



RESEARCH

FACTORS INFLUENCING ADOLESCENT MOTHERS' NON-UTILISATION OF CONTRACEPTIVES IN THE MKHONDO AREA

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ABSTRACT

This study investigated factors influencing adolescent mothers' non-utilisation of contraceptives in the Mkhondo (previously known as the Piet Retief) area. Although contraceptives are available free of charge, the number of adolescent mothers continues to increase in this area. Questionnaires were completed by 107 adolescent mothers. Many participants (70.0%) lacked knowledge about contraceptives. Subsequent to the birth of their babies, only 59.81% used contraceptives, risking further pregnancies. The findings indicate that adolescents, from the age of 12, should receive education about contraceptives. The availability of contraceptives during weekends could help adolescents to prevent unplanned pregnancies. Health education should be given to the mothers in the Mkhondo area so that they can provide more effective education about contraceptives to their daughters.

OPSOMMING

Hierdie studie het faktore ondersoek wat bydra tot adolessente moeders se versuim om voorbehoedmiddels te gebruik in die Mkhondo-(voorheen bekend as Piet Retief) area. Alhoewel voorbehoedmiddels gratis beskikbaar is, neem die getal adolessente moeders in hierdie area steeds toe. Vraelyste is deur 107 adolessente moeders voltooi. Heelwat deelnemers (70.0%) het gebrekkige kennis oor kontrasepsie getoon. Na die geboorte van hulle babas het slegs 59.81% kontrasepsie gebruik, wat 'n risiko vir verdere swangerskappe ingehou het. Die bevindinge dui aan dat adolessente, vanaf 12-jarige ouderdom, onderrig oor kontrasepsie behoort te ontvang. Die beskikbaarheid van voorbehoedmiddels gedurende naweke kan adolessente help om onbeplande swangerskappe te voorkom. Gesondheidsvoorliging moet aan die moeders in die Mkhondo-area verskaf word sodat hulle meer effektiewe onderrig oor kontrasepsie aan hulle dogters kan oordra.

INTRODUCTION

The Mkhondo (previously known as the Piet Retief) area in the Mpumalanga Province of the Republic of South Africa has a rising rate of adolescent mothers. Adolescents comprise approximately 50% of clients attending ante natal clinics in this area (Piet Retief Hospital Statistics, 2003:1).

The Department of Health's (DOH, 2001:36) Policy Guidelines for Youth and Adolescent Health include sexual and reproductive health among the six top health care priorities for adolescents. Respecting clients' rights and meeting their needs are critical for providing high quality contraceptive services enabling clients to use contraceptives effectively and consistently. Thus this study attempted to find out what factors influenced adolescent mothers in the Piet Retief area not to use freely available contraceptives. These factors were subdivided into three major groups in terms of the major components of the Health Belief Model (HBM), namely individual perceptions, modifying factors and variables affecting the likelihood of actions.

DEFINITIONS OF KEY TERMS

In order to facilitate the comprehension of all readers of the specific ways in which the key concepts were used throughout the study, the following key concepts are defined.

Adolescent mother refers to any mother aged 19 or younger at the time of delivery irrespective of the outcome of the pregnancy and irrespective of the mother's marital status (Ehlers, Maja, Sellers & Gololo, 2000:46).

Contraceptives are agents such as pills, condoms, intra uterine devices, diaphragms, and injections used to temporarily prevent the occurrence of conception (Ketting & Visser, 1994:16).

Emergency contraceptives are used soon (preferably within 24 hours) after unprotected sexual intercourse to prevent a pregnancy by inhibiting ovulation, or preventing implantation (Hatcher, Rinehart, Blackburn, Geller, & Shelton, 1997:15).

Non-utilisation of contraceptives implies the failure to use contraceptives effectively to prevent unplanned

pregnancies.

Pregnancy is the condition of a female from conception until delivery of the baby (Sellers, 1993:173).

Termination of pregnancy implies the act of bringing a pregnancy to a final end, preventing the birth of a live baby (Dickson-Tetteh, 1999:20).

THE HEALTH BELIEF MODEL (HBM)

The major components of the HBM include perceived susceptibility, perceived severity, perceived benefits and costs, motivation and enabling or modifying factors (Polit & Hungler, 1999:128). According to Onega (2000:271) the HBM's major components can be grouped into individual perceptions, modifying factors and variables affecting the likelihood of actions. Factors influencing adolescent mothers' utilisation or non-utilisation of contraceptives were grouped according to these three major components of the HBM.

Individual perceptions

Individual perceptions comprise "a person's beliefs about his/her own susceptibility to diseases plus the seriousness with which he/she views the perceived threat of the illness" (Onega, 2000:271-275). In this study individual perceptions concerning adolescent mothers' perceptions about the utilisation of contraceptives are discussed.

Modifying factors

Demographic, socio-psychological and structural variables may influence a person's health-related actions or lack of actions (Onega, 2000:271). Demographic factors which might influence adolescents' decisions as to whether or not to use contraceptives might be influenced by their age, level of education and parity.

Age

The ages of adolescent mothers provide important indications as to which age groups should be targeted by health educators to inform them about contraceptives prior to their sexual debuts (Belfield, 1998:31). Although knowledge alone could not claim to prevent or reduce the number of adolescent pregnancies, knowledge about contraceptives should enable adolescents to make in-



formed decisions as to whether or not to use contraceptives.

Education

A person's level of education affects his/her ability to make informed decisions, including contraceptive decisions.

Parity

An adolescent mother might encounter challenges in raising one child, but these challenges could be multiplied should she have more than one child. Consequently, adolescent mothers should be knowledgeable about contraceptives so that they can make informed decisions about future pregnancies.

Variables affecting adolescent mothers' likelihood of using contraceptives

This equation reads: perceived benefits – perceived barriers = likelihood of behaviour change (Onega, 2000:271). These variables imply that an adolescent's perceived benefits of actions (using contraceptives effectively) minus the perceived barriers to accomplish these actions (transport costs and accessibility of contraceptives; fears that contraceptives might have dangerous or unpleasant side effects; contraceptive providers' attitudes) equals the likelihood that she will initiate and sustain action (use contraceptives effectively).

Benefits of using contraceptives

The effective utilisation of contraceptives enables adolescent women to control their fertility enabling them to acquire education, maintain employment and make independent marital choices (Fathalla, 1997:64). Mothers' lives could be saved by avoiding high risk pregnancies or unsafe abortions. The effective use of condoms prevents pregnancies as well as the transmission of sexually transmitted diseases (including HIV/AIDS). Contraceptives provide parents with the freedom to decide when to have their children and how many children to have at what intervals.

Barriers affecting the utilisation of contraceptives

Health care providers' refusal to provide contraceptives to adolescents could pose major barriers for adolescents to access contraceptives (Woods, Maepa & Jewkes, 1998:26). Adolescents might not utilise clinic

services if they feel intimidated by judgmental attitudes of nurses.

Although contraceptives are provided free of charge, some adolescents might encounter difficulties in paying for transport to reach these services. Clinic hours might coincide with school hours, making it impossible for school-going adolescents to access these services during weekdays and clinics do not operate over weekends or evenings in the Mkhondo area.

PURPOSE AND OBJECTIVES OF THE STUDY

The overall purpose of the study was to identify factors influencing adolescent mothers' non-utilisation of contraceptives in the Mkhondo area. The objectives guiding this investigation were stated in terms of the HBM as identifying

- individual perceptions
- modifying factors
- variables affecting the likelihood of adolescent mothers' utilisation of contraceptives (in the Mkhondo area).

ETHICAL CONSIDERATIONS

Permission to conduct the study was sought from and granted by the Mkhondo local authority. The registered nurses in charge of the two participating well-baby clinics were informed about the study and the local authority's permission to request adolescent mothers to complete questionnaires at these health care facilities. The right to full disclosure was respected because the researcher described the nature of the study as well as the participants' rights to participate or to refuse to participate in the study. This was done in the form of a letter and a researcher was available at the clinics to answer questions or clarify queries.

Each participant voluntarily signed a consent form. The signed consent form was placed in a box prior to completion of the questionnaire. Each completed questionnaire was placed in a container separate from the box with the signed consent forms. This ensured anonymity of the participants. Confidentiality was maintained because no names were disclosed in the research report, only numbers and percentages. The names of the two participating clinics were also not mentioned to



safeguard the geographic location of the participants. Any participant who wished to obtain a research report could contact the researcher who would supply such a report. The researcher's contact details were supplied on the enclosed letter should any participant desire to discuss any aspect or to obtain more knowledge about contraceptives.

RESEARCH DESIGN AND METHODS

This study used a quantitative descriptive design to identify and describe factors contributing to adolescent mothers' non-utilisation of contraceptives. The HBM was used as a framework for collecting data in the Mkhondo area of South Africa. The identified factors were categorised into individual perceptions, modifying factors and variables affecting the likelihood of adolescent women's utilisation of contraceptives.

Population

In this study, the research population comprised mothers aged 19 or younger at the time when their babies were born. These mothers had to attend one of the two participating well-baby clinics in the Mkhondo area during July and August 2004 when data were collected, and they had to be willing to participate in the study.

Sample

Non-probability or convenience sampling was used because questionnaires were distributed to adolescent mothers who attended one of the two participating well-baby clinics in the Mkhondo area. Not every adolescent mother had an equal chance of being included in the sample because there was no census or complete list of all adolescent mothers living in the area. De Vos (1998:191) stated that convenience sampling is the rational choice in cases where it is impossible to identify all the members of a population.

Research instrument

Factors influencing adolescent mothers' non-utilisation of contraceptives, identified from the literature review, were included in the questionnaire. The questionnaires were translated into Zulu. The questionnaire attempted to obtain data about adolescent mothers' biographic information, and to identify individual perceptions;

modifying factors and variables affecting adolescent mothers' likelihood of utilising contraceptives.

Pretesting the questionnaire

A pretest was conducted with twelve adolescent mothers who visited clinics. These twelve adolescent mothers did not participate in the actual study. All twelve managed to complete the questionnaires within 30 minutes and understood the questions. No apparent problems were encountered during the completion of the questionnaires, except that some Zulu contraceptive terms were unknown. English contraceptive terms were subsequently included in brackets in the Zulu questionnaire.

Reliability and validity of the research instrument

Reliability refers to the degree of consistency or accuracy with which an instrument measures the attribute it is designed to measure (Polit & Hungler, 1999:296; Uys & Basson, 1991:75). If a study and its results are reliable, it means that the same results would be obtained if the study were to be replicated by other researchers using the same method. The questionnaire items were derived from similar studies conducted in different areas of South Africa (Buga, Amoko & Ncayiyana, 1996:523-525; Ehlers *et al.* 2000:43-50; Ehlers, 2003a:13-20; Mwaba, 2000:30-33). The relevance of each item to the topic, factors contributing to adolescent mothers' non-utilisation of contraceptives, was deemed appropriate by two nurse researchers, a statistician and professional nurses working in the labour ward in the Piet Retief Hospital and in clinics in the Mkhondo area. A pretest was conducted to determine the clarity of the items and consistency of the responses.

Data collection

Volunteers from the Lovelife organisation handed out the questionnaires (with information letters and consent forms) from 12 July and till 3 September 2004, to every adolescent mother who visited one of the participating clinics and who agreed to complete a questionnaire voluntarily. When 107 adolescent mothers had completed questionnaires, no further participants could be found at the two participating clinics for five successive days. Then it was accepted that the number of participants at these two clinics had been exhausted,



concluding the data collection phase of the study.

No census frame was available, therefore it could not be established what percentage of adolescent mothers these 107 participants comprised. As questionnaires were handed out only to those who indicated their willingness to participate, the number of questionnaires handed out and returned correlated, amounting to a total of 107.

Data analysis

The 107 completed questionnaires were handed to a statistician for data analysis (N=107), using the Statistical Package for Social Sciences (SPSS version 12).

RESEARCH RESULTS

The data will be discussed in terms of the HBM's main components.

Individual perceptions

The research results revealed that only 49 (45.79%) participants believed that contraceptives prevented pregnancies, 14 (13.08%) believed that condoms prevented both pregnancies and STDs and 1 (0.93%) believed that contraceptives caused weight gain while 42 (39.25%) failed to respond to this item. As many as 38 (35.51%) participants did not indicate which contraceptive(s) they had used prior to their pregnancies. Out of the 107 adolescent mothers, only 32 (29.91%) had used condoms, 28 (26.71%); injections and 6 (5.61%) pills. None had used intra uterine contraceptive devices. Only 17 (15.89%) of the participants indicated that they had used traditional contraceptive methods such as drinking traditional medicines or tying a rope around the waist to prevent conception.

Subsequent to the birth of their babies, 64 (59.81%) of the adolescents mothers had used the following contraceptives:

- injections (Depo Provera or Nur-isterate): 29 (45.31%)
- condoms: 17 (26.56%)
- unspecified multiple methods: 14 (21.88%)
- pills: 3 (4.69%)

- emergency contraceptives: 1 (1.56%).

Those 43 (40.19%) adolescent mothers, who did not use contraceptives after their babies' births, risked further pregnancies.

Individual perceptions of adolescent mothers, similar to those that emerged during this study that might have influenced their non-utilisation of contraceptives, were identified during the literature review. Condoms were reportedly difficult and unpleasant to use (Watt, 2001:226). Some adolescents were ashamed to use contraceptives, and feared their parents' reactions should they use contraceptives and some distrusted the effectiveness of contraceptives (Mwaba, 2000:33). Adolescent mothers lacked knowledge about contraceptives and the effective utilisation thereof (Casterline, Sathar & UI Haque, 2001:95; Ehlers, 2003b:20; Ehlers, 2003c:20; Ehlers *et al.* 2000:48; Hulton, Cullen & Khalokho, 2000:35; Paikoff, 1990:204).

According to Ehlers (2003c:7) out of 250 adolescent mothers in South Africa, 85 (34%) did not know about contraceptives prior to their pregnancies. In the Kriel area of the Mpumalanga Province, 31.34% and in the Gauteng Province, 34.23% did not know about contraceptives although contraceptives were available free of charge at clinics in all these areas throughout South Africa (Ehlers 2003b:20; Ehlers *et al.* 2000:48).

Modifying factors

In this section the participating adolescent mothers' ages, educational status and parity will be addressed.

Participants' ages

The ages of the participating adolescent mothers become significant when correlated with the ages when they had sex for the first time and the ages when their first children were born. These statistics are displayed in Figure 1.

The adolescent mothers' ages ranged from 14 (n=2) to 19 (n=19), with an average age of 16.88 years. The modal age was 17 (n=41; 38.32%) when the participants' first children were born.

Of the 107 adolescent mothers who completed questionnaires, 102 (95.33%) had engaged in sexual

intercourse by the time they had reached the age of 17. The modal age when they had sex for the first time was 15 (n=29); but 2.8% (n=3) commenced sexual activities at the age of 12 while 8.42% (n=9) did so when they were 13 years old and 18.69% (n=20) at the age of 14.

Becoming mothers prior to the age of 18 could pose major challenges to the adolescent mothers to complete their schooling.

The participants' ages assume greater significance when their chronological ages are correlated with the ages at which they reportedly learned about menstruation, sexual intercourse, pregnancy and contraceptives, as displayed in Figure 2.

The percentages displayed in Figure 2 indicate that few participants knew about sexual intercourse, pregnancy and contraceptives at the age of 12. However,

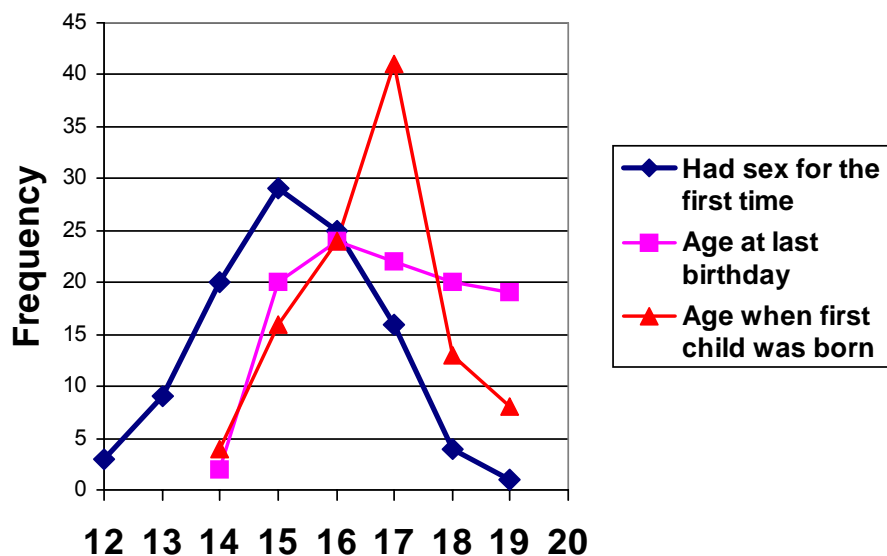


Figure 1: Significant ages in the lives of the participating adolescent mothers

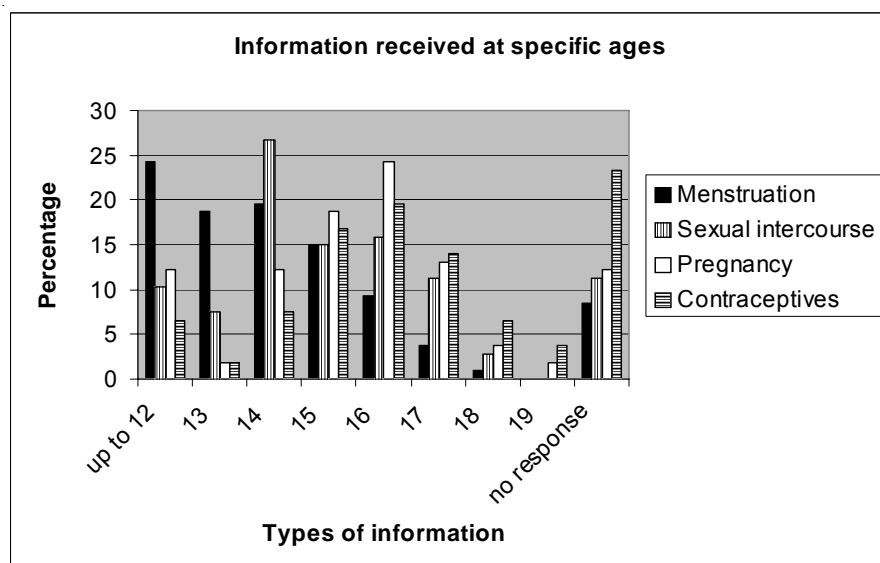


Figure 2: Ages when the participants received specific information

by the age of 14, many participants knew about sexual intercourse but few had been informed about pregnancy and even fewer about contraceptives. From Figure 2 it can be deduced that the participants received information about menstruation at the age of 12, but information about sexual intercourse and pregnancy was received by the ages of 14-16 only while knowledge about contraceptives seems to have been acquired at later stages. Of the participants 80 (74.77%) reportedly received their information from their mothers; 25 (23.36%) from clinic nurses; 20 (18.69%) from friends; 16 (14.95%) from magazines or newspapers; 14 (13.08%) from television; 12 (11.21%) from radio and 2 (1.87%) from their sisters.

Participants' educational status

Adolescents who lack general education might be unable to understand the relationship between menstua-

tion, coitus, fertility and conception (Mwaba, 2000:31) and might thus not comprehend how contraceptives prevent pregnancies. The statistics displayed in Table 1 indicate that 55.14% (n=59) of the participants had acquired at least grade 8 and could thus be expected to understand the physiology of conception as well as the basics of contraception. Similar to this finding, Ehlers *et al.* (2000:46) also reported that the majority of the adolescent mothers in the Gauteng Province, who participated in that study, had passed grades 10-12.

Parity

Of the participants, 89.0% had one child and 11.0% had two children. Being an adolescent mother aged 19 or younger with one child could be a challenge, but with two children it could become a major challenge to cope physically, emotionally and financially, especially while trying to complete one's schooling.

Table 1: Participating adolescent mothers' ages at the birth of their first children

AGE	FREQUENCY	PERCENTAGE
Up to 14	4	3.74
15	16	14.95
16	24	22.43
17	41	38.32
18	13	12.15
19	8	7.48
No response	1	0.93
TOTAL	107	100.00

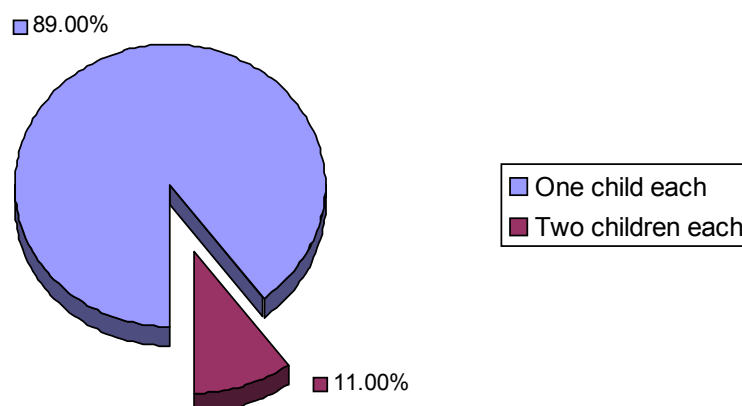


Figure 3: Number of children the participating adolescent mothers had

Variables affecting participants' likelihood of using contraceptives

Adolescents' likelihood of using contraceptives would be influenced by the perceived benefits to be obtained from such actions and the perceived barriers needed to be overcome in order to utilise contraceptives.

Benefits

The major benefit of using contraceptives is that it grants the woman an ability to control her fertility and to bear children if and when she is ready to do so. Considering the fact that all 107 participants were adolescent mothers, none of them had used contraceptives effectively to delay their pregnancies until they had completed their studies. Although numerous factors could influence adolescents' decisions as to whether or not to use contraceptives, they need knowledge about and access to contraceptives to be able to utilise them effectively.

Barriers

As many as 84 (78.50%) participants indicated that they did not experience any problems obtaining contraceptives or contraceptive information from their clinics.

However, some side-effects were reportedly experienced while using contraceptives, including prolonged menstruation, vaginal discharges, varicose veins, swollen legs and abdominal pains. Due the nature of the data obtained from completed questionnaires, it was impossible to ascertain whether these side-effects could indeed be attributed to the contraceptives, or to other possible causes such as sexually transmitted infections. All 17 (15.98%) participants who reported side-effects discontinued using contraceptives, risking future pregnancies.

Of the participants 98.13% reportedly accessed clinics on Thursdays only to obtain contraceptives. Apparently these participants were not aware that contraceptives were available at all clinics on all days of the week (previously contraceptives could only be accessed on Thursdays at clinics in the Mkhondo area). Only one participant could access contraceptives on Saturdays.

CONCLUSIONS

The conclusions will be summarised according to the major components of the HBM.

Individual perceptions

Lack of knowledge about contraceptives as well as negative attitudes towards the use of contraceptives might have influenced the participating adolescent mothers not to use contraceptives. Only 45.79% of the participants believed that contraceptives prevented pregnancies and as few as 13.08% believed that condoms prevented both pregnancies and sexually transmitted diseases (including HIV).

Modifying factors

The adolescent mothers' ages ranged from 14-19. Consequently they required, but failed to receive, adequate health education about menstruation, sexual intercourse, pregnancy and contraception before they reached the age of 14. Although some participants knew that contraceptives prevented pregnancies, they did not use contraceptives effectively to prevent pregnancies.

Another modifying factor could be that the majority (74.77%; n=80) of the adolescent mothers received education about menstruation from their mothers. These adolescent participants' mothers and other informants (clinic nurses, friends and educators) reportedly did not provide information about pregnancy and contraceptives, even if they informed the adolescents about menstruation and sexual intercourse.

Variables affecting the initiation of actions

Identified barriers which might have prevented the adolescent mothers from using contraceptives effectively to prevent unplanned pregnancies included contraceptives' side-effects, lack of knowledge about contraceptives, and problems of accessing contraceptives if clinic hours coincided with school hours, as well as the misconception that contraceptives could only be obtained from clinics on Thursdays.

LIMITATIONS

The following limitations, which could limit the



generalisability of the research results, were identified:

- some participants might have misinterpreted some items while completing the questionnaires;
- only adolescent mothers participated in this study; consequently the results might not be generalisable to adolescent girls who do not have children;
- the study was limited to adolescent mothers who visited two well-baby clinics in the Mkhondo area and might thus not be generalisable to adolescent mothers in other parts of the country, nor to adolescent mothers who did not visit these two clinics; and
- mainly Zulu-speaking adolescent mothers completed questionnaires, implying that the results might not be generalisable to adolescent mothers with other home languages.

Despite these limitations this study identified some factors contributing to adolescent mothers' non-utilisation of contraceptives.

RECOMMENDATIONS

Based on the conclusions, the following recommendations might begin to address some of the factors contributing to adolescent mothers' non-utilisation of contraceptives in the Mkhondo area:

- Girls should receive education about menstruation, sexual intercourse, pregnancy and contraceptives before they reach the age of 12 when a number of adolescent mothers reportedly experienced their menarches and some had their sexual debuts.
- Information sessions should emphasise that contraceptives, if used effectively, do in fact prevent conception.
- The advantages of using condoms, for preventing both pregnancies and sexually transmitted diseases, should be stressed as only a minority of participants believed this to be the case.
- Such education should be repeatedly offered and by the time the adolescent girls reach the age of 14, they should be knowledgeable about different contraceptives.
- Education about contraceptives should be emphasised especially to 16-year old adolescents as almost all participants had reportedly engaged

in sexual encounters by the time they were 17 years old. Renewed contraception education efforts might enable more adolescents to complete their schooling prior to becoming mothers.

- Contraception information sessions should also address side-effects that might occur from using specific contraceptives. Women need to know what side-effects to expect, what minor remedies could address which symptoms, and when and where to seek help should the side-effects persist. No contraceptive method should be discontinued unless another one had been implemented if the woman wishes to avoid becoming pregnant. All women should be advised to use condoms should they have to discontinue the use of any contraceptive method for whatever reason, in order to prevent pregnancies.
- As most adolescent mothers received their sex education from their mothers, but lacked information about pregnancy and contraception, a concerted drive should be launched in the Mkhondo area to teach adult women (specifically those who are mothers to adolescent daughters) about pregnancy and contraception.
- Pregnant adolescents should also receive education on the use of contraceptives to plan future pregnancies. This could be done during their visits to well-baby clinics.
- Contraceptives should always be available at all clinics.
- Contraceptive clinics could operate on Saturday mornings specifically for adolescents as this would increase the accessibility of such clinics to learners and working adolescents. Furthermore, adolescents would not fear meeting their mothers, aunts or educators at these clinics scheduled specifically for adolescents.

CONCLUDING REMARKS

Adolescent mothers' non-utilisation of contraceptives in the Mkhondo area was influenced by their lack of knowledge about pregnancy and contraception by the time they started engaging in sexual intercourse. Reportedly the participants had been informed about menstruation and sexual intercourse at earlier ages but only learned about pregnancy and contraceptives at later ages. Enabling adolescents' mothers (and possibly also their educators) to provide more effective education

about contraceptives as from the age of 12 might enhance adolescents' utilisation of contraceptives in the Mkhondo area.

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