

Knowledge, attitudes and practice of secondary school girls towards contraception in Limpopo Province

Authors:

Dorah U. Ramathuba¹
Lunic B. Khoza¹
Mutshinyalo L. Netshikweta¹

Affiliations:

¹Department of Advanced Nursing Science, University of Venda, South Africa

Correspondence to:

Dorah Ramathuba

Email:

Dorah.ramathuba@univen.ac.za

Postal address:

Private Bag X5050,
Thohoyandou 0950,
South Africa

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Unplanned teenage pregnancy constitutes an important health problem, whilst contraceptive services are free throughout South Africa and the number of Termination of Pregnancy (TOP) services is increasing. The purpose of this study was to assess the knowledge, attitudes and practices of secondary school girls towards contraception in Thulamela Municipality of Limpopo Province, South Africa. A quantitative descriptive study design was used and respondents were selected by convenience sampling from a population of secondary school girls, the sample consisting of 273 girls in Grades 10–12. A self-administered questionnaire was used to collect data and analysed by computing frequencies and percentages using the Statistical Package for Social Sciences. Findings showed that respondents were aware of different contraceptive methods that can prevent pregnancy. However, most did not have knowledge of the emergency contraceptive, intra-uterine device and female condom. Pressure from male partners, fear of parental reaction to the use of contraceptives, reluctance to use contraceptives, poor contraceptive education and lack of counselling were seen as the main causes of ineffective contraceptive use and non-utilisation. Possible modalities of intervention deal with providing contraceptive counselling and care to empower these school girls to make informed choices on reproductive health.

Introduction

With global expansion of contraceptive information and services, contraceptive technologies have continually improved and contraceptive prevalence has risen throughout most of the world. However, access to mainstream contraceptive methods is more limited in sub-Saharan Africa than elsewhere; on average contraceptive prevalence in Africa is approximately 27%, less than half the average throughout the world (Bisika *et al.* 2007).

Over the years the idea of contraceptives as means of birth control in the Republic of South Africa (RSA) has changed, with some totally opposed and others accepting it. Traditionally it was not acceptable to fall pregnant before marriage, but cultural norms have shifted and having a teenage pregnancy is now not seen as immoral. Ziyani and Ehlers (2006) indicate that the attitudes of healthcare providers also contribute to the non-use of contraceptives by adolescents, since they are denied access by being ridiculed, and despite having knowledge about contraceptives they end up becoming pregnant.

Cultural beliefs within Black communities also prevent young people from gaining more information about sexuality, because culturally parents could not discuss sexual information with their children. Concrete sexual education and related information were not made available to the youth until they were faced with the trauma of unwanted pregnancies, birth complications and Sexually Transmitted Infections (STIs) due to wrong decisions and misconceptions about contraceptives (Sapire 1988; Kau 1988). Ziyani and Ehlers (2006) also reported that adolescent girls saw it as ideal to have given birth by the age of 18 years, since contraceptives would delay childbearing and cause sub-fertility – an indication that within African culture families and childbearing are highly valued.

The South African Demographic Survey 1998 showed that sexual behaviour starts as early as at 13 years of age in boys and 15 years in girls; furthermore, teenage pregnancy was more prevalent amongst Coloured and rural girls (Berry & Hall 1998). Peltzer's (2001) study in Limpopo found that the mean age of sexual debut was 15.4 years, and moreover knowledge and use of contraceptive methods seemed to be poor in the province (Ritcher & Mlambo 2005). Oyedele and Cassimjee (2006) also reported that rural and Coloured girls experience some form of oppression when it comes to contraceptive use.

Despite government intentions to provide free contraceptive services, there is still a high proportion of adolescents being exposed to the risk of pregnancy. Teenagers in the RSA are exposed to the

risks of unwanted and unintended pregnancies as a result of ineffective use of contraceptives and non-utilisation of contraceptive services. Mwaba (2000) underscores the significance of statistics released in 1997 by the Medical Research Council which indicated that 17 000 babies were born to mothers of 16 years and younger. Furthermore, Ehlers *et al.* (2000) indicate that the rising incidence of adolescent mothers is expected to exceed 1 million in 2010, in spite of free contraceptive services.

Bisika *et al.* (2007) also indicated that in Africa more adolescent girls die due to pregnancy-related conditions, and unsafe abortions account for a great deal of adolescent morbidity. Over 60% of all unsafe abortions occur amongst women under the age of 25 years. Furthermore, half of all new Human Immunodeficiency Virus (HIV) infections occur in people of 15–24 years of age, most of them sexually active young girls – who are thus in even greater need of contraception and the dual protection it offers.

On balance, there is a high probability that within Black cultures parents, teachers and church leaders might be failing to communicate information about sexuality freely with their children as they feel embarrassed and awkward and think it is immoral. Various studies reported that adolescents in the RSA had some knowledge of one or other method to prevent pregnancies, but never as much as tried to use these methods. This finding was supported by Setiloane (1990), Ehlers *et al.* (2000) and Ehlers and Khoza (2001), who found that all pregnant teenage girls interviewed knew some contraceptive methods. Furthermore, Ehlers (2003) reported in a study done in Tshwane, RSA, that 60% of adolescent mothers knew about contraceptives but only 43 used injectables, condoms and the pill. In most studies teenagers gave many reasons for non-use of contraceptives, such as fear of parents and of infertility.

An unknown number of unwanted pregnancies continue to be terminated legally or illegally, and it has been reported that in the RSA between 30% and 50% of women requesting TOP were not using contraceptives at the time of conception. Similar percentages of unplanned pregnancies were reported, and the situation continues unabated despite availability of free contraceptives, emergency contraceptives and choice of TOP services (Maja & Ehlers 2004). Similar findings were reported by Yako and Yako (2007), that a large proportion of adolescents were exposed to the risk of pregnancy due to lack of contraceptive knowledge.

There is a need for adolescents to protect themselves from unintended pregnancies, and effective knowledge and contraceptive use can prevent unplanned pregnancies as well as the need for TOP.

Problem statement

Escalating adolescent pregnancies and unsafe methods of abortion are of great concern in Thulamela Municipality in the Vhembe district of Limpopo Province. Some pregnancies

continue to be terminated, legally or illegally. This is revealed through the escalating number of women aged less than 18 years admitted for delivery and termination of unwanted and unplanned pregnancies in hospitals, irrespective of availability of free contraceptive services. For instance, in 2004 there were 1896 adolescents aged less than 18 years who delivered in hospital A in the Thulamela Municipality, accounting for 26% of the 7382 total deliveries (Tshilidzini Hospital maternity statistics register, 2004/2005). A study by Grobler *et al.* (2007) also confirms that one in every three teenage girls in the RSA falls pregnant before the age of 18 years. It was therefore necessary to assess and determine the knowledge and attitudes of adolescents on contraception.

Research objectives

The objectives of the study were to:

- assess the knowledge of secondary school girls about contraceptives
- determine attitudes of secondary school girls towards use of contraceptives
- determine factors contributing to non-use of contraception by secondary school girls.

Contribution to field

The study could add to the existing body of knowledge regarding contraceptive knowledge and usage by adolescent girls, thereby preventing unplanned pregnancies, TOP and problems related to teenage motherhood.

Research method and design

A quantitative method was followed, with an exploratory and descriptive approach adopted to assess the knowledge of secondary school girls and discern their attitudes towards contraception in Thulamela Municipality, Limpopo Province. This entailed collection of numerical data that were manipulated by statistical procedures using the Statistical Package for Social Sciences in order to describe the phenomenon (Polit & Hungler 2001). This method was used because the objective was to determine whether the girls had the appropriate knowledge, and to measure their views on contraception. The quantitative study used was able to yield more information about the knowledge and attitudes of adolescents by means of direct questioning of a sample of secondary school girls (Polit & Hungler 2001; Burns & Grove 2001). Through exploratory and descriptive research concepts are described and relationships identified that provide the basis for further research.

Population and sampling

The target population is the aggregate of cases about which the researcher would like to make generalisations (Polit & Beck 2004). The target population of the study included girls aged 13–19 years who were in Grades 10–12 at six secondary schools in Thulamela Municipality, Limpopo Province.

The population included girls of all types of socio-economic status, irrespective of parity, who might be practising or

not practising family planning, were in Grades 10–12 and attending secondary schools in the Vhembe district of Limpopo Province. Non-probability convenience sampling was used to obtain a sample of 273 secondary school girls from the six sampled secondary schools. Convenience sampling entails using the most conveniently available people as study participants (Polit & Beck 2004).

Systematic probability sampling of education circuits was conducted. Systematic sampling refers to the process of selecting every *K*th element on the sample list (Burns & Grove 2001). Malamulele Central was included purposively based on reports of high rates of teenage pregnancies, and simple random sampling was used to achieve the desired sample of six schools each from an education circuit.

Data collection method

Self-reported, open- and close-ended questionnaires were used to capture data relevant to the study's objectives and research questions. The researcher and research assistant distributed the instruments. The questionnaire was formulated to capture sexuality information, contraceptive knowledge, attitude and practices, and comprised the following sections: section 1 – demographic information of respondents in order to contextualise the findings; section 2 – sexuality knowledge; section 3 – contraceptive knowledge; section 4 – attitudes towards contraception; and section 5 – contraceptive practices.

The questionnaires were distributed by the researcher and an assistant and collected on the same day in order to enhance the return rate.

Results

The research results were analysed according to the sections of the self-reported questionnaire.

Demographic data

Demographic data included respondents' age, grade, residential area, religion, home arrangements and recreational activities, and employment status of the respondents' parents. The items in this section attempted to obtain personal information about the respondents in order to contextualise the responses concerning sexuality issues against knowledge of contraception and contraceptive practices by secondary school girls.

The majority (54%) of the adolescent girls were aged 15–17 years, and most (76%) were residing in rural areas and were of Christian denomination. Forty-six per cent were staying with both parents, whilst 41% were staying with their mothers and siblings; 67% of their mothers were unemployed. The community of Thulamela Municipality is characterised by poor socio-economic conditions and most people rely on government grants.

Sexuality knowledge

Of the respondents 73% started menstruating between ages 13–14 years, and received information regarding menstruation and sexuality from sources like parents, school, peers and magazines, and other sources like sisters or loveLife. The information received was about HIV and STIs, based on the 'Abstinence, Be faithful, Condomise (ABC)' programme, but 41% had already initiated sexual intercourse before 16 years of age, citing reasons such as curiosity, being forced by a boyfriend or it 'just happened'. The majority (54%) were aware that they could fall pregnant, but still engaged in unprotected sex. Poor understanding of reproductive health can place the adolescent at a disadvantage due to their not taking enough precautions to avoid pregnancy.

Contraceptive education and knowledge

Of the respondents 75% indicated that they had knowledge about the different contraceptive methods, such as the pill (43%), condom (58%), injection (50%), femidoms (40%), Intra Uterine Device (IUD) (10%), and diaphragm, spermicides and jellies/foam (<3%). Major sources of information were their parents and the media. Specific reference was made to emergency contraceptives, with 17% knowing what they were but not able to describe when they should be taken. In addition, 66% had no idea what a female condom looked like, whilst 10% knew what an IUD was.

The majority of respondents did not know the frequency of taking oral contraceptives; of those who responded, 35% said daily, 14% sometimes, 22% before sex, 13% after sex, and 16% didn't know. The findings indicate that although they had knowledge of some forms of contraceptives, understanding thereof was usually superficial.

Attitudes towards contraceptives

Almost 51% of the respondents reported that they were using contraceptives, and of those who were using them 29% used condoms, 9% the injection, 1% female condom, and 3% the pill. Preferences of contraceptives ranged from 60% who preferred condoms to 19% who preferred the injection and 5% contraceptive pills. The majority of respondents (46%) expressed negative perceptions of pills and injectables, stating many side-effects such as 'weight gain', 'amenorrhoea', 'irregular menstruation', 'periodic pains', 'headache', 'destroys the womb' and that 'you can still get STIs'. Seventy-two per cent never discussed contraceptives with their parents, whilst 51% did not discuss them with

TABLE 1: Contraceptive knowledge.

Contraceptive knowledge	%
IUD	10
Femidoms	34
Pill	43
Injection	50
Emergency contraception	17
Male condom	58
Spermicidal, jellies, diaphragm	3

their boyfriends as they wanted peer recognition (wanted to feel accepted by their boyfriends and peers (friends) that they have natural sex), reported being afraid, wanted to look cool and said that contraceptives were a threat to cultural values and norms, whilst others did not see the need for the discussion and felt uncomfortable raising the issue.

Of the 63% of respondents who reported negative attitudes towards contraception, 4% reported that they were abstaining, whilst others made statements such as: 'boyfriend may leave me', 'can damage my womb', 'get fat', 'my mom will be angry', 'may never have children', 'it's dangerous', 'long menstruation', 'not involved', 'not having sexual relations', 'not ready for family', and 'not necessary'. This indicates that adolescents need to receive information on contraceptives and sexuality.

The Chi-square test was carried out to determine the relationship between knowledge about contraceptives and contraceptive practices. The results ($p < 0,05$) indicated that knowledge about contraceptives has a significant effect on contraceptive practice, suggesting that those who were knowledgeable were likely to use contraceptives, unlike the ill-informed.

Contraceptive practices

Utilisation of health services and perceptions about health care providers

Sixty per cent of the respondents were not utilising the health care services, giving reasons such as that they were too far away (9%), culturally not permitted (12%), shy (21%), services not available (9%), and the staff were not friendly (16%); the majority (33%) cited other reasons like 'I don't like', 'I don't need them', and 'never had sex'. This indicates that adolescents are dissatisfied with the type of service provided, which can hamper uptake of contraceptives.

Suggestions to improve health services

Forty-two per cent of respondents felt that health care providers needed to display a positive attitude towards them; they should be caring, patient, friendly, and improve communication. The respondents indicated this through statements like: 'Encourage youth discussions', 'employ teenagers to promote anti-pregnancy and use condoms', 'open telephonic lines for communication', 'private rooms for

discussions' and 'more workshops'. This indicates the plight of adolescents, and services need to be tailored according to these clients' needs.

Ethical considerations

In ensuring the safety of respondents and preventing violation of human rights, permission to carry out the study was sought from the Research and Ethics Committee of the University of Venda, school governing bodies and headmasters of senior secondary schools, and the Department of Education in the district and Limpopo Province. Informed consent was obtained from each respondent after a full and thorough explanation of the aim and potential benefits of participating in the study was given, and written consent was signed. Anonymity and confidentiality were ensured in that respondents' names did not appear on questionnaires, and information will not be shared with people known to participants. Also, the research report will only portray figures, statistics and discussions without giving any names. The principal, teachers and respondents were given similar explanations of the purpose of the study and consent forms were given out for parental consent prior to data collection, since most learners were under-age. The respondents were also informed that participation was voluntary, and that they could withdraw at any time during the process if they felt uncomfortable. The respondents were allowed to complete the questionnaires in a spacious room (classroom, hall or library) away from the teachers, and were seated individually to provide privacy and psychological comfort. They were requested to be truthful and objective in their responses.

Trustworthiness

Validity deals with the extent to which the instrument measures that which it is intended to measure (Babbie & Mouton 2001). Validity was ensured by using the same questionnaire that was standardised with the help of a statistician prior to data collection. Content validity refers to the degree to which an instrument has an adequate sample of items of the construct being measured (Polit & Beck 2008). To ensure content validity a thorough study of relevant literature was made before constructing the questionnaire; thereafter it was presented to experienced nurse educators for comment. The reliability of an instrument deals with its ability to produce the same results over a period of time when used with the same participants (Burns & Grove 2005). A pre-test was carried out with 15 adolescents who did not form part of the final study, in order to determine the clarity of the items and consistency of responses. No discrepancies were observed between the pre-tests results and the actual study.

Discussion

Many of the adolescents in the study were sexually active, with average age of commencing intercourse in the mid-teens. In many African countries more than 20% of women aged 14–19 years have given birth to at least one child. The South African Demographic and Health Survey (Berry &

TABLE 2: Contraceptive use and preferences.

Category	Contraceptive	%
Current contraceptive use	Male condoms	29
	Injection	9
	Femidoms	1
	Pills	3
Contraceptive preferences	Male condoms	60
	Pills	5
	Injections	19
	IUD	0.4

IUD, Intra Uterine Device.

Hall 1998:7) showed that sexual behaviour started at 15 years amongst girls, and was more prevalent amongst rural and Coloured girls in South Africa. Irrespective of their sexual activity, adolescents were not taking responsibility, since they indicated that it just happened or they did it out of curiosity. This indicates that secondary school girls were sexually active but ignorant, not displaying responsible behaviour like consenting to safe sex, using protection to protect themselves from STIs, or deliberating on the consequences of early initiation of sexual relationships.

Khoza (2004) reported similar findings, that group conformity, competition, curiosity, unemployment and irresponsible parents could lead to early initiation of sexual activities. Concerning information regarding sexuality and contraceptives, sexuality knowledge was poor as the majority could not specify the natural method or relate facts about menstruation and the safe period. Contraceptive knowledge was low as they engaged in unprotected sex, and some did not even know how often a contraceptive pill should be taken. These findings resonate with those of Maja and Ehlers (2004), who reported that 44.6% of adolescents were not using contraceptives consistently, implying that they were still at risk of unwanted pregnancy. Consistent and correct use of contraceptives is important to prevent unwanted pregnancies.

Regarding the adolescents' source of information on sexuality and contraceptives, nurses and the media were cited equally, but the schools were also found to be a source of information; however, this information was not sufficient, since the teachers are from the same cultural background and feel uncomfortable discussing contraception and sexuality. The Alan Guttmacher Institute (2001) and Burgess, Dziegieleski and Green (2005) found that sex education in public schools often missed the target by dwelling on abstinence and denying students the information they really needed when they became sexually active.

This is supported by Bam (1994), who is also of the opinion that sexual education is not an event but a process. Information given should consist of information on anatomy, physiology, sexual behaviour, STIs, sexual development, conception and contraception. The study indicated that respondents had some knowledge of methods of contraception. These findings are supported by other studies like that by Ehlers and Maja (2001), which also reported that 64% of mothers could mention pills and injections – but these were adolescent mothers, who in spite of knowing about contraceptive methods ended up becoming pregnant. These findings are also supported by the Department of Health (2001) study, where it is indicated that to mention the method does not necessarily imply its use.

The condom was cited by the majority as their preferred contraceptive method, whereas the hormonal contraceptives (the injection and the pill) were least preferred. However, the low condom use is a disturbing factor, since most were not actually using them even though condoms are widely

distributed and easily available. Other contraceptive methods like emergency contraceptives, IUDs and femidoms were generally not known about, due to the fact that Vhembe is a rural district and the socio-economic conditions of the respondents mean they are not able to access them, since the public health facilities do not cater for such services.

These results reflect a serious omission on the part of the government and health care providers to make female condoms available in public places in order to encourage their use by women. Among their female adolescent sample, Moore and Parker (1999) similarly reported that their participants were unaware of the female condom. Those who knew about female condoms reported that condoms were purchased by some relatives at their homes. Regarding emergency contraception, the majority had no knowledge of it. This finding is further supported by Maja and Ehlers (2004), who reported that whilst 31.3% had heard about the morning-after pill, only 12.8% could provide information on it.

The adolescents displayed negative attitudes towards contraceptives as they could not engage in a discussion with their boyfriends and parents, and cited as reasons for this immorality, fear of parental authority and peer recognition and looking cool, some also indicating that they were using cultural methods. Kitsnasamy, Reddy and Jordan (2009) also concur with the fact that students across ethnic groups have a myriad of concerns related to religion and morality, as Christian participants viewed contraceptive use as morally wrong and promoting premarital sex, whilst Indian students indicated that it was demeaning and embarrassing to ask for them.

Forty-nine per cent of the adolescents were not using contraceptives and cited negative perceptions about contraceptives. Of those who were using contraceptives, 60% preferred condoms, 19% preferred injections and 5% preferred pills. Adolescents have easy access to condoms as they are usually distributed in public places, but still are not using them consistently or frequently, which results in unintended pregnancies and STIs. Kistnasamy *et al.* (2009) also indicated that sexually active students preferred condoms as a contraceptive method over the pill or injection. However, Mashegoane *et al.* (2004) reported that students did not use condoms during sexual intercourse, which supports the fact that preference does not relate to actual use.

Adolescents in the study could not even discuss contraceptives with their parents (most of them were from single-headed households) or boyfriends, and lack of open communication increases risky sexual behavior. Short and Rosenthal (2003) indicated that parents are the earliest models of sexuality, and mostly children from single-headed households were likely to indulge in sexual activities at an early age, and that is why adolescents could not open discussion with their parents.

Contraception can be a threat to cultural values and norms. In African cultures there is a notion that a man will not

marry a woman until she has demonstrated her fertility, and women are considered inferior partners that cannot communicate about contraception with their partners. These findings are supported by Sukati (1998), cited in Ziyane, Ehlers and King (2003), in a study aimed at understanding men's lack of commitment in family planning practices, which reported the need for health providers to target men on health-related issues including family planning so that they can support adolescent girls to use contraceptives.

Sixty per cent of the respondents were not utilising the health care services, and gave different reasons for this including health workers who denied them access to contraceptives since they perceived them as too young to engage in sexual intercourse. Adolescents need to be provided with information about contraception so that they are able to make an informed decision. Kellner, Jooste and Jacobs (2010) indicate that family planning services should be in line with clients' expectations, put clients first, and treat the clients as they want to be treated.

Limitations of the study

The research was conducted at only one municipality, and the results therefore cannot be generalised to others. The results of this research may also not be generalised to larger groups, and apply only to the secondary school girls who participated in the research.

Recommendations

Contraceptive knowledge

More information on human sexuality, conception and contraception should be made available early, at the primary school level of a child's education, to eliminate misconceptions about contraceptives. Girls should be empowered to take responsibility for the use of contraceptives, by enlightening them with proper and adequate information about their function, usage and methods.

Community health care services should foster collaboration with schools to address matters such as sexuality, contraception and contraceptive education and to strengthen life skills.

Health workers should receive regular in-service training in order to be able to provide a detailed contraceptive service and contraceptive counselling.

Contraceptive attitudes and factors contributing to non-use

Girls should have access to confidential counselling and quality contraceptive information and services, including emergency contraception where appropriate. Negative attitudes and perceptions about contraceptives should be broken down by encouraging girls to take responsibility for their sex life, initiate conversation on contraceptive issues, and consult health facilities to clarify misconceptions.

Peer educational programmes should be initiated. These influence in positive ways, promote norms, attitudes and behaviour, and will enable those involved to make decisions about safe sex or negotiate safe sex. Youth centres should be developed to a point where adolescents can be empowered about life skills to be self-sufficient.

Stereotypical thoughts and behaviour should be eliminated through proper contraceptive counselling and enlightening adolescents about the benefits of contraceptives in reduction of morbidity and mortality. Males and /or partners should be involved in understanding contraceptive practices through educational programmes to prevent negative attitudes, gender and patriarchal systems of behaviour.

Conclusion

Failure to help young people deal with sexuality and contraception leads to high incidences of pregnancy, STIs and HIV and AIDS, as well as high maternal and infant mortality. Reproductive health care services need to be available, accessible and comprehensive, and to provide education, counselling and be adolescent-friendly, allowing the secondary school girls to be mature and responsible persons.

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Competing interests

The authors declare that they have no financial or personal relationship which may have inappropriately influenced them in writing this article.

Authors' contributions

D.U.R. (University of Venda) is the author of this article, which is based on her master's thesis; L.B.K. (University of Venda) was supervisor of the thesis work and manuscript, and M.L. N. (University of Venda) was cosupervisor of the thesis.

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