensive sexuality education included 'making babies', diseases, contraceptives use, and making responsible sexual decisions. Santelli and colleagues also found that comprehensive sexuality education programs have effectively promoted a delay in sexual initiation. Abstinence-only programs, on the other hand, had no clear impact on the delay of initiation in intercourse, although they increase intentions to abstain.

Discussing health behaviours in general, van Empelen, Gebhardt and Dijkstra (2006) argued that the central motive of health behaviours is not health status, but 'feeling good and positive about themselves'. Health behaviours are outcomes of internal processes in the self. Hence, according to those scholars, positive self-enhancement is effective in promoting health behaviours. DiIorio, Dudley, Soet, and McCarty (2004) found that perception of self

(self-concept and self-efficacy) can predict adolescent involvement in intimate sexual behaviours, but not in intercourse. They also found that personal values and time alone with opposite-sex predicted engagement in intimate sexual behaviours as well as intercourse. Bearinger, Sieving, Ferguson, and Sharma (2007) also suggested that comprehensive sexuality education for adolescents should include physical, social, and psychological aspects. To be comprehensive, the construction of sexuality education curriculum should involve experts from different backgrounds.

Many organisations have been working in the areas of reproductive or sexual health with a comprehensive approach. The International Planned Parenthood Federation-IPPF (2006), for example, has developed a strategic framework for comprehensive sexuality education for young people. The strategic framework emphasises the need for young people to acquire correct information, develop life skills, and nurture positive attitude and values. According to the IPPF framework there are seven essential components of comprehensive sexuality education, namely gender, sexual and reproductive health, sexual citizenship, pleasure, violence, diversity, and relationships. Another organisation which has comprehensive approach in addressing adolescent sexuality is the Dutch non-profit organisation, the World Population Foundation (WPF). With a module entitled “The World Starts With Me!” – WSWM (World Population Foundation, 2006), this organisation works with local organisations in several developing countries, including Indonesia. WSWM, which was developed in 2003, is a school-based, and computer-based, sexuality education program. The WSWM covers self development (self-esteem, autonomy, values, etc.), awareness of social environment (social relationships, life skills, cultural influences, etc.), sexual health and risks (pregnancy, HIV/AIDS, decision making, rights, etc.), and goal setting and future planning.

Implementation of sexuality education

This research found that according to 97% of teachers (n=584) sexuality education (*pendidikan kesehatan reproduksi* - reproductive health education) in senior high school is necessary. However, the majority of them recommended that such education be included in, or attached to, currently available school subjects or programs and taught by the respective teachers. Most believed that sexuality education should be included in Biology or other related subjects, and hence, should be taught by Biology teachers. Religious Education was also recommended by small number of teachers as an existing subject that could include sexuality education. Other school programs mentioned by teachers which could include sexuality education were guidance and counselling programs and extra-curricular activities. In these cases school counsellors were recommended as facilitators of the program. Only about 10% of the teachers recommended that sexuality education be an independent school subject with specific teachers. These results indicate that many teachers have a partial or reductionistic concept of sexuality, and therefore also of sexuality education. This kind of approach is *not* in accordance with the concept of comprehensive sexuality education. Moreover, attaching sexuality education to other school subjects or activities carries the risk of being non-continuous, non-systematic, and non-contextual. As an example is teaching reproductive processes in a Biology class. It can be assumed that instruction would cover biological or physical aspects only, and would not include personal or social meanings of the reproductive process. In a Biology class, the students would not have opportunities to share their experiences and feelings about the reproductive process, such as irregular menstruation or having an erect penis in the morning. Therefore, the inclusion of sexuality education into existing school subjects would not necessarily cover the context of students’ daily lives and experiences. An occasional sexuality education program, for example once a year, is also regarded as not effective because it is not continuous. Young people should receive a lot

more instructional experiences related with their sexuality over a one year period In designing and implementing WSWM ("The World Starts With Me") program, WPF emphasises the importance of a systematic and long term sexuality education

With regard to agreements among the groups of participants (adolescents, teachers, parents, and young adults), the respondents generally rated mutual trust, respect for privacy, correct information, and understandable explanation as important in the process of providing information about sexuality These preferred characteristics or conditions are similar with the principles of sexuality education set up by IPPF (2006) According to the IPPF confidentiality and adolescents' right to access correct information are important Trained, skilful, committed, and empathic facilitators are important components of sexuality education (IPPF, 2006, Bearinger et al, 2007) Clear objectives and the availability of resources are also important Moreover, sexuality education is expected to provide opportunities for the young people to be actively involved in the education process (Bearinger, 2007, IPPF, 2006, WPF, no date) Involving adolescents in the program can be achieved, for example, in the form of a peer education program A comprehensive sexuality education requires a variety of flexible resources and methods It has been mentioned that sexuality, and also sexuality education, includes interpersonal relationships Interactive process and methods are expected to be used in the education process Related to this principle, a team of facilitators is regarded as more effective in delivering sexuality education than only a single facilitator Teamed facilitators can also serve as models of human sexuality which includes diversity, autonomy, relationships, cooperation, respects, and many other components of human relationships Facilitator teams which include both genders is recommended

Addressing specific groups

Sexuality education will be effective if it meets adolescent needs (Wight et al, 2006, IPPF, 2006) Among adolescents, however, there are sub-groups which may differ in terms of their needs related to sexuality education In this research there were several socio-demographic factors which could be used to identify specific groups of adolescents The background factors included region, school type, school semester, gender, age, and religious affiliation

The present research did uncover differences among different groups of adolescents For example, students in some regions (Pemalang Regency, Kebumen Regency, and Pekalongan City) were less well-informed about sexuality than their counterparts in other regions Students of Islamic and national schools reported more frequent psychosexual problems than students in public, Catholic, or Protestant schools Age was also found to be related to sexual situations and personal resources of adolescents However, no relation between age and the ratings of important topics related to sexual and interpersonal development was found Noteworthy are the relations between age and involvement in a romantic relationship, and in sexual behaviours, in which older adolescents were more likely to report engagement in romantic relationships and sexual behaviours It was also found, however, that females with an older boyfriend were more likely to be involved in all types of sexual behaviours, superficial as well as deep sexual behaviours Males reported being more frequently involved in sex-related behaviours than did females Factors which influenced involvement in romantic relationships or sexual behaviours were also different for males and females

These findings suggest that it is very important to identify the needs of specific groups before developing sexuality education programs for adolescents (see also Bearinger, 2007) It does not mean that the structure of the program should be different from one group to another Rather, the differences have more to do with how to implement the programs for

a group with specific needs. This can involve the selection of topics to be emphasised, or can involve how to deliver certain topics in ways which are more suitable for a specific group.

Dealing with barriers

The recommendations in this chapter are based on scientific research in which the respondents answered the questionnaire individually in a confidentiality-guaranteed condition, and also based on literature studies. However, it is possible that these recommendation will not (easily) be accepted by some people or institutions. Several reasons for non-acceptance can be (a) disagreement with the findings of the research, (b) resistance to sexuality education because of cultural taboos or fear of negative effects of sexuality education, (c) defensive attitudes of schools which may insist that sexuality education is being provided through existing school subjects and activities, (d) management and academic burdens of schools and students, and (e) sexuality education is not a “sexy” topic with which schools can attract prospective students.

Concerning disagreement with the research findings, it is possible that different studies using different methods and respondents have obtained findings which are different from the findings reported here. Gathering data on a group basis, for example, may have results which are different from those of individual data collection, because of interaction process in group data collection. It is important to note, however, that the present research consisted of one pilot study, one large-scale survey, and one micro-scale study on *pacaran* couples. The large-scale survey itself included several groups of participants, namely in-school students (N=10608), out-school students (N=224), school teachers (N=591), parents (N=382), and young adults (N=341). The participants were recruited from six regions differing in maternal mortality ratio (MMR) in Central Java and from all types of schools available in each region. The composition of gender and religion of the participants were not much different from the Indonesian, or Central Java, population.

However, even agreement in research findings does not automatically result in agreement with the recommendations. There are still many people who do not agree with sexuality education because of personal, social, or cultural reasons. Many people still think that talking about sex, especially in open forums such as a classroom, is taboo. There is also the fear that sexuality education will encourage young people to be involved in sexual behaviours, especially intercourse. Such fear may be caused by the people not knowing about the contents of a comprehensive sexuality education program. It is noteworthy, however, that comprehensive sexuality education has been found to promote abstinence among young people in the United States (Santelli et al., 2006). Findings from several Asia-Pacific countries, including Indonesia, have also show that well-designed sexuality education (including or excluding HIV/AIDS) delays the initiation of sexual activity, reduces the number of sexual partners, and reduces unplanned pregnancy and the rates of HIV and other sexually transmitted infections (Smith, Kippax, & Aggleton, 2000).

Regarding the implementation of sexuality education in schools, there are several factors which may influence the school policies related to sexuality education. Most schools give a lot of attention to obligatory academic subjects, particularly to subjects which are included in the national examination programs (*Ujian Nasional*). This situation is related to other parties involved in education, especially the government (see Beni, 2005; Djaja, Surjadi, & Susilawati, 2002). Parents’ expectations regarding their children’s achievement also plays an important role in the absence of sexuality education in schools. Thus, the absence of sexuality education in schools is a vicious circle, in which interactions among related parties strengthen the current situation. This vicious circle can be broken only with a strong political will in the involved parties namely the government, schools, education foundations, parents, and the students themselves.

Who must take an initiative?

The political will of all parties has a key role in the implementation of school-based sexuality education. Although sexuality education has been a concern for several years, officially there is no school-based sexuality education in Indonesia. Many schools have provided occasional sexuality education, usually by involving other institutions (NGO, Hospital, or University) to facilitate the programs. However, occasional sexuality education is generally regarded as not effective.

At present, several NGOs in Indonesia have in-school programs on sexuality education. Examples are NGOs which collaborate with the World Population Foundation (WPF, 2006). The question is whether the sexuality education will be continued by the schools when the project is over. Hence, the school has the important role for initiating, continuing, or terminating a non-obligatory school subject such as sexuality education. Parents can also contribute to school policy. In each school there is a parents association or school committee, which consists of representatives of parents and teachers. Through such associations and committees parents can propose that schools pay more attention to the non-academic development of their children, in this case sexual and interpersonal development. Moreover, schools are not only related to parents, but are also associated with education foundations (for private schools) and the government (for public school and private schools). Therefore, policies of the education foundations and the political will of the government are also very important in relation to sexuality education in schools. NGOs, while falling outside official school government, are nonetheless very supportive of the implementation of sexuality education in schools, and can also contribute to sexuality education in a variety of ways, such as changing public opinion through mass media publication or other public campaigns. In some cities in Indonesia there is Reproductive Health Forum (*Forum Kesehatan Reproduksi*). Membership in this forum includes individuals and institutions. The persons or institutions gathered in the forum come from various backgrounds, including religious and sexuality backgrounds, and from governmental as well as non-governmental institutions. Such a forum has the potential to influence the political will of the government and change public opinion regarding sexuality education matters. It is expected that all the initiatives, collectively and individually, will have a positive impact on the implementation of school-based sexuality education.

References

- Bearinger, L. H., Sieving, R. E., Ferguson, J., & Sharma, V. (2007). Global perspectives on the sexual and reproductive health of adolescents: patterns, prevention, and potential. *Lancet*, 369, 1220-1231.
- Beni, R. (2005). Family barriers in preventing HIV/AIDS among young people in Indonesia. *Journal of Population*, 11, 131-159.
- Connolly, J., & Goldberg, A. (1999). Romantic relationships in adolescence: The role of friends and peers in their emergence and development. In W. Furman et al. (Eds.), *The Development of Romantic Relationships in Adolescence* (pp 266-290). New York: Cambridge University Press.

- DiIorio, C., Dudley, W. N., Soet, J. E., & McCarty, F. (2004). Sexual possibility situations and sexual behaviours among young adolescents: The moderating roles of protective factors. *Journal of Adolescent Health, 35*, 528.e11-528.e20.
- Djaja, S., Surjadi, C., & Susilawati, C. (2002). *Kebijakan dalam kesehatan reproduksi. Materi informasi (Policies in reproductive health. Information materials)*. Jakarta: Jaringan Epidemiologi Nasional (JEN) in cooperation with Ford Foundation.
- Van Empelen, P., Gebhardt, W. A., & Dijkstra, A. (2006). The silent need for a positive self: Why physical health is not the central motive in unhealthy and healthy behaviours. *Netherlands Journal of Psychology, 62*, 42-50.
- Furman, W., & Shaffer, L. (2003). The role of romantic relationships in adolescent development. In P. Florsheim (Ed.). *Adolescent Romantic Relations and Sexual Behavior: Theory, Research, and Practical Implications*, pp. 3-22. Marwah, New Jersey: Lawrence Erlbaum Associates.
- International Planned Parenthood Federation (2006). <http://www.ippf.org/en/Resources/Guides-toolkits/Framework+for+Comprehensive+Sexuality+Education.htm>. Retrieved on June 28, 2007
- Santelli, J., et al. (2006). Abstinence and abstinence-only education: A review of U.S. policies and programs. *Journal of Adolescent Health, 38*, 72-81.
- Simon, W., & Gagnon, J. H. (1986). Sexual scripts: permanence and change. *Archives of Sexual Behavior, 15*, 97-120.
- Smith, G., Kippax, S., & Aggleton, P. (2000). HIV and sexual health education in primary and secondary schools: Findings from selected Asia-Pacific Countries. *Monograph*. http://www.ibe.unesco.org/AIDS/doc/HIV_and_sexual_health_education.pdf. Retrieved on June 29, 2007.
- Talashek, M. L., Norr, K. F., & Dancy, B. L. (2003). Building the power for sexual health. *Journal of Transcultural Nursing, 14*, 207-216.
- Teitelman, A. M. (2004). Adolescent girls' perspective of family interactions related to menarche and sexual health. *Qualitative Health Research, 14*, 1292-1308.
- Wight, D., Williamson, L., & Henderson, M. (2006). Parental influences on young people's sexual behaviour: A longitudinal analysis. *Journal of Adolescence, 29*, 473-494.
- The World Population Foundation (2006). Annual Report2006. <http://www.wpf.org>. Retrieved on June 28, 2007.
- The World Population Foundation (no date). The World Starts With Me! Computer-based sexuality and life skill education in secondary schools in Indonesia, Thailand, Kenya, & Uganda. http://www.wpf.org/documenten/20060809_WSWM_handout.doc. Retrieved on June 28, 2007

SUMMARY

The increasing number of problems related to sexual and reproductive health among adolescents has been a concern of many parties. Adolescent pregnancy, diseases transmission, and unsafe abortion are some problems of adolescent sexuality. Such problems also can be found in Indonesia. Some of these problems can have serious consequences, particularly for female adolescents where, for example pregnancy can result in expulsion from school. Yet there is no formal, continuous, school-based, sexuality education program in Indonesia. Existing programs are only occasionally offered and do not seem to be need-based. For developing educational programs which can meet the needs of adolescents, a comprehensive study of the situation and needs of young people is very important. Moreover, it is also important to involve those responsible for adolescent development in such research. This research project aimed to provide a description of the current situation of Indonesian adolescents, with a focus on Central Java, concerning their sexuality and intimate relationships. It was expected that the findings of this research would make a contribution to the development sexuality education programs for adolescents.

The research methodology is described in Chapter 2. The research project consisted of a pilot study, a large-scale survey, and a micro-scale study. The pilot study was carried in a Senior High School in Semarang, recruiting 187 students and 12 teachers as the respondents. The main objective of the pilot study was to collect basic information for developing the instruments to be used for the two main studies. The large-scale survey questioned 10608 in-school students, 224 out-school students, 591 teachers, 382 parents, and 341 young adults. The participating students were between 14 and 20 years old. The study was conducted in six regions in Central Java, Indonesia, namely Semarang City, Pekalongan City, Semarang Regency, Kudus Regency, Kebumen Regency, and Pemalang Regency. The selected regions differed in the maternal mortality ratio (MMR). Sixty-five senior high schools were selected in the six regions. All school types, namely public, Islamic, Catholic, Protestant, and national schools, were included in this study. The data were collected in 2003 using questionnaires. The survey covered sexual situations, coping with interpersonal problems, sexual behaviours, knowledge about sexual matters, psychosexual problems, interpersonal self-efficacy, sources of information about sexuality, and knowledge or training needed by adolescents in relation to their sexual and interpersonal development.

The micro-scale study recruited 59 unmarried romantic couples in Semarang. At least one party of each couple was a senior high school student. The couples were individually interviewed and were asked their opinions regarding how they gave meaning to the romantic relationship (*pacaran*), the practice of *pacaran* and their feelings about it, and the prospect they saw regarding the future of their relationship. Data collection with the *pacaran* couples was conducted in September-October 2005.

The results of the large-scale survey are summarized in several chapters. Chapter 3 contains an account of the life situations of adolescents concerning their sexuality. The survey revealed that most of adolescents in Central Java had been in romantic relationships. This situation, however, seemed not always known by parents and teachers. Involvement in sexual behaviours, including intercourse, was also reported by a number of adolescents, especially males. The adolescents tended not to associate their own involvement in sexual behaviours with possible consequences of those behaviours, such as pregnancy, diseases infection, and abortion. It was also found that both male or female senior high school in Central Java still frequently had problems related to their sexual development, such as menstruation, nocturnal emission, pubic hair development, or breast development. In addition to the psychosexual problems, another potentially problematic situation was also found in the survey. Specifically, adolescent knowledge about sexual matter was relatively

low. The objective knowledge about sexuality was mixed with beliefs in various myths about sexuality. The details of the adolescents' situations was related to socio-demographic factors: the region (which was associated with MMR), school type, school semester, and gender. However, the relationship between the situations and age was generally weak.

Chapter 4 summarizes the main findings of the micro-study on *pacaran*. For adolescents who were currently in love, a world without sexual attraction was perceived as void, impossible, or not enjoyable. In the context of actual in-love status, adolescents placed their romantic relationship (*pacaran*) within a marriage context. They were frequently looking for a life partner through their current romantic relationship, although they did not plan to get married in the near future. Many of the young people reported that their relationship was developing and predicted that their current *pacaran* relationship would end up in a marriage. Males and females used different bases for predicting whether marriage would occur. *Pacaran* couples were involved in various sexual behaviours, from holding hands to intercourse. The sexual behaviours can be interpreted as intimacy rituals which had two dimensions, namely superficial ritual and deep ritual. The involvements in the rituals were correlated with the age difference between the partners, the age of each partner, and the duration of the relationship. The involvement in sexual behaviours was accompanied by various emotional reactions. Negative emotional reactions and curiosity lasted longer than the positive emotional reactions.

The aspect of the research which examined personal resources of the adolescents, specifically coping with interpersonal problems, interpersonal self-efficacy, and self-concept, is summarized in Chapter 5. Four coping strategies were identified: religious coping, active coping, giving-up, and denial. Interpersonal problems were also reported by *pacaran* couples. In the dyadic context, rational and egalitarian conflict resolutions were chosen by young people when they had conflicts with their romantic partner or friends. Talking and discussing the problems were reported by many participants. When having problems with parents, however, the young people preferred to alter their (problematic) behaviours to resolve the conflicts. It was reported that these ways of dealing with conflicts usually brought about the desired results.

Concerning self-efficacy in interpersonal relationships, friendship efficacy, intimacy efficacy, and risk-taking efficacy were the three dimensions found in the interpersonal self-efficacy study. In the intimate self-efficacy study, three dimensions were also found: courtship efficacy, romantic efficacy, and refusal efficacy. The self-concept measure was found to include seven dimensions of self-concept: physical and general self-worth, academic-verbal and general, relations with peers, relations with parents and religious morality, emotional stability, academic-math, and negative self-thoughts. All the personal resources (coping, self-efficacy, and self-concept) were related to socio-demographic background. Many of the dimensions of personal resources were also correlated with other personal resources, but the correlations were generally weak.

Three hypothesised models of the relationships between personal resources and sexual situations were tested and the results presented in Chapter 6. The models focused on psychosexual problems, experiences in romantic relationships, and dyadic sexual behaviours. It was found that males and females had similar patterns with regards to personal resources and sexual situations, except in their sexual behaviours. The male dyadic sexual behaviours could be predicted mostly by their courtship efficacy, while female sexual behaviours were mostly related to their romantic experiences and refusal efficacy.

The research also documented the sources of information about sexuality that adolescents preferred, the topics regarded as important for adolescent sexual and interpersonal development, and the need for and implementation of sexuality education in school. These findings are presented in Chapter 7. Although there were some differences in

rating the information sources preferred by adolescents, there was a moderately high agreement among adolescents and the other groups of participants (teachers, parents, and young adults) regarding this matter. Friends, magazines, other adults, teachers, close friends, newspapers, and the mother were rated as the sources of information most preferred by adolescents. A guarantee of privacy, mutual trust, and understandable explanation were rated by all group of participants as the most important characteristics of information sources or information providing processes. The contents of programs for dealing with adolescent sexual development were perceived as very important by all groups of respondents. Differences were found in judging the important topics related to adolescent interpersonal relationships. In this respect, adolescent rating of the importance of guidance in self-management and how to deal with romantic relationships was higher than the ratings of the other groups. Adult groups of participants, on the other hand, rated topics on risky sexual behaviours as more important than did the adolescents. Educational programs for dealing with adolescent sexuality were regarded by teachers as necessary, but most of them held a reductionistic view on adolescent sexuality. Hence, many of them also recommended partial approaches in implementing sexuality education, i.e. programs attached to currently available school subjects or programs.

It was expected that findings of this research project could be used as significant input for developing in-school sexuality education. These implications are discussed in Chapter 8. It was clear from this research that sexuality education for senior high school students is needed. Such a program should have comprehensive, yet integrated, contents. The findings of this research project indicate that several aspects of adolescent sexuality and interpersonal relationships were related to other aspects of their lives. It was also found that the adolescent sexuality-related situations were related to their socio-demographic background. All the conditions should be taken into account in developing sexuality education. It is, however, realised that there are barriers to initiating and implementing such comprehensive in-school programs. The barriers include cultural, political, academic, personal, and financial factors. Hence, all those involved in adolescent development should work together to take initiatives for implementing sexuality education for young people.

SAMENVATTING

Deze dissertatie heeft seksualiteit en romantische relaties van Indonesische adolescenten als onderwerp van studie. Het inpassen van biologisch gegeven seksualiteit in sociaal-maatschappelijk aanvaardbare kaders is een belangrijke opgave voor adolescenten. Zwangerschap terwijl je nog op school zit, onveilige (vaak illegale) abortus, seksueel-overdraagbare ziekten bedreigen de gezondheid van adolescenten, ook in Indonesia. Zwangerschap betekent voor een vrouwelijke scholier in Indonesia dat zij van school wordt verwijderd. In het reguliere onderwijs geïntegreerde seksuele voorlichting en opvoeding ontbreekt in Indonesia. Bestaande programma's zijn gelegenheids constructies en lijken niet in te spelen op de werkelijke behoeften die adolescenten van diverse leeftijden hebben. Om adequate programma's voor seksuele educatie te kunnen ontwikkelen is het nodig om de seksuele situatie en educatieve behoeften van Indonesische adolescenten te kennen, naast de wensen van personen die zich mede verantwoordelijk voelen voor de begeleiding van adolescenten tot volwassenheid: ouders en leraren, onder anderen.

Het hier gerapporteerde research project beoogt informatie te leveren over de seksuele situatie van adolescenten in Centraal Java, als ook over de opinies en wensen van andere belanghebbenden in seksuele opvoeding. Naar verwachting kan dergelijke informatie bijdragen aan de constructie van adequate school-gebonden programma's voor seksuele voorlichting en opvoeding.

De gegevens zijn verzameld in zes regio's in Centraal Java, in en rond de grote stad Semarang. Deze regio's zijn gekozen vanwege een parallel lopend onderzoeksproject gericht op het opsporen van psychologische predictoren van moeder-sterfte in het kraambed (zie de dissertatie van Utami, 2007). Deze zes regio's toonden in 2002 grote verschillen in Maternal Mortality Ratio. Beide research projecten zijn opgezet en uitgevoerd in samenspraak met dezelfde wetenschappelijk begeleider. Hun start was in januari 2002.

Het hier gerapporteerde project bestaat uit drie deelprojecten: een pilot studie, een grootschalig survey, en een micro studie. Hoofdstuk 2 geeft informatie over de opzet van elk deelproject.

De *pilot studie* had als doel het instrumentarium voor het survey te testen op uitvoerbaarheid, volledigheid, en psychometrische kwaliteit. Respondenten waren 12 leraren en 187 SMP-scholieren uit Semarang.

Het grootschalig survey werd gedaan medio 2003 in zes regio's in Centraal Java: Semarang City, Pekalongang City, Semarang Regency, Kudus Regency, Kebumen Regency, en Pemalang Regency. Data werden deels op school, klasgewijze, verzameld, deels bij adolescenten buiten school. In totaal zijn gegevens beschikbaar van 10608 in-school en 224 buiten-school adolescenten (14 – 20 jaar), en van 591 leraren, 382 ouders en 341 jongvolwassenen. Beide seksen zijn vertegenwoordigd onder de respondenten, als ook de meest voorkomende godsdiensten van Indonesia. De *survey data* werden verzameld middels een questionnaire met vragen en stellingen betreffende seksuele situaties, manieren om interpersoonlijke problemen op te lossen, seksuele gedragingen, kennis over seksualiteit, de aanwezigheid van psycho-seksuele problemen, de eigen bekwaamheid om met anderen om te gaan, bronnen van informatie over seksualiteit, en de voor adolescenten nodig geachte kennis en training ten behoeve van de ontwikkeling van interpersoonlijke en seksuele competenties. De resultaten van het survey worden gerapporteerd in de hoofdstukken 3, 5, 6, en 7.

De *micro studie* is bedoeld om gedetailleerde informatie te verschaffen over het Indonesische fenomeen 'pacaran': de zelfgekozen persoonlijke en intieme relatie met iemand van de andere sekse. De jongen en meisje in 'pacaran' vormen een 'stel'. De behoefte aan deze micro studie ontstond toen uit de eerste resultaten van het survey bleek dat twee-derde van alle adolescenten 'in pacaran' waren of geweest waren. Deze situatie is echter vaak

onbekend aan de ouders. Hoofdstuk 4 rapporteert de resultaten, gebaseerd op gestructureerde interviews met 59 ongehuwde stelletjes waarvan tenminste één partner een SMA-scholier is.

Hoofdstuk 3 beschrijft vele aspecten van de seksuele situatie van de adolescent uit Centraal Java. Zoals reeds vermeld, bleek uit het survey dat twee-derde van alle adolescenten 'in pacaran' waren of ooit geweest waren. Deze ervaring was betrekkelijk onafhankelijk van leeftijd of klas. Vele scholieren kenden tenminste een scholier die afgelopen jaar zwanger was geworden (dit kan betrekking hebben op een klein aantal zwangeren). Ongeveer 1 op de 14 scholieren kende tenminste één scholier die een SOA had opgelopen. De informaties uit de in-school verkregen data correspondeerde goed met die van de buiten-school ondervraagde adolescenten. Deze laatste groep kon meer in detail ondervraagd worden over hun seksueel gedrag. Elf procent van de jongens ($n = 101$) gaf aan tenminste een copulatie-ervaring te hebben, terwijl voor de meisjes ($n = 117$) dit één procent was. In het algemeen legden de adolescenten geen verband tussen hun seksuele activiteiten en mogelijke (gezondheids) gevolgen. Zowel jongens als meisjes rapporteerden soms problemen te hebben met de lichamelijke manifestaties van hun seksuele ontwikkeling; jongens iets meer dan meisjes. Opvallend was de geringe kennis van seksuele feiten bij zowel jongens als meisjes. In de meeste aspecten van 'seksuele situatie' waren er verschillen tussen de regio's, schooltypen, semester (klas), en tussen jongens en meisjes; de relaties met leeftijd was zwak.

Hoofdstuk 4 beschrijft de 'pacaran' relatie vanuit de perspectieven van de beide partners, die ieder apart geïnterviewd werden. Een 'wereld zonder seksuele aantrekking' kon niemand van de ondervraagden (59 paren) zich voorstellen. Als doel van pacaran werd veelal het zoeken/vinden van een levenspartner genoemd. Een tien-tal voorgelegde seksueel-erotische gedragingen bleek geordend te kunnen worden naar 'moeilijkheidsgraad'. Achter deze ordening bleken twee cumulatieve dimensies schuil te gaan, die geïnterpreteerd werden als intimiteits-rituelen. Het 'oppervlakte-intimiteit' ritueel liep van 'hand vasthouden' tot en met 'tong-zoenen'; het 'diepe-intimiteit' ritueel begon met 'zoen in de nek' bij jongens (met 'lip-zoen' bij meisjes) tot en met copulatie. Het trio 'lip-zoen', 'zoen in de nek', en 'tong-zoenen' maakt bij meisjes deel uit van beide rituelen, voor jongens geldt dat voor het duo gevormd door de laatste twee. Alleen het 'oppervlakte-intimiteit' ritueel was positief gerelateerd aan leeftijd; de intensiteit van beide rituelen hing samen met het leeftijdsverschil (jongen-meisje). De emotionele reacties *tijdens* en *na* elk seksueel gedrag is bevestigd, en gedrag-specifieke gevoelens zijn gevonden. Zowel positieve als negatieve gevoelens zijn gevonden bij elk seksueel gedrag. Nieuwsgierigheid bleek een veel voorkomend gevoel *na* elk seksueel gedrag, en des te meer naarmate het gedrag 'moeilijker' was. Deze nieuwsgierigheid lijkt verband te houden met de wens tot herhaling.

De partners zijn gevraagd het verloop van hun relatie weer te geven in een grafiek, met als horizontale as de tijd en verticaal de kwaliteit van de relatie. Ongeveer drie-kwart van de respondenten rapporteerde een toename in kwaliteit. Bij twee-derde van de respondenten was er behoorlijke intra-paar overeenstemming in verloopspatroom. De sterkte van de overtuiging dat de huidige pacaran relatie uiteindelijk tot een huwelijk zou leiden bleek bij de meisjes voorspeld te kunnen worden op basis van de 'duur van de relatie' ($\rho = 0.63$), terwijl bij de jongens twee predictoren gevonden werden: a) de lineariteit in het verloopspatroom (afwezigheid van ups en downs) ($\rho = 0.49$), en b) de helling in het verloopspatroom (dwz. de snelheid van toename in relatie-kwaliteit).

Hoofdstuk 5 beschrijft een aantal persoonlijke hulpbronnen die adolescenten kunnen inzetten bij de vorming, het onderhoud en de eventuele afbouw van persoonlijke relaties (een pacaran-partner of beste vriend(in)): copingstrategieën, besef van eigen relationele bekwaamheid (self-efficacy), en zelf-concept. Uitgaande van bestaande westerse instrumenten die als itempool dienden werden op basis van de uitkomsten van principale

componenten analyses een viertal Indonesisch-Javaanse coping-strategieën geïdentificeerd (religieuze coping, actieve coping, toegeven, en ontkenning), en bleek het besef van eigen relationele bekwaamheid te bestaan uit bekwaamheden op een drietal gebieden (vriendschap initiëren en onderhouden, vrijages initiëren en onderhouden, grenzen stellen aan de relatie en evt. stoppen). Op dezelfde wijze bleek de zelf-concept itempool zeven dimensies te bevatten (fysiek/uitelijk, schoolprestaties/leervermogen mbt verbaal materiaal, peer-relaties, relaties met morele autoriteit (ouders, religie), emotionele stabiliteit, schoolprestaties/leervermogen mbt abstract-wiskundig materiaal, negatieve/ongewenste eigenschappen). Opvallend was dat de intercorrelaties tussen de drie groepen variabelen zeer laag waren; kennelijk geven ze toch onafhankelijke informatie. Achtergrondkenmerken (schooltype, regio, semester, gender) van de adolescenten waren bijna alle significant, maar laag, gerelateerd aan de drie groepen variabelen, maar het grote aantal respondenten waarop de analyses gebaseerd zijn maakt al vlug geringe relaties zichtbaar.

In hoofdstuk 6 wordt verslag gedaan van pogingen om de rol in kaart te brengen van de persoonlijke hulpbronnen (geanalyseerd in hoofdstuk 5) in de seksuele situatie van de adolescent (geanalyseerd in hoofdstuk 3). Telkens werd eerst de voorhanden onderzoeksliteratuur 'vertaald' naar een model, waarvan de predicties vergeleken werden met de geobserveerde relaties in de Centraal Java studie. Problemen met de eigen seksuele ontwikkeling bleken niet op de verwachte wijze te correleren met andere variabelen; in het bijzonder bleek 'kennis over seksualiteit' alleen bij meisjes negatief te correleren met deze problematiek, en alleen bij 14-15 jarigen in relevante mate. Romantische ervaring (pacaran-relatie hebben) bleek zowel bij jongens als meisjes op dezelfde wijze samen te hangen met 'zelfconcept mbt peer-relaties', 'actieve coping-strategie', 'bekwaamheid in vrijages', en met het omgevingskenmerk 'mijn vrienden/vriendinnen hebben romantische relaties'. De in-school en buiten-school verzamelde gegevens concorderen. Verschillen in 'dyadisch seksueel gedrag' bleek voor jongens op grond van het opgestelde model beter voorspelbaar ($R^2 = .74$) dan voor meisjes ($R^2 = .32$). Opvallend was dat 'leeftijd' bij de jongens 14% van de criterium variantie voorspelde, en bij de meisjes niets. Verder bleken de eigen 'romantische' (pacaran) ervaringen van belang, meer bij jongens dan bij meisjes. Van de eigen bekwaamheid was bij jongens vooral die m.b.t. 'courtship', terwijl bij meisjes de eigen bekwaamheid m.b.t. intieme vriendschap dyadisch seksueel gedrag leek te bevorderen, en de bekwaamheid om 'paal en perk te stellen aan de partner' (refusal efficacy) dit gedrag leek te remmen.

Hoofdstuk 7 rapporteert allereerst over de voorkeuren die adolescenten, naar de mening van vier verschillende belangengroepen bij seksuele voorlichting en opvoeding, hebben voor 15 informatiebronnen over seksualiteit. Deze groepen zijn: de adolescenten zelf, de leraren, de ouders, de jong-volwassenen. Er bleek weinig overeenstemming te bestaan *binnen* elke respondent groep. Daarom is per groep een hiërarchische clusteranalyse gedaan om relatief homogeen (hogere onderlinge overeenstemming in de volgorde van belangrijkheid van de informatiebronnen) subgroepen te vinden; dit leidde tot meerdere subgroepen per respondentgroep. De voorkeursprofielen konden geïnterpreteerd worden. Onder de adolescenten zelf waren 4 profieltypen te vinden: 1) zij die aan on-persoonlijke bronnen de voorkeur gaven, 2) zij die 'peers' prefereerden, 3) zij die seksuele informatie het liefst van vader of moeder ontvingen, en 4) zij die het liefst op school geïnformeerd werden. Jong-volwassenen dachten dat de bron-voorkeur van adolescenten ofwel volgens type 3 of type 4 was, ofwel volgens een mix van typen 1 en 2. Leraren dachten in termen van de typen 1, 2, en 4. Ouders dachten over de adolescenten voorkeur in termen van type 4, het mengtype 1&2, en een specifiek type 5 'oudere, ervaren personen'.

Alle groepen respondenten waren het er over eens dat informatie overdracht aangaande seksualiteit moest gebeuren in een atmosfeer van wederzijds vertrouwen, waar de

privacy van de deelnemers gerespecteerd werd, de de uitleg makkelijk te begrijpen zou zijn, de informatie correct, en de informant/informatrice ervaring moest hebben, en 'meer moest weten over seksualiteit'.

Op de tweede plaats rapporteert dit hoofdstuk, op basis van gegevens uit de pilot studie, over de wenselijke inhouden van sexuele voorlichting en opvoeding. Een vijftal afzonderlijke inhoudsgebieden kwam naar voren: sexuele aandriften en sexuele gedragingen, training in zelf-ontwikkeling, reproductie, sexueel riskant gedrag, de betekenis van seksualiteit binnen de menselijke levensloop.

Tenslotte wordt gerapporteerd over de behoefte aan sexuele voorlichting en opvoeding op school (SMA: senior high school): slechts hooguit 3% van elk der vier respondent groepen vindt dit *niet* nodig. Grote verdeeldheid blijkt echter onder de leraren te bestaan hoe dan deze sexuele voorlichting en opvoeding ingepast moet worden in het lesprogramma.

Hoofdstuk 8 bediscussieert enkele implicaties van de empirische bevindingen voor sexuele voorlichting en opvoeding programma's in Centraal Java.

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Adolescent sexuality is a complex matter and may mean something different for each person. It can be associated with excitement, curiosity, happiness, tasks, or problems. For me, adolescent sexuality means gratefulness. Through of this topic I have met many wonderful people, to whom I am grateful. Words are just not enough to express the gratefulness. Although my words are limited, and the words may limit my expressions, I write the words down in this piece of paper. Because of many limitations, I can not mention all the people to whom I am grateful. Nevertheless, deep in my heart, my happy and grateful heart, your names are all there.

It was in 2001 that Ton Coenen came to our University and started the cooperation between our university, the Soegijapranata Catholic University in Semarang, Indonesia, and Radboud Universiteit Nijmegen (at that time it was Katholieke Universiteit Nijmegen), Netherlands. Since then, he has played a role behind the scene of my effort to pursue a doctorate degree in Nijmegen. I was then led to meet Peter Heymans and Franz Mönks, who both became my promotores. They have been so facilitative and helpful for me. From Peter Heymans I have learned a lot about how to see things with critical, yet respectful, eyes. I have learned that there are possibilities in seemingly impossible situations. Franz Mönks, who also played an important role in the initiation of the cooperation between the two universities, empathically listened whenever I had difficulties during my visits to Nijmegen. I am grateful to all of you.

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I am grateful, really grateful, to all of you.

Rachmad Djati Winarno

CURRICULUM VITAE

RACHMAD DJATI WINARNO was born in Wonogiri, Indonesia, on August 7, 1961. After completing his study in Philosophy and Theology at the Sanata Dharma University in Yogyakarta, Indonesia, in 1990, he worked as a teacher at the Faculty of Psychology of Soegijapranata Catholic University in Semarang, Indonesia until now. In 1993 he started his master program in Guidance and Counselling at De La Salle University in Manila, the Philippines and graduated in 1995. Upon completing his study in the Philippines he returned to Soegijapranata Catholic University and became involved in the newly established Centre for Health Psychology studies at the University. He was the head of the Centre from 1999 to 2003.

In the context of cooperation between the Faculty of Psychology of Soegijapranata Catholic University and the University of Gent, Belgium, he had the opportunity to visit the University of Gent as a trainee in research in Health Psychology in 1996 for four months. In 1998 he was granted a scholarship by the Australian Agency for International Development (AusAID) to undergo a 3-month training in HIV/AIDS prevention at University of Melbourne, Australia. This training has shaped his interest in HIV/AIDS and reproductive health concerns. His current research is on sexuality education for young people.

