

From the Division of International Health (IHCAR), Department of Public Health
Sciences, Karolinska Institutet, SE-171 77 Stockholm, Sweden

Adolescent Pregnancy and Parenthood in Swaziland

Quality of care, community support and
health care service needs

Patricia Thuli Mngadi



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ABSTRACT

The aim of this thesis was to study – from different perspectives – adolescent pregnancy and parenthood in Swaziland. The specific objectives were to: i) explore maternity care practices and support for adolescent mothers during their stay in the maternity unit; ii) study the postpartum support to adolescent mothers and their newborns at home by families, communities and health professionals; iii) explore adolescents' views regarding risky sexual behaviour; iv) explore adolescent boys' views on adolescent pregnancy and parenthood; v) explore health care staff provision of adolescent sexual and reproductive health care services in Swaziland.

Qualitative and quantitative studies were carried out in four regions in Swaziland. Observations and checklists were used to assess the maternity care practices and semi-structured interviews were held with adolescents during their stay in the maternity ward (I). Seven days after delivery adolescent mothers were visited and interviewed in their homes (II). Twenty-four Focus Group Discussions (FGDs) with adolescent girls and boys (III) and further six FGDs with Swazi adolescent boys were conducted (IV). Questionnaires were distributed to health care staff in eleven health facilities in two regions in Swaziland. Statistical software was used for analysis of quantitative data (I, II, V) and content analysis was used for analysis of qualitative data (II, III, IV).

Although the pregnant adolescents perceived that they were met in a welcoming manner by the midwives, the findings from the physical examination were poorly explained to them. None of the 33 adolescents were encouraged to bring a social support person with them during labour. All the girls were admitted and started with an uneventful labour, 12 (36%) had normal deliveries; nine (27%) had an episiotomy, one (3%) was delivered by vacuum extraction and nine (27%) had a lower segment caesarean section performed. Seventeen (71%) adolescent mothers started breastfeeding their babies within one hour after birth and 7 (29%) started after two hours. Most of the adolescents were told to come back for postnatal check up (I).

All adolescents were aware that missing a menstrual period was indicative of pregnancy and 30 (97%) were aware of different contraceptive methods but had not used any. They had got information about contraceptives from their peers. Twenty-five (81%) did not want the pregnancy and 15 (48%) had to drop out-of-school. Twenty-six (84%) first informed the partner about the pregnancy and none initially told their parents for fear of being scolded, beaten or chased away from home. Four (13%) had been scolded by midwives. Twenty-four (77%) had been abandoned by their partners after the birth of the baby, 15 (48%) had support from their parents, 14 (45%) from other relatives and 19 (61%) were satisfied with the support they received from their parents and other relatives (II).

Age at first intercourse, peer pressure and trust in the relationship were found to be important factors in decision-making for risky sexual behaviours. Participants thought that the ideal age for starting sexual activity was 16 for girls and 17 years for boys. The majority believed that condom use implies a lack of trust in a partner and that condoms should be used when people have extra marital sex e.g. with prostitutes and casual partners, infected with STI and that condom use is un-pleasurable and artificial. There were generally negative attitudes to condom use. Adolescents were influenced by their peers to engage in sexual activity and the majority agreed that sex with multiple partners was common among them (III).

Boys wanted to test what it meant to have sex. The boys commonly denied the pregnancy, feared that their parents would chase them away from home and that their peers would laugh at them if they had impregnated a girl. The boys believed that unfaithfulness was common in both sexes and thus could not trust the girls. Boys were aware that adolescent mothers and their babies faced serious health and social problems. The boys asked for better sexual and reproductive health (SRH) education and lacked communication about sexuality with adults. The boys requested the Government to provide jobs for them (IV).

Most common services that were provided were regarding STIs/HIV/AIDS, pre-and post-test counselling and testing on HIV, contraceptives and condom use. Half of the nurses/midwives had no continued education and lacked supervision on ASRH care. The majority had unresolved moral doubts, negative attitudes, values and ethical dilemmas towards abortion care between the law, which is against abortion, and the reality of the adolescents' situation. Forty-four participants wanted to be trained on post abortion care while eight on how to perform abortions (V).

Implications for practice: The quality of maternity care for adolescents needs attention and evidence based practices. Provision of social support should be followed, including contraceptive counselling for both girls and boys to prevent STIs/HIV and unplanned pregnancies. Nursing, midwifery curricula should integrate comprehensive ASRH. There is need for political support for the ASRH programme in Swaziland.

Key words: Adolescents, adolescent pregnancy, content analysis, FGDs, gender identity, maternity care, risky sexual behaviour, social support, Swaziland.

LIST OF PUBLICATIONS

This thesis is based on the following papers, which will be referred to by their Roman Numerals I-V.

- I Mngadi PT, Zwane IT, Ransjö-Arvidson A-B, Ahlberg BM. Quality of maternity care for adolescent mothers in Mbabane, Swaziland. *Int Nurs Rev* 2002;49:38-46.
- II Mngadi PT, Zwane IT, Ahlberg BM, Ransjö-Arvidson A-B. Family and community support to adolescent mothers in Swaziland. *J Adv Nurs* 2003; 43:137-144.
- III Zwane IT, Mngadi PT, Nxumalo MP. Adolescents' views on decision-making regarding risky sexual behaviour. *Int Nurs Rev* 2004;51:15-22.
- IV Mngadi PT, Faxelid E, Zwane IT, Höjer B, Ransjö-Arvidson A-B. Pregnancy and parenthood among adolescents: what are the views of boys in Swaziland? (Submitted).
- V Mngadi PT, Faxelid E, Zwane IT, Höjer B, Ransjö-Arvidson A-B. Provision of adolescent sexual and reproductive health care services by health care providers in Swaziland. (Submitted).

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ACRONYMS AND ABBREVIATIONS

AIDS	Acquired Immunodeficiency Syndrome
ANC	Antenatal Care
ARV	Anti-retrovirus
ART	Anti-Retroviral Therapy
ASRH	Adolescent Sexual and Reproductive Health
BFHI	Baby Friendly Hospital Initiative
CPD	Cephalo Pelvic Disproportion
FCI	Family Care International
DALY	Disability-Adjusted Life Years
FIGO	Federation of International Gynaecologists and Obstetricians
FP	Family Planning
GFATM	Global Fund against AIDS, Tuberculosis and Malaria
HIV	Human Immunodeficiency Virus
ICM	International Confederation of Midwives
ICPD	International Conference on Population and Development
IEC	Information, Education and Communication
MGDs	Millennium Development Goals
MCH	Maternal and Child Health
MOHSW	Ministry of Health and Social Welfare
NERCHA	National Emergency Response Council on HIV/AIDS
NGO	Non-Governmental Organisation
OVC	Orphans and Vulnerable Children
PHC	Primary Health Care
PLWHA	People Living With HIV/AIDS
PMTCT	Prevention of Mother to Child Transmission
RHMs	Rural Health Motivators
RHMT	Regional Health Management Team
SCSO	Swaziland Central Statistics Office
SI	Swedish Institute
SHAPE	Schools Health and Population Education
SNAP	Swaziland National AIDS Programme
STIs	Sexually Transmitted Infections
TBA	Traditional Birth Attendant
UN	United Nations
UNAIDS	United Nations Programme on HIV/AIDS
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
VCT	Voluntary Counselling and Testing
WHO	World Health Organization

DEFINITION OF TERMS

Adolescence	Young people aged 10-19 years (WHO, 2002).
Doula	A lay woman, trained to give labouring women comfort, support and reassurance.
Empowerment	Refers to the ability to control one's situation and/or the change in power relations and social structure.
Gender	Is the socially defined roles and responsibilities assigned to men and women, in a given culture, location, society and time (UNFPA, 2003).
Gender equality	Means giving men and women the same or equivalent access to and control over development resources, benefits and services.
Gender equity	Is the quality of being fair, just and right for either men or women.
Gender roles	The particular economic and social roles, which society considers appropriate for women and men.
Normal labour	Is spontaneous onset of labour, low risk at the start of labour, remaining so throughout labour and delivery. The infant is born spontaneously in a vertex position between 37 and 42 completed weeks of pregnancy. After birth the mother and infant are in good condition.
Quality of care	Quality of care implies both the provision of a package of quality information/counselling and a full complement of quality adolescent reproductive health services.
Reproductive health	A state of complete physical, mental, social well-being and not merely the absence of disease or infirmity in all matters relating to the reproductive system, to its functions and processes (UNFPA, 2003).
Reproductive rights	These are integral to the concept of health. They are based on the vision that all individuals have the right to attain the highest standards of sexual and reproductive health and to make reproductive choices free from coercion (UNFPA, 2003).
Sex	Refers to the genetic/physiological or biological characteristics of a person which indicates whether one is female or male (WHO, 1998).
Sexuality	Refers to culture-bound conventions, roles and behaviours involving expressions of sexual desire, power and diverse emotions mediated by gender and other aspects of social behaviour (class, race/ethnicity etc). Distinct components of sexuality include: sexual identity, sexual behaviour and sexual desire (Gagnon & Parker, 1995).
Skilled birth attendant	Refers to people with midwifery skills, who have been trained to proficiency in the skills necessary to provide competent care during pregnancy and childbirth.

PREFACE

After graduating as a nurse/midwife in 1983 from the Swaziland Institute of Health Sciences, I was posted at Nhlangu Health Center in the Shiselweni region. My day-to-day duties were to work with Maternal and Child Health (MCH) services including Family Planning (FP) services. During that period, FP services were provided only to married women and only if they had the consent by the husband to use contraceptives. The services were not receptive to adolescents or unmarried women with special needs. During that time, there was only one clinic, operated by the Family Life Association of Swaziland (FLAS), which offered information, education and communication (IEC), and counselling in FP services to the youth, on condition that they were married or had parental consent. Gradually it came to my understanding that health services addressing adolescents' needs were grossly lacking.

I was later given the opportunity to continue my education first for a Bachelor of Arts at Botswana University and for Master of Public Health in 1999 at Karolinska Institutet. The focus of my master thesis was on adolescent sexual and reproductive health (ASRH).

During the past years, there have been a number of projects in Swaziland working with adolescents and a few have focused on adolescent sexual and reproductive health care services. My observation was that many of these projects lack detailed conceptual understanding of ASRH including gender issues. During my research training at the Division of International Health (IHCAR), Department of Public Health Sciences, Karolinska Institutet, Stockholm, Sweden, I attended a course on "Gender in Health Research": Integrating Medicine and Public Health", which broadened my understanding and thinking about gender issues. I have attempted to provide an empirical understanding of ASRH issues in relation to gender for use in future improvement of the SRH situation for adolescents in Swaziland.

INTRODUCTION AND BACKGROUND

This thesis is concerned with the quality of care, community support, views and needs related to ASRH services in Swaziland. The studies discussed in the thesis were conducted in Swaziland “between” 1998-2005 and are based on research collaboration between Faculty of Health Sciences, Department of Midwifery, University of Swaziland, Mbabane, Swaziland, Division of International Health (IHCAR), Department of Public Health Sciences and Division of Reproductive and Perinatal Health Care, Department of Women and Child Health, Karolinska Institutet, Stockholm, Sweden. The research questions focus on quality of maternity care for adolescents in Mbabane (I) and the family and community support to adolescent mothers and their newborns following birth (II). Following the findings of Paper I and II the new research questions addressed; what are the views and needs of adolescents on decision-making regarding risky sexual behaviour? (III); what are the views of Swazi boys on adolescent pregnancy and parenthood? (IV). The last paper is concerned with the provision of ASRH care services by health care providers in Swaziland (V). In this context, quality of care and support should not be limited to the period the adolescent is in contact with health care system. It should be extended to understand the gender and reproductive rights perspectives including the environment in the adolescents’ families and communities.

The reproductive health situation for adolescents

The World Health Organization (WHO) defines adolescents as young people aged 10-19 years (WHO, 2003a), a definition used throughout this thesis. Adolescence occupies a period of major physical, psychological and social changes (Dickens & Cook, 2005). In general terms, adolescence is considered a time of transition from childhood to adulthood, during which young people experience changes following puberty, but do not immediately assume the roles, privileges and responsibilities of adulthood. Adolescent make up one-fifth (20%) of the global population, which is over a billion people, with more than 85 percent residing in low income countries (WHO, 2002).

The International Conference on Population and Development (ICPD), held in Cairo in 1994, stressed that adolescents and young people have unique reproductive health services (RH) needs that are distinct from those of adults and that adolescents had been poorly served. The ICPD urged member states to address the information and ASRH services needs. The ICPD also stressed that men and women are equal partners in both sexual and reproductive health and rights (SRHR) aspects. In particular, it said, *“efforts should be made to emphasise men's shared responsibility and promote their active involvement in responsible parenthood, sexual and reproductive behaviour, including HIV prevention and prevention of unwanted pregnancies and high-risk pregnancies”* (UNFPA, 2003).

The UN general assembly meeting in 1999, commonly known as ICPD + 5, reiterated this concern. Key actions for the further implementation of the Programme of

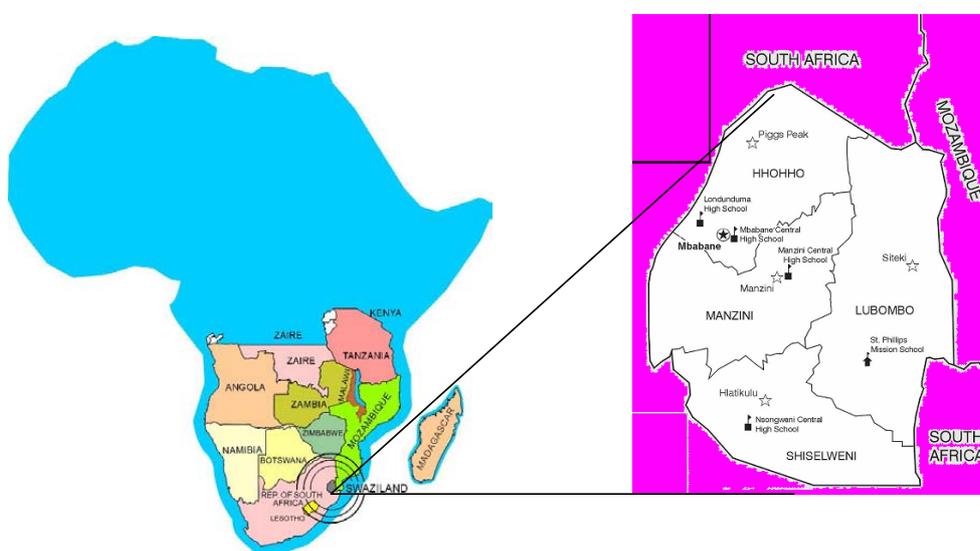
Action of ICPD addressed the need to “protect and promote the right of adolescents to enjoy the highest attainable standard of health, provide appropriate specific user friendly and accessible services to address effectively their reproductive and sexual health needs including information, education, counselling (IEC) and health promotion strategies (paragraph 73a) (UNFPA, 2003).

The neglect of the adolescents needs may have major implications for the future since risk-taking in sexual and reproductive health (SRH) behaviour during adolescence can have far-reaching consequences for adolescents' lives as they develop into adulthood (UNFPA, 2003). While the common image of adolescents is one of relative freedom from ill health, this is not necessarily the case and nearly ten percent of the global burden of disease, in terms of disability-adjusted life years (DALY) lost, is born by young people between 10 and 19 years of age (Lule et al., 2006). In addition, many events and behaviours that are established during adolescence can lead to health problems later in life; for example, drinking alcohol and smoking tobacco often start in adolescence but the health effects appear much later. Adolescence is also a time when most young people start to engage in sexual activity. While age at marriage is rising in virtually every country, age at first intercourse is falling (Call et al., 2002). Premarital sexual activity may not be planned and many young people do not use contraceptives or use less effective traditional methods. As a result, some 14 million adolescents give birth each year and it is estimated that between one-third and two-thirds of these births are unplanned (WHO, 2004).

Like in other low-income countries, Swaziland is faced with the enormous challenges of translating the ICPD recommendations into practice. There is increasing evidence of pre-marital sexual activity among adolescents in Swaziland, of risky sexual behaviour, multiple partners, casual sexual experience and non-use of condoms. Also of concern, are the high rates of sexually transmitted infections (STIs) and HIV, unsafe abortions and unwanted pregnancies among adolescents (SHAPE, 2003). Therefore, Swazi adolescent boys like adolescent girls have special SRH needs. Some boys face more risks than others but all have needs that may not have been considered or they are socialised in ways that lead to violence and discrimination against women. The SRH needs of men, beyond their roles as women's partners have received little attention from the global RH researchers. Some people have feared that involving men in women's RH would undermine attempts to empower women (Nadeau & Bankole, 2003). This changed only with the onset of the AIDS epidemic when public health experts required better knowledge of men's and women's sexual behaviour. According to Nadeau & Bankole (2003) men's health care needs and the significance of men's role go far beyond HIV and AIDS. They state that men and boys play key roles in the prevention and occurrence of sexually transmitted infections (STIs) including HIV/AIDS and unplanned pregnancies. Despite men's and boys needs, adolescents in Swaziland represent an under-served group both in terms of health care services and research.

Swaziland's location, demography and socio-economic situation

The Kingdom of Swaziland is one of the smallest countries in Southern Africa. It is bordered in the north, west and south by the Republic of South Africa and in the east by Mozambique. Swaziland is divided into four regions: Hhohho, Manzini, Shiselweni and Lubombo. The country is further sub-divided into 55 administrative centres (*Tinkhundla*) under which there are about 200 chieftaincies. The central government, which is based on a Parliamentary Cabinet System, is in-charge of public administration and economic and social development with Swazi Nation Council (SNC) administering the communal lands.



Swaziland was colonised by the British in the early 20th century and got its independence in 1968. The country has a population of approximately 1.1 million people and covers an area of 17,364 square kilometres, with a population growth rate of 2.9 percent. Over 40 percent of the population is below the age of 15 years. The majority of the inhabitants speak Siswati and English, which are both official languages. About 70 percent of the population of Swaziland lives in rural areas in scattered homesteads. Subsistence agriculture occupies more than 80 percent of the population. The literacy rate is high, slightly higher among males (82.6%) than among females (80.8%) (CSO, 1997). Selected socio-economic indicators are presented in Table 1.

Table 1. Demographic, Socio-economic and HIV indicators of Swaziland.

Demographic	Estimate
Total Population (millions)	1.1
Total female population (%)	53
Total male population (%)	49
Total area (sq km)	17,863
Total population under 15 yrs (%)	49
Annual population growth rate (%)	2.9
Population in urban areas (%)	23.5
Population in rural area (%)	76.5
Crude birth rate (births per 1,000 pop.)	33.3
Crude death rate (deaths per 1,000 pop.)	27.7
Total fertility rate	4.6
Life expectancy, F/M (yrs 2006)	36 / 39
Antenatal attendance (%)	93
Infant mortality rate (per 1,000 live births)	86
Under-five mortality rate (per 1,000 live births)	135
Maternal mortality rate (100,000 live births)	370
Adolescent pregnancies (%) out of the total deliveries	30
Socio-economic indicators	
Gross national income, per capita (GNP) (USD)	4,530
Per capita total expenditure on health (USD)	324
Total literacy (15 years and above, %)	81.6
Total literacy male (%)	82.6
Total literacy female (%)	80.8
Secondary enrolment (%) M/F	33 / 26
Unemployment adults (%)	40
Unemployment among adolescents (%)	49
Inflation rate (%)	4
HIV indicators	
Adult prevalence of HIV/AIDS (15-49 yrs, %)	42.6
Prevalence of pregnant adolescents (15-19 yrs, %)	30
Estimated No. people living with HIV/AIDS (0-49 years)	210,000 - 230,000
Reported No. receiving ART (15-49 yrs) in 2004	8,373
Estimated No. needing ART in 2004	36,500
No. of VCT sites for HIV	25
No. of people tested at all sites	30,000
Prevalence of HIV among adults with TB (15-49 yrs) in 2003 (%)	75-80

Source: World Bank Report, 2006; WHO/UNAIDS Report, 2006, UNESCO Report, 2006.

Although Swaziland is classified as a lower middle-income country with an annual per capita income of USD 1,360 in 1999, the socioeconomic indicators show pervasive poverty and wide disparities in the distribution of wealth, reflecting huge inequities in access to basic services and opportunities vital to life. A few industries and individuals control the bulk of the wealth of the country. It is estimated that 10% of the population control about 40% of the national income, and that 66% of the population live below poverty line (KOS/UN, 2006).

Swaziland is heavily dependent on South Africa from which it receives nine-tenths of its imports and to which it sends more than two-thirds of its exports. This dependency has profound effects on the Swazi economy. With its strong economy and generous investment incentives, South Africa attracts potential foreign investors away from Swaziland, thus further reducing government tax revenue and job opportunities in Swaziland (UNICEF, 1994). Swaziland has experienced a national economic slowdown evidenced by depressed employment opportunities, poor agricultural production, absence of effective food security and governance policies, increasing poverty levels compounded by the effects of HIV/AIDS, which are all undermining livelihoods. Because of the high unemployment rate especially among the rural population, there is considerable migration to urban areas and to South Africa. More females than males migrate to urban areas. Given the high unemployment rate of 40%, the women are likely to engage in commercial sex work and are exposed to higher risk of infection with STIs/HIV/AIDS (UNICEF, 1994).

The Swazi family as a social support structure

The traditional Swazi (extended) family structure where many generations live together in a homestead has fragmented. Traditionally, women and men had separate huts of their own but in the same yard. Older women used to sit with the girls in front of their huts, "*Liguma*" to discuss issues related to growing up and what was expected from a girl and wife. Similarly older men had forums in front of their huts "*Lisango*" for discussing issues of growing up with the boys when they were approaching adolescence stage. According to Swazi tradition, initiation ceremonies has been and are still to a small extent carried out at puberty for young girls at "*Egumeni*" and boys at "*Esangweni*" immediately after their menstrual cycle or experience of wet dreams respectively. Girls were/are instructed on how to preserve their virginity and how to conduct themselves in marriage (Kasanene, 1993). Boys were/are instructed on techniques of thigh sex and love-making, "*Kucencuka*", which is a sexual technique that involves sexual intercourse whereby at the point of ejaculation, the man removes his penis from the vagina to avoid releasing his sperm in the female vagina (coitus interruptus), for prevention of pregnancy in case of pre-marital sex as a form of FP. This was a traditional family planning practice that was mainly practiced by unmarried couples. This technique has been handed down to young people during the initiation processes. These traditional rites are disappearing in Swaziland. Contact with foreign ideas through travels and the media have meant that young people have got new and different values and expectations such as lack of respect, which have obliterated the

family control (Dlamini, 2005). Schooling has also to a certain extent removed children away from the control of their parents and has attempted to continue with the socialization of children with less impact. Traditional parenting, which was embedded on the principle of collective authority, has been eroded by the influences of urbanization, nuclearization of families and individualism resulting in a new set of contemporary principles and values (Dlamini, 2005).

The Health System in Swaziland

The health care programmes in Swaziland are coordinated at the central level by the Ministry of Health and Social Welfare (MOHSW) and at the regional level by the Regional Health Management Teams (RHMTs). The RHMTs in each region oversees the functioning of services with treatment at all government-run medical centres. The service is highly subsidised in an effort to place health care within the reach of everyone. About 80 percent of the total population resides within 8 km radius of a health facility. The country has both public and private health facilities distributed around the country. They are divided into three main levels: primary, secondary and tertiary and decentralized into four administrative regions (KOS, 1999). In principal the health service provision is free at primary level but at secondary and third levels the individual patients pay a small treatment fee. The costs to cover the major health expenditures come from taxes and donor agencies. The total health expenditure per capita is 324 USD (WHO/UNAIDS, 2006). Swaziland on average has spent about 9 percent of its budget on health during each of the last ten years. About 76 percent of the health budget is allocated to curative services. Only 14 percent is allocated to preventive and health promotion services. With increasing morbidity due to AIDS related conditions, the health expenditures are increasing (MOHSW, 2000).

The government and the private sector (missions/religious organizations, non governmental organizations (NGO) and companies) offer modern health care services while traditional health care is offered by indigenous traditional healers and active traditional birth attendants (TBAs). The primary level health facilities consist of clinics and outreach sites. At this level services focus on environmental health, antenatal care (ANC), postnatal care, immunizations, family planning (FP), diarrhoeal diseases and respiratory tract infections. In addition to the nurses/midwives and nursing assistants at the primary level, the service is assisted by 4,000 trained Rural Health Motivators (RHMs) and approximately 3,000 trained or self taught TBAs. The secondary level health care system is made up of Health Centers (HCs) and the Public Health Units (PHUs) serviced by nurses/midwives, nursing assistants and at least one general practitioner. Finally the tertiary level, consisting of hospitals with the Mbabane Government Hospital operating as a national referral hospital (*Swaziland Rural Health Initiative*, 1998), is manned by nurses/midwives, nursing assistants, general and specialized practitioners and other biomedical staff. The hospitals provide the highest level of health care; attend to emergencies and referral cases from outlying clinics and centers while also providing supervisory services through their public health units (Table 2).

Table 2. Organization of health care system

	Govt	Mission	Private	Company	NGO	Total
Hospitals	4	2	-	-	-	6
Health centres	5	-	3	5	-	13
Public Health Units	7	1	-	-	-	8
Clinics	61	29	46	17	2	155
Outreach sites	145	40	9	2	10	206
Total	222	72	58	24	12	388

Source: MOHSW/WHO, 2004

The disease profile of the country is that of a typical developing country, reflecting poor socioeconomic conditions, with some element of epidemiological transition, as typified by rise in the prevalence of non-communicable diseases. Because it is a lower middle-income country, there is a reasonable level of infrastructure. Swaziland has high maternal mortality, high infant and under-five mortality (Table 1). According to the health Statistics Report 2004 (MOHSW, 2004), the top five major causes of out patient consultations were respiratory diseases (23.6%), skin disorders (12.4%), diarrhoeal diseases (11.9%), genital disorders (6.9%) and digestive disorders (5.5%). The five top major causes of inpatient mortality in the same year were pulmonary tuberculosis (17.2%), gastro-enteritis and colitis (12.5%), AIDS (8.8%), pneumonia (7%) and bronchopneumonia (3%). In the under 5 year age group, the top five causes of death were gastro-enteritis and colitis, bronchopneumonia, pneumonia, tuberculosis and malaria. These were also the causes of death in the under 1 year age group. Many health problems are attributed to unclean water supply, insufficient or poor nutrition, lack of proper sanitation and poor housing conditions.

The country is experiencing a number of mental health problems, which include schizophrenia, epilepsy and depression disorders. Organic disorders such as chronic hypertension, diabetes and HIV/AIDS are associated with mental ill-health as well as psychosocial problems due to stress and unemployment. However, the magnitude of the problem has not been well documented and trends not to be given adequate attention. The people of Swaziland need to adopt positive lifestyles that would help in the promotion, prevention, maintenance and restoration of their mental health.

According to the approximation, there are a total of 188 doctors/physicians and 3,200 nurses/midwives and about 700 nursing assistants in the country. Based on the estimated population of 1.1 million, the physician/population ratio is 1:5953 and the nurse/population ratio is 1:356. Almost half of the nurses/midwives work in the private sector. Half of the nurses in the country are also qualified as midwives. There is an uneven distribution of personnel among the rural/urban communities. The majority of personnel who have specialised in certain medical fields are based in urban settings. Swaziland has no medical school so medical students go abroad to obtain a medical degree. Nurses are trained at two institutions in the country, the Faculty of Health

Sciences, University of Swaziland, and the Nazarene Nursing College. The two nursing schools receive about 500 annual applications and they are able to take 80 to 90 entrants. Basic nursing training lasts three years but the majority of students do either one additional year of midwifery or a five-year course to obtain a Bachelor in Nursing Sciences. There is one school for nursing assistants (Good Shepherd Hospital) in the country where the training lasts two years and has an annual output of 20 to 30. About 90 nurses and 60 midwives graduate each year in Swaziland.

Nurses and midwives are the backbone of the health care system in Swaziland, being the larger cadre of health personnel and key to implementing both preventive and curative health measures. They are often faced with demoralising working conditions, have low pay and status and have little support to help them cope with the stress of their work. As a result nurses and midwives are leaving for other countries that can offer better conditions and pay (Kober & Van Damme, 2006). With the bleak health situation of the adolescent generation because of the inadequate SRH services for them, there has been a growing demand to prepare nurses, midwives and physicians to meet the ASRH needs.

Swaziland and HIV/AIDS

Ever since the first HIV case was reported in 1986, the epidemic has continued to increase. According to the Sentinel Sero-surveillance Report 2005, the country has the world's highest HIV prevalence rates, which stands at 42.6 percent. The rapid rise has been consistent among the four regions and it is noted in rural as well as in urban areas. As the epidemic matures, the impact is becoming visible through an increasing number of patients suffering from AIDS opportunistic infections, an increase in mortality rates and a rapidly growing population of orphans and vulnerable children (OVC). It is estimated that the number of orphans, which was about 32,000 in 2001, will increase to over 120,000 (approximately 15% of the population), by 2010 (MOHSW, 2005). Already the problem of orphans is overwhelming the capacity of the extended family to cope and as such child headed households are on the increase, school dropouts, hunger and deepening poverty is evident in the population.

As a result of the HIV/AIDS epidemic in the education sector it is projected that there will be an increase in children not enrolled in primary school from 3.5 percent in 1999 to 30 percent by 2015 because of affected teachers. The quality of education may also decline due to increased HIV/AIDS related deaths among teachers. The ratio of teachers to students has decreased from 1:35 in 1997 to 1:52 in 2000 (MOE, 1999). In the health sector, the demand for hospital beds has increased with HIV/AIDS-related conditions taking up more than 50 percent of the beds. In the hospitals, it is estimated that 80 percent of bed occupancy in the medical and pediatric wards is HIV/AIDS related (MOHSW/WHO, 2004). There is an increasing demand for the health services and health workers complain of feeling overwhelmed and burn-out (Kober & Van Damme, 2006).

One of the key features of the HIV/AIDS epidemic is that it affects the most productive part of the population (15 to 49 years). Because of the HIV epidemic, there is generalized congestion in hospital wards, increasing the burden both at the hospital and at home and the environment at home is ill prepared for this task. The families are affected by a reduction in income because of the loss of their productive members as a result they are struggling to provide basic care. Highly trained and educated individuals are few and their replacement result in great national costs. Misconceptions, risky sexual practices and stigma surrounding HIV/AIDS are key obstacles to HIV prevention (Ndubani, 2002; Campbell et al., 2005). The enormous and complex task of preventing HIV/AIDS on a community wide level as noted by others requires not only medical scientists but also social scientists such as sociologists, economists and anthropologists (Freudenthal, 2000; Campbell et al., 2005). Therefore the control of the spread of HIV/AIDS should not only focus on the search for a cure or a vaccine for the virus, but it is also important to take into account the complex political, legal, cultural, economic and social contexts in which the epidemic occurs and the denial and stigma attached to HIV/AIDS (Whiteside et al., 2003). Influence behavior change and effective provision of Anti-Retroviral Therapy is a more realistic approach to slow down the spread of the virus.

Clinical care has been strengthened by the development of national guidelines and the introduction of Anti-Retroviral Therapy (ART) in Swaziland. In 2003, an ART programme was started with funding from Government and the Global Fund for AIDS, Tuberculosis and Malaria (GFATM). By the end of 2004, it was estimated that 7,000 people were on ART. The target for the end of 2005, was that 13,000 of the estimated 32,000 people living with HIV/AIDS (PLWHA) should be on ART, as part of WHO's project, "3 by 5" initiative strategy, whereby 3 million HIV positive should be on ART the year 2005 (SNAP, 2005). In addition, prevention of mother to child transmission (PMTCT) is gradually being introduced in antenatal care facilities. Support to OVC is being scaled up, including the payment of school fees, the provision of food supplements and rehabilitation of shelter. It is estimated that at least 262,000 people in Swaziland are facing food/income deficit and the majority infected by HIV are women. Adolescents who have lost both parents due to AIDS become the head of those families. These adolescents are at high risk of exploitation, sexual abuse, rape, incest, violence and unwanted pregnancy because of lack of parental guidance and security.

Adolescent health in a gender perspective

Gender refers to social, cultural and historical constructions of masculinities and femininities and the roles and responsibilities that are assigned to men and women in a given culture, location, society and time (WHO, 1998). Sex refers to biological differences between women and men (Rubin, 1975). Gender construction is critical and adolescent boys and girls learn to think and act the way they do, because of the concepts about femininity and masculinity that they adopt from their culture. Adolescents' relationship dynamics are often characterized by unequal decision-making between partners and generally by poor communication about sexual matters. Sexual

relationships among adolescents also appear to be driven by pressure from peers and partners to engage in early and unprotected sex as markers of trust or commitment (Gage, 1998; Ahlberg et al., 2001; Jewkes et al., 2001; Harrison et al., 2001; Wamala & Lynch, 2002).

A girl's identity is mainly centred on roles as future wives and mothers. Without a son or without any child a woman's status within the family is endangered and she can expect that the husband take a second wife to ensure that a son is born (Kasanene, 1993). In Swaziland, adolescent girls in their up-bringing are expected to do all the house hold chores, cook, fetch water from the river, collect fire wood from the forest, wash dishes, wash clothes and take care of other young siblings in the family. They are also told to "*cinisela*" meaning (to be strong) even when they are experiencing pain, for an example "*a woman should not cry when she is in labour and experiencing labour pains*" and "*a girl should not question a boyfriend if he has fallen in love with another girlfriend*".

In a similar way a boy is given masculine tasks such as herding cattle, hunting and house construction. He is also expected to marry and have children. Men's masculinity esteem is boosted through sexual experiences and a man may have as many girlfriends as he wishes without being reprimanded by society (Kasanene, 1993). Sexual activity among adolescents is constrained by clear norms of female sexual respectability, abstinence and taboos around the discussion of sex (Dahlbäck et al., 2003). The greatest burden of reproductive ill health arises from conditions that affect only women and girls, which are related to pregnancy and childbirth (Cottingham & Myntti, 2002).

In all societies, the definition of women's health is linked to their reproductive health. The Safe Motherhood Initiative, MCH and PHC are existing health programs that reinforce the assumption that women have no health needs outside of those determined by motherhood and the medical community (McFadden, 1994). Central to any understanding of health inequities is the distribution and uses of power (Wamala & Lynch 2002). Poverty, inequitable gender relationships between men and women, poor access to health care, inadequate education, violence, a variety of economic, political and cultural factors adversely affect the health and well being of millions of women and girls worldwide (WHO, 1998). In Africa, mothering equates successful womanhood and as a consequence health workers tend not to attend to women at a health facility for needs other than pregnancy and medical care of her child, even though most of the health care providers tend to be women themselves (WHO, 1998). In general, women's gynaecological, mental and emotional needs are marginalised (McFadden, 1994).

The severity of the HIV epidemic in Africa has been attributed to several interrelated underlying factors including gender, poverty, poor health service and lack of sexuality education (Whiteside et al., 2003), but the mechanism for HIV infection is sexual behaviour, which is embedded in gender and social relationships and meanings at the local level. Fundamental gender inequalities fuel the epidemic, particularly in sub-Saharan Africa where women and girls now make up over 60 percent of those living with HIV and 76 percent of those are in the age 15-24 years old (ICN, 2006). In sub-Saharan Africa, HIV infections rates among young women are more than five times

higher than in young men (Blum & Nelson-Mmari, 2004). In a study conducted in South Africa, it was found that one in five pregnant adolescents were infected with HIV (Jewkes et al., 2001), and in Swaziland, this figure is 29 percent among 15-19 year old antenatal care attendants (SNAP, 2005). Poor reproductive health is directly related to gender-based inequalities in the distribution of social power and resources.

Research within the field of gender, health and power relationship is expanding in the high income countries but has been very limited in low income countries where women's and girl's health issues have until recently been restricted to conditions related to reproductive functions (Cook et al., 2003). There is therefore, a need to make deeper investigations in gender and adolescence using both qualitative and quantitative research methods.

Quality of care

Quality of care is one important aspect of this thesis. Quality of care as defined by Donabedian (1988) is care, which should lead to the maximum possible wellbeing of the person seeking care. Providing health care, which assures the maximum possible wellbeing, depends on the health care system, the health care providers, the families and the community members. Any modification in roles of each of these can impact on quality of care and promote or impede the health of adolescents. Donabedian's model introduces three dimensions for evaluating quality care. The first dimension is *structure*, which is evaluating the setting and instruments used to provide care, for example, facilities, equipment, and characteristic of the administrative organisation and the qualifications of the care providers. The second dimension, the *process*, evaluates activities as they relate to standards and expectations of health providers in the management of client care. The third is the *outcome*, indicating the net change that occurs as a result of health care. The three dimensions may be used separately to evaluate a part of care. Donabedian further states that the process of health care has two other major components, which are *technical interventions* and *interpersonal relations* between practitioner and client. Both are important and can be evaluated in provision of quality of care. Donabedian notes that quality, whether "high" or "low" is a dimension that all programs have (Donabedian, 1988).

The scientific technical quality includes appropriateness of services and the skill with which appropriate care is performed, that is, "are the best methods used and in appropriate manner" (Ovretveit, 1992; Faxelid, 1997). The quality of the interaction between client and health care provider also includes elements such as empathy, respect, communication and concern (Blumenthal, 1996).

Maternity care

The health care system in Swaziland comprises both biomedical and traditional health care (Lech & Mngadi, 2005). Traditionally and historically, women have been attended and supported by other women during childbearing, but in recent decades in hospitals social support during labour in hospitals worldwide has become the exception rather

than the routine (Hodnett et al., 2006). This old tradition also changed in Swaziland with the introduction of Western-influenced health care.

The Swazi woman, like women in neighbouring countries, starts childbearing early, and will give birth to an average of 4.6 children during her reproductive period. Antenatal care (ANC) is part of the primary care services offered at outpatient departments and at health centres, public health units and hospitals. About 93 percent of pregnant women attend ANC services at least once during pregnancy and two-thirds of expectant mothers attend ANC five or more times. More than two-thirds of the expectant mothers attend the ANC late in the second and third trimester (MOHSW, 2002). There are approximately 45,000 births in Swaziland annually and 26 percent of the women deliver at home assisted by unskilled personnel and 74 percent deliver in health facilities, assisted by skilled attendants, mainly trained nurse/midwives. Despite the high attendance rate the quality is said to be unsatisfactory (MOHSW, 2002).

The provision of essential care to childbearing and labouring women by skilled attendants is considered to be the major intervention to reduce the high maternal mortality and morbidity rates in the world (WHO, 2000). A skilled attendant refers to a person with midwifery skills who have been trained to proficiency in the skills necessary to provide competent care during pregnancy and childbirth. The term skilled attendant refers to doctors, midwives and nurses, but globally the midwife is the attendant who most commonly assists the women during normal childbirth (FCI, 2005). The International Confederation of Midwives (ICM) and International Federation of Gynaecologist and Obstetricians (FIGO) have jointly defined the professional responsibility of a registered midwife. From history we have learnt that the introduction of “skilled attendants” and records keeping were important interventions for improvement of maternal and perinatal health outcomes. Although most pregnancies are uneventful it is estimated that 15 percent of the women develop complications requiring skilled attention (Högberg et al., 1986).

Of all life events, the childbirth experience is mostly described as a significant event of powerful physiological and psychological influences in a woman’s life. Birth is about women’s lives and women’s bodies and childbearing women are often eager to share and articulate their birth experiences. This fact has been found independently of socio-cultural belongings (Lugina, 2001; Maimbolwa., 2004). Over the past decades the interest to listen to mothers’ narratives has also increased. Some studies have shed light on the impact of the health care providers practices (Olsson & Jansson, 2001) and how the immediate care a woman receives in connection with traumatic birth experiences such as stillbirth can affect the woman's emotional status for a long period after delivery (Rådestad et al., 1998), or the midwives experiences of assisting women with obstetrics risks or complication (Berg & Dahlberg, 2001). Callister (2004) used audiotaped birth narratives from culturally diverse childbearing women with the aim to identify the benefits of sharing birth stories that crossed cultural groups. The qualitative data analysis included finding the fundamental meanings of the transcripts, identification of themes, explications of data related to these themes and meaningful passages that described the lived experience of childbirth. In summary the opportunities for

integration of a major event to a mother's life, sharing a significant life event and the opportunity to discuss fear, concerns, missing pieces, disappointment and the opportunity to connect with other women were some of the major findings and the author conclude that providing women with the opportunity to share their birth stories is important knowledge for the development of midwifery intervention and quality of care.

Community and social support

In this study support refers to the comfort, caring, or help a person receives from other people or groups in the community (Oakley, 1992). There are various types of social support and these are, emotional, which affirm that one is accepted and valued as a person; informational or appraisal, which provides advice to enable one to cope with a stressful event; instrumental or tangible support, which provides assistance with money, resources or services and belongingness to a social network or social companionship (Oakley, 1992). The integration within the social network and the ability to draw resources from this network can maintain health of the adolescent mothers and their babies and even have a positive impact on birth outcomes (Klaus et al., 1986). In the event of illness, it can facilitate recovery of the adolescents. The support may influence health outcomes directly by providing access to information or by enhancing motivation to engage in positive or negative behaviours. It may also influence outcomes indirectly, that is, support from others may encourage the individual to comply with treatment recommendations, to maintain health promoting behaviours such as exercise, proper nutrition, and contraceptive use or to provide other support such as transport to a medical appointment (Oakley, 1992).

In 1980s direct evidence came from several parts of the world, of the importance of companionship during childbirth. "Doula" is a Greek name referring to a woman who helps other women in labour and provides continuous physical, informational and emotional support to the mother before, during and after labour (Sosa et al., 1980; Klaus et al., 1993). "Doulas", who are lay women not earlier acquainted with the mothers were assigned to give the mother a continuous support like holding her hands, talking to her, rub her back and encourage her to push when there was a strong labour contraction. Studies have shown that women experienced considerable shorter labour and fewer obstetric complications when a doula provided her with continuous support (Klaus et al.1986; Madi et al., 1999; Maimbolwa, 2004). In a randomised study conducted at Coronation Hospital in Johannesburg, South Africa, a supportive companion who was unknown to the labouring woman was requested to stay with the woman during labour and give her praise, reassurance and comfort. The study showed a striking maternal satisfaction, a reduced experience of labour pain, better coping with labour and greater breastfeeding success (Hofmeyr et al., 1991).

The maternity ward environment may be strange and lonely for the labouring women and has many regulations and elements, which can increase the stress of labour. This may make the woman refrain from delivering in a health care facility (Maimbolwa, 2004). While in high-income countries, efforts to involve fathers have resulted in much improvement in the maternity care it has in general been difficult to involve fathers in

low-income countries. However, high the quality may be, unless adolescents have full access to and support from health care providers and are not ashamed of using the health service, pregnancy outcome will remain poor.

Adolescents' sexual and reproductive health rights

The term “reproductive rights” implies rights that apply once an individual reaches reproductive age. This is not entirely the case because the universality of these rights has to be interpreted carefully as they also apply to adolescents. Adolescents are not always granted exactly the same rights as adults. Adolescents are more vulnerable than adults, therefore, both parents and society need to pay attention to custody, care and legal framework to protect them. Adolescent rights are part of the human rights framework and adolescents have the right to control their fertility (Sundby, 2006).

Adolescents have the right to grow safely into adulthood and to gradually become sexual human beings according to their maturity. They have the right to necessary knowledge and means to make informed choices around their own sexuality regardless of the cultural values, religions commitments and traditional norms of society that may condemn these behaviours (Dickens & Cook, 2005). They should have the right to make their own decisions about matters related to reproduction and sexuality. They should be allowed to enjoy sex when it is safe and they are sufficiently mature. They should have the right to avoid sexual coercion, incest, rape and trafficking. They should access means that can increase sexual safety, to choose to marry or not to marry and to plan a family in the future (UNFPA, 1994). Finally, adolescents should have the right to information, about sexuality, contraceptives, STIs/AIDS and about one's rights.

Adolescents should have a right to have health care that is confidential, affordable, good quality, accessible, relevant and given with due respect. They should also be given the right to be involved in planning, implementation and evaluation of programmes. This is clearly spelt out in the Programme of Action from the ICDP in Cairo (UNFPA, 1994) and these elements of the programme should be continuously implemented more especially by health care providers. In Swaziland as the family situation has been described earlier on, one has to be aware that the rights of the adolescents are not fully protected and these rights are sometimes violated.

OVERALL AIM

The overall aim of this thesis was to explore quality of maternity care and community support to newly delivered mothers in Swaziland and to explore views and needs related to adolescent sexuality and reproductive health services in order to provide information for improvement of the sexual reproductive health services for adolescents in Swaziland.

Specific aims

- To explore maternity care practices for adolescent mothers during their stay in the maternity unit, from admission to the labour ward until discharge from the postnatal ward (I).
- To study the support rendered to adolescent mothers and their newborns by families, partners, communities and health professionals (II).
- To explore adolescents' views on decision making regarding risky sexual behaviour (III).
- To explore adolescent boys' views on adolescent pregnancy and parenthood in Swaziland (IV).
- To explore the provision of adolescent sexual and reproductive health care services by health care providers in Swaziland (V).

MATERIAL

The material consists of adolescents giving birth at the Mbabane Government Hospital (I) and adolescent newly delivered mothers (II), adolescent boys and girls (III, IV) and health care providers (V).

Study setting and sample selection

The studies presented in this thesis were carried out in each of the four regions in Swaziland. The first study (I) was conducted 1998 at the maternity ward at Mbabane Government Hospital in the Hhohho region. The Mbabane Government Hospital is a national referral hospital and also a University Teaching Hospital where student nurses and midwives get their professional clinical training. During the year 1998, the total number of antenatal care (ANC) attendants were 12,283 and of those 3,683 (30%) were adolescents. The labour ward had a total number of 4,230 deliveries of those 1,276 (30%) were adolescent deliveries (MGH, 1998).

Eligible for study (I) were healthy pregnant adolescents fulfilling the inclusion criteria as assessed by the attending midwife or physician with an uneventful term pregnancy, spontaneous onset of labour, foetus in vertex presentation and adolescents' informed consent to participate in the study. In total 33 adolescents were consecutively recruited to the study between 07.00 hrs until 17.00 hrs on specific study days during April – June 1998.

The second study (II) was a follow-up study of the same adolescent mothers who had given birth at the Mbabane Government Hospital maternity ward. Thirty-one mothers were visited in their homes seven days after delivery. Two mothers were lost to follow up as they had moved from their given addresses. All the other mothers lived around the Mbabane and Manzini areas. The total time spent in each of the mothers' homes was approximately one hour.

The third study (III) was conducted in 2002 in each of all the four regions of Swaziland: Hhohho, Manzini, Lubombo and Shiselweni regions (see map). Adolescent 13 – 19 years old, participated in 24 FGDs. Each FGD consisted of 6-12 participants. Both boys and girls were recruited from workshops on adolescent and reproductive health conducted in different regions of Swaziland. Included were adolescents who were unknown to each other, in or out of schools and representing both rural and urban areas. In all there were about 220 participants, with equal number of boys and girls.

Study four (IV) was conducted, in October, 2003 at Mashobeni, a rural and remote area in the Shiselweni region, approximately 150 km outside the city of Mbabane (CSO, 1997). Mashobeni area was selected as it has high rates of adolescent pregnancies and single parenthood as well as a high prevalence of STIs, HIV infections and AIDS. At Mashobeni, there is one health clinic with a "Youth Friendly Corner" established in 2002, with specially trained nurses and peer counsellors. Their tasks are to provide sexual and reproductive health (SRH) information, education and counselling (IEC) to promote safer sexual behaviour to the young people living in the area. It was the first

“Youth Friendly Corner” that was initiated by Swaziland Government and UNFPA as a pilot project. Recruited to the six FGDs, were 52 adolescent boys, 10-19 years of age, who all lived in Mashobeni, Swaziland.

Study (V) was conducted between January and March 2005. All health personnel working in health facilities with adolescent sexual and reproductive health (ASRH) services in the Hhohho and Manzini regions were eligible to participate in the study. In total there were eleven health care facilities that provided SRH services to adolescents in the study sites, nine in Mbabane (two mission health care facilities, two non governmental organizations (NGOs) clinics and five government health care facilities) and two in Manzini (one mission health care facility and one public health care facility). In total 56 health care staff participated.

METHODS

Qualitative and quantitative methods

Qualitative as well as quantitative research methodologies have their own merits and complement each other well in public health investigations of the sexual and reproductive health of adolescents. Graneheim & Lundman (2004) states that quantitative research “refers to counts and measures of things”. Quantitative research, is based on the gathering of facts, stresses the importance of devising valid and reliable measurement procedures, and adopts the principles of scientific method by emphasising the importance of the generalisation and replication of results (van Teijlingen & Forrest, 2004). Quantitative research typically starts with the generation of a hypothesis based on existing theory. The hypothesis is thereafter tested against reality i.e. it is verified or rejected based on data collected for that purpose and this is referred to as deductive reasoning (Dahlgren et al., 2004). Quantitative data collection methods such as observations, records reviews, interviews and questionnaires were viewed as appropriate to determine the quality of maternity care for adolescent mothers (I), the family and community support for adolescent mothers and the provision of ASRH care services by health care providers in Swaziland (V). Quantitative methods were used because they offered a fairly simple way of collecting the data and of reporting the results.

Qualitative research adopts a naturalistic approach, which aims to reflect the real world, social reality/context in perception of the environment (Gray & Denstein, 1998). Qualitative research takes the point of departure of the informants whereas quantitative research takes as a point of departure in the ideas of the researchers. Qualitative research is viewed as an act of interpretation and has reality as mirrored in data as the starting point. Based on data collected new concepts, hypothesis or even theories are discovered and this is referred to as inductive reasoning (Morse & Field, 1996; Dahlgren et al., 2004). Qualitative research approaches enable probing into attitudes, behaviours and experiences that are personal and sensitive such as in studies of ASRH (WHO, 2003b). Qualitative research methods, such as FGDs (Barbour & Kitzinger, 1999), were chosen since they are ideal for exploring adolescents’ experiences, opinions, wishes and concerns in relation to the topic that was discussed. The open-ended nature of FGDs aided in exploring sensitive issues like sex behaviour through an interaction of participants as they engaged in self-reflection and debate. The kind of collective activity enabled probing of attitudes, behaviours and experiences that were personal and sensitive. Thus the researchers could learn from the adolescents themselves why they engaged in risky sexual behaviour (III) and their views on adolescent pregnancy and parenthood (IV). During the FGDs, all participants seemed to feel at ease and discussed lively the topics that were introduced by the moderator. One reason could be that the group had some previous experience in participating in peer discussions and that I, as the moderator could benefit from my experience as a professional midwife, which enabled me to lead the discussions without any problems.

The major limitation and a possible disadvantage of FGDs as suggested by Morrison & Peoples (1999), is that the findings from qualitative methods, cannot usually be generalized to a larger population. The strong dependence on a skilled moderator is another limitation. Because interaction between the group members and the moderator is essential, a moderator who is skilled and experienced in interpersonal and nonverbal communication techniques and who understands group behaviour is vital for the group's success. Another limitation of FGDs is the potential of group dynamic bias. Although most participants were cooperative and expressive, the moderator had to be prepared to cope with those who were unusually verbose, passive or in competition for group leadership by trying to control the flow of conversation (Sevier, 1989).

The data collection methods included observations, record reviews, semi-structured interviews, focus group discussions (FGDs) and questionnaires. The first author was the main data collector (principal investigator) in all the studies with well-trained and experienced assistants during the FGDs. A compilation of the five studies is presented in Table 3.

Table 3. Study sites, participants, population size and data collection methods.

Paper	Study site	Participants and sample size	Data collection methods
I	Mbabane Government Maternity ward	33 adolescents giving birth	Observations Records review Semi-structured interviews
II	Manzini and Mbabane areas	31 adolescent mothers	Semi-structured interviews Observations Home visits
III	Manzini Hhohho Lubombo Shiselweni regions	24 FGDs (6 in each region), with 6–12 participants in each group, boys and girls 13–19 years	Focus group discussions Field notes
IV	Mashobeni area in the Shiselweni region	6 FGDs, with 6-12 participants in each group, boys 10–19 years	Focus group discussions Field notes
V	Manzini and Hhohho regions	56 health care providers (physicians, midwives, nurses, nursing assistants)	Questionnaires

Observations (I, II)

Observation is a technique that involves systematically watching and recording behaviour and other characteristics. The observer does not make any judgement but just observes (Patton, 1990). Non-participant observations were used to collect data about the routine care of normal labour, delivery, immediate care of the newborn and postpartum care. The observations were specifically directed towards midwifery care routine activities which were carried out in the admission, delivery and postnatal wards. During the observation period the principal investigator remained in the maternity without interfering with the care and observations followed a pre-designed protocol (I). The observation method was used to gather descriptions of midwifery events and practices and enabled the researcher to assess the midwifery practices that were used and the care provided during the study period. The observations also made it possible to observe the care and social support that was offered to the adolescent mothers together with their babies both at the maternity ward during postpartum period (I), and at home by their partners, families and community members (II). Relevant observations done were documented in field notes.

Records review (I, II)

The ANC cards were reviewed to get information about socio-demographic data of the pregnant adolescents; gestational age at the first visit; number of ANC visits and any problems that were identified during the ANC period before admission into the labour ward. Maternity records were retrieved and reviewed in the maternity ward, to assess if all the information that was supposed to be recorded during admission to labour ward, during delivery and immediately after delivery was done or not.

The variables that were checked were recordings of the mother's vital signs e.g. blood pressure, temperature and pulse; fluids and nutrition; the foetal signs e.g. foetal heart rate, foetal kicks and foetal movements; the use and recording of the partograph; any prescriptions such as analgesia; oxytocin stimulation of labour done or not; episiotomy done or not; Apgar score or foetal condition as a whole recorded or not; vitamin K injection and tetracycline eye ointment given or not; pain relief given to the adolescent mother and any complicated conditions or other interventions that were recorded. During the home visits, the mothers' records were reviewed to check if the date to go to the postpartum clinic after 6 weeks was recorded or not, if the advice that the mother was given on discharge was recorded, to check if the mother was given a vaccination card, if the BCG vaccine was given and recorded or not.

Semi-structured Interviews (I, II)

Semi-structured interviews are conducted on the basis of a loose structure consisting of open-ended questions that define the area to be explored. A semi-structured interview guide was used to get information from 33 adolescent mothers in the postpartum ward about the care and support they and their newborns received from health care staff (I) and from 31 adolescent mothers at their homes seven days after delivery (II). A semi-structured interview is like a conversation and therefore it is important to build rapport between the respondent and the interviewer for mutual understanding (Dahlgren et al., 2004). The interview guide contained an outline on socio-demographic data of the adolescent mother and of topics to be covered with suggested questions about the care and support the adolescent mothers and their babies received from health care providers, partners, families and community members. The interviews enabled the researcher to gain additional information that might have been missed during the observations. Prior to the main studies, pilot studies were carried out with five pregnant adolescents (I) and five adolescent mothers (II) to test the feasibility of the studies and the interview guide. Few amendments were made. All individual interviews were conducted in confidence. After each interview, the participants were encouraged to ask questions. This was an advantage to the participants since they managed to get clarifications from issues they were not sure of.

Home visits (II)

Prior to the discharge from the maternity ward an agreement was made with the adolescent mothers about the aim of the home visit, date of home visit and directions to the mothers homes. Home visits were carried out seven days after delivery with the aim to explore the support the adolescents and their infants had got from health care institutions, families, partners and communities. During the home visits the mothers were interviewed about experience of pregnancy, views of care, support and opinion about quality of maternity care. Although not mentioned in the paper, as a midwife, an assessment of the baby was made to see if the cord was clean and if it had fallen. The breast feeding pattern was discussed and appropriate counselling given. The general condition of both the mother and the baby were assessed.

Questionnaire (V)

Questionnaires are commonly used research techniques in health-systems research (Varkevisser et al., 1991). A semi-structured questionnaire consisting of both closed and open-ended questions was used to collect data from 56 health care providers in 11 health facilities (V). The questions included socio-economic variables of the health care providers giving ASRH services in Swaziland. The questionnaire was developed by the principal investigator. The study was preceded by a pilot study with seven health care providers working in RH facilities to test the protocols and the feasibility of the study. As a result of this, few amendments to the questionnaires were made. The responses from the open-ended questions were analysed by first grouping the answers according

to content and then categorising them into themes. The answers to the closed questions were summarised by frequencies.

Focus group discussions (III, IV)

Focus group discussions (FGDs) are ideal for exploring people's opinion, concerns, wishes and experiences related to specific issues. The method enables researchers to examine people's different perspectives as they operate. Focus group discussions are based on interaction between the participants and may provide varied and rich information of the topic being studied (Barbour & Kritzing, 1999). Focus group discussions succeed in producing data through interaction and discourse in a group setting that one-to-one interview may fail to generate. The advantage of this method is that the group interaction can be utilised to explore people's own experiences and knowledge and how their views are constructed or expressed in a certain context (Dahlgren et al., 2004).

A FGD guide containing questions for study III and IV was used during the discussions. The research team consisted of a moderator and two facilitators. The moderator was facilitating the discussions, one facilitator was responsible for tape recording and the other took notes of the discussions. The discussions were held in different classrooms, tape recorded and each lasted for about one and a half hours. The author of this thesis facilitated the FGDs. In the FGDs there was more interaction between the participants. The FGDs were conducted in Siswati and translated into English both official languages of Swaziland. The author and the moderator are fluent in both English and SiSwati. Focus group discussions continue until saturation occurs and this means that little or no new data is expected to be found in the consecutive FGDs.

DATA ANALYSIS

Quantitative data analysis

The data was organised, coded and analysed under the supervision of a statistician who checked for consistency and errors. The data analysis of the quantitative data in studies I and II was processed and analysed using EPI-Info version 4, 1994 statistical software (Dean et al., 1994) and the Statistical Package for Social Sciences version 10 (SPSS, 2002) was used for data analysis in paper V. Descriptive statistics (mean and proportions) was computed. There was no comparison between groups in any of the papers because of the small sample sizes and it was not possible to check for the statistical significance.

Qualitative data analysis

The qualitative data from the FGDs and semi-structured interviews was analysed using content analysis which is a research technique, described as being concerned with the meaning in each passage of the text (Downe-Wambold, 1992). Content analysis is a process of identifying, coding and categorising the content of the data into patterns/themes (Polit & Beck, 2004). Content analysis can be considered at two levels at the coding stage when words or phrases are identified (Holsti, 1969). The first level is called manifest content, which considers the visible and obvious components of the text. The second level is called the latent content, which interprets the underlying meanings of the text. In studies III and IV the analysis was kept at the level of manifest content rather than at the latent content.

Data from the audio-taped discussions were transcribed verbatim and the transcripts were reviewed thoroughly and translated from Siswati into English by the author (MPT). Guided by the description by Burnard (1991) the transcripts from the FGDs were read and assessed in relation to the research questions before the coding to get a sense of the whole, to discover essential characteristics within the text and the areas covered. Words, phrases or sentences (unit of analysis) that were relevant to the aim of the study and that could be seen as aspects of boys' views on adolescent pregnancy and childbirth were identified. The units of analysis were then categorized into sub-themes and themes. The themes were cross-checked by the co-authors. Quotations of the FGDs participants' voices were used to illustrate the participants' way of thinking and interacting in study IV. Observations of the interactions within the group, which were recorded during the group interactions in the FGDs, were taken into account during the review by checking if they added any value to the data. The process of analyzing the data continued until all ideas had been absorbed (Graneheim & Lundman, 2004).

ETHICAL ISSUES

Ethical issues need particular care when conducting research with adolescents on sensitive issues. These include the importance of confidentiality, respect for people's right to refuse participation, maintenance of privacy during discussions and non-disclosure of information to other family members or people outside the group. *Informed consent* means that participants have adequate information about the research, are capable of comprehending the information, and have the power of free choice, enabling them to voluntarily consent to participate in the study or not (Polit & Beck, 2004).

Ethical clearance for the studies was sought from the Swaziland Ministry of Health and Social Welfare Research and Ethics and from the Karolinska Institutet Research Ethics committees. Written consent was received from the administrators at the chosen health facilities (I, V). The participants were informed about the aims of the studies. It was stressed to participants that they were free to decline participation in the study and to refrain from answering any particular questions. They were also informed that they could terminate their participation whenever they felt it was in their best interest to do so (I, II, III, IV, and V). The adolescents, who participated in study three, were recruited from workshops on adolescent and reproductive health which were arranged and conducted by the MOHSW. Arrangements were made and approval by the MOHSW that adolescents in these workshops be requested to participate in the FGDs. Adolescents who participated in study four and who were less than 18 years had a written consent from their parents to participate in the study. All FGDs were conducted in confidence. Anonymity was guaranteed as no names have been quoted in any of the published and unpublished materials.

RESULTS

The findings of the five studies are summarised according to the research questions: How is quality of maternity care organised for adolescent mothers? What support do adolescent mothers get at home, by families, communities and health care professionals? What are views of adolescents on decision-making regarding risky sexual behaviour? What are adolescent boys' views on pregnancy and parenthood among adolescents? What sexual and reproductive health services are health care providers offering adolescents?

Paper I

How was quality of maternity care organised for adolescent mothers?

The age of the 33 pregnant adolescent girls who participated in the study ranged from 15 to 19 years and only one was married. Twelve had attained primary and 21 secondary education. Twenty-seven were primipara and six had their second baby.

- On admission to the maternity ward 26 (79%) of the pregnant adolescents perceived that they were met in a welcoming manner. Two thirds were informed about the results of the admission assessment however; the findings from the physical examination were poorly explained to them. Verbal communication and interaction between the midwife and the adolescent were minimal, and none of the adolescents were encouraged to bring a social support person with them during labour. Seven (21%) pregnant adolescents said that the midwives were impersonal to them i.e. they did not greet them, did not orient them and did not seem to care about them.
- Most of the midwives did not check the weight, height, pallor, oedema, urine of the adolescent women even though the equipment for performing such procedures was available. Twelve (36%) had normal deliveries, eleven (35%) had an episiotomy, one was delivered by vacuum extraction and nine (27%) had a Caesarean section.
- Half of the vaginally delivered newborns were placed on their mothers' abdomen immediately after birth while the rest were placed next to the mother on the delivery bed. Vital clinical data were checked and recorded immediately after delivery for all the deliveries.
- Seventeen (71%) mothers started breast-feeding their babies within one hour after birth and seven (29%) started after two hours. Those who had delivered by Caesarean section started breastfeeding between 3 to 13 hrs.
- Twenty-nine (88%) adolescent mothers were instructed to return for postnatal check-up six weeks after delivery with their infants while four (12%) were not given this information.
- Before discharge all mothers were given detailed advice on general hygiene and how to care for the newborn and to breast-feed on demand.

Paper II

What support did adolescent mothers get at home, by families, communities and health professionals?

There were 31 adolescent mothers who were visited and interviewed at home after delivery. The adolescents were aware that missing a menstrual period was indicative of pregnancy. Most of them were aware of different contraceptive methods but had not used any and they had got information about contraceptives from their peers. The majority did not want the pregnancy because they still wanted to continue with their education and about half had to drop-out-of school. About two third told that the first person they informed about the pregnancy was their partners and none told their parents for fear of being scolded, beaten or even chased away from home.

- Four (13%) reported that midwives had scolded them.
- Twenty-four (77%) mothers and their babies had been abandoned by their partners after the birth of the baby.
- Fifteen (48%) had support from their parents,
- Fourteen (45%) had support from other relatives.
- Support from community and health professionals was generally poor.
- Parents and relatives reacted very negatively when they heard about the pregnancy.
- Communication between the adolescents and their parents and/ community in relation to SRH issues was lacking.
- Peers were the primary source of information about contraceptives, sexuality and reproduction.
- During home visits, the adolescent mothers reported that they were not informed by the health staff which date they should return for a postnatal check-up, for family planning and immunisation and no recording was made in the record.
- Adolescent mothers reported that they appreciated the home visits done by the author (PTM) and expressed need for more postpartum visits by midwives.

Paper III

What are the views of adolescents on decision-making regarding risky sexual behaviour?

About 220 girls and boys aged 13-19 years old, in-school and out-of-school, from urban and rural areas participated in 24 FGDs.

- On average, participants thought that the ideal age for starting sexual activity was between 16 and 17 years for girls and boys respectively. Most participants reported that some young people begin to have sex as early as 11 years and the most commonly stated actual age for female sexual debut was 11-13 years compared to 14-15 years for males.
- The majority of the participants believed that condom use implies a lack of trust in a partner and that condoms should be used when people have extra marital sex e.g. with prostitutes and casual partners.
- The participants claimed that condom use may suggest that the partner is infected with an STI and most adolescents perceived that sexual intercourse with condoms was un-pleasurable and artificial. The element of trust in the relationship seemed to influence the use of a condom. Generally, there were negative attitudes towards the use of condoms.
- Peers influenced the adolescents to engage in sexual activity and the majority agreed that sex with multiple partners was common among them.

Paper IV

What are the adolescent boys' views on pregnancy and parenthood among adolescents?

Adolescent boys aged 10-19 years from a rural area participated in six FGDs.

Boys wanted to test what it meant to have sex and they used to deny responsibility of if a girl fell pregnant but they did not want to impregnate the girls. They stated that they engaged in sex for enjoyment, curiosity and to pass away time.

- Boys felt embarrassed, shameful and their friends did not appreciate them when they had impregnated a girl.
- Boys feared that they would be punished by parents and possibly chased away from home while they were still at school.
- Boys lacked trust in their girlfriends whom they accused of having multiple partners for economic gains, which made them deny responsibility for the pregnancy.
- Boys viewed abstinence as an opportunity to avoid risks of unplanned pregnancy and STIs including HIV/AIDS. However, it was mainly the girls who were expected to abstain.
- Boys were aware that adolescent mothers and their babies were at risk for health and social problems and that adolescent mothers faced added family responsibilities and rarely married. Adolescent parenthood was said to have a direct effect on grandmothers in the families' i.e. early entry into grand-motherhood and added responsibilities. The grand mothers often had to provide monetary resources, time and emotional support to both their daughters and grandchildren.
- Boys said that the majority of young people who were out-of-school were unmarried; they were often heads of households with responsibilities for their siblings as their parents had died of AIDS.
- Boys needed some adult to talk to regarding issues related to growing up and about sexuality and reproduction.
- Boys asked for recreational activities in the communities to keep them occupied and they requested better education and communication about ASRH from parents, other adults and health care providers. Finally, they requested the Government to provide jobs for them.

Paper V

What sexual and reproductive health services are health care providers offering adolescents?

Fifty-six health care providers were available for this study. The majority of the respondents were women, the mean age was 36 years and they had a mean number of six years in the profession.

- Fifty-four (96%) respondents answered that both girls and boys used to come to the facilities for SRH services. The most frequent health services offered to non-pregnant adolescent girls were contraceptive services, STI/HIV pre- and post-counselling and testing and treatment of STIs.
- Thirty (54%) provided routine antenatal care and checked weight, blood pressure, made syphilis test, gave immunizations, and prescribed iron tablets, to pregnant adolescent girls. Three (5%) offered pregnant adolescents voluntary pre- and post-counselling and testing for HIV. The main advice given to adolescent mothers was related to post partum care for the mothers and their babies, according to 32 (57%) of the respondents. Further, 12 (21%) gave advice about contraceptives and three (5%) advised the adolescent mothers on immunization of the babies.
- Twenty (36 %) advised boys to use condoms during sexual intercourse and nine (16%) said that they gave boys advice on STI/HIV pre- and post- counselling and testing. One person discussed masturbation with boys. The majority of the health care staff encountered problems related to service provision and the main problem was regarding contraceptive service.
- Twenty-seven (48%) would offer emergency contraceptives after an adolescent had been raped but only if the girl was brought by the police, as a reported police case.
- Seventeen (30%) would not agree to assist an adolescent girl who requested for an induced abortion. However, 44 (79%) respondents wanted to be trained in post-abortion care and eight (14%) on how to perform abortions.
- Thirty-two (57%) respondents (all nurses/midwives and nursing assistants) had never received any special training in relation to ASRH needs while 20 (36%) had been trained on emergency contraceptives. All respondents expressed the need for more updated knowledge about ASRH care services.
- Twenty-six (46%) wanted the Swaziland government to be more involved in establishing, promoting and supporting youth-friendly services as a means to improving adolescent health. Training of health care providers in comprehensive ASRH was also mentioned as a way to improve the services. Additional suggestions were revival of strategies rooted in Swazi culture and formation of youth clubs in the communities.

DISCUSSION

The studies in this thesis are concerned with the needs, views and services related to adolescent sexuality and reproductive health in Swaziland with special reference to quality of maternity care (I), social support (II), views on decision-making regarding risky sexual behaviour (III), views on adolescent pregnancy and parenthood (IV), and provision of ASRH care services by health care providers (V).

Methodological considerations

Observations and interpretation are demanding tasks requiring attention, sensitivity, perception and conception. A problem with observations is that, for example, during the observation process, the health personnel that are being observed might act differently than when they are not being observed. During the observation period, to try to avoid some of the observer bias, the principal researcher remained in the admission, labour, delivery and postpartum rooms without interfering with the activities and care rendered to the adolescent women by the health personnel, though it was not easy. For example, at the time when appropriate measures were not taken, the principal researcher remained silent and did not intervene. When the health care provider was assessing the maternal and foetal conditions in the labour ward, some health care providers could not give the pregnant adolescent feedback about the findings of the assessment. Feedback to the adolescent is very important at this point because she is very anxious to know about her own condition and that of her unborn baby.

Validity, trustworthiness, and reliability

Validity refers to the degree to which a procedure really describes what it proposes to measure (Neundorf, 2002). For qualitative methods, the use of concepts for describing validity and trustworthiness differs from the quantitative research traditions (Graneheim & Lundman, 2004). Research findings should be as trustworthy as possible, and every research study must be evaluated in relation to the procedures used to generate the findings (Dahlgren et al., 2004).

In order to avoid errors due to information bias all the data were collected by the first author (PTM). Reliability, in quantitative research, means consistency of measurements. If reliability is high, repeated measurements arrive at the same results. Consequently, consistency in qualitative research is referred to as dependability.

The observations in study I were made by the author who was well known by the health care providers at the maternity ward. This might have created information bias due to the respondents' desire to please the observer and do what they would not normally do.

During the interviews with the adolescent mothers in studies I and II, the focus was on how well the researcher succeeded in presenting the stories of the adolescents and on the veracity of the information given by the participants. A semi-structured interview is always a dialogue between the interviewee and the interviewer, both of whom influence

the conversation's topic and direction. As a researcher, I was interested in how the adolescents explained and gave meaning to their situations and I was also interested in the relationship between the health care providers, families, and community regarding care and support. These interests guided the flow of the questions from the researcher by being constantly conscious of the direction the participants chose and by not missing emerging issues. The responses that were given by the adolescent mothers during the interviews and the analysis of the responses gave a clear account of how the adolescent mothers perceived the care and support from the health facility, homes and communities.

Adolescent pregnancy, quality of maternity care and social support for adolescent mothers (I, II)

Adolescent pregnancy and motherhood are complex medical and social issues. Studies indicate that pregnancy and delivery during adolescence carry major risk factors for both mothers and infants, such as anaemia, infections, malaria, pregnancy-induced hypertension, pre-eclampsia and cephalo-pelvic disproportions (CPD). There is a higher incidence of caesarean sections, premature labour and poor infant health and increased maternal mortality (Bacci et al., 1993; Granja et al., 2001). The adolescent girls included in the study (I, II), demonstrated both obstetric and social disadvantages. A greater proportion had caesarean sections because of prolonged labour and a CPD as a sign of biological immaturity of the pelvis.

In societies where gender discrimination is common adolescent girls tend to be more undernourished than boys, which also contributed to a higher risk of CPD and anaemia. Further, girls' lower status and lack of skills to negotiate safe sex exposed them to risky sexual behaviour and to risks for STI/HIV transmission and unplanned pregnancies (Wood & Jewkes, 2006). Poor adolescents have fewer opportunities and reasons to avoid or delay childbearing (Furstenberg, 1998). The study (II) also demonstrated that most of the adolescent mothers were abandoned by and the fathers of their newborns. Recent research reveals that the society's expectation, that young people should prove their fertility potential is still strong, and this expectation influences the proportion of adolescent pregnancies. Nevertheless, study (II) found that the girls are abandoned by their partners without any societal or financial pressure on them.

Maternity care

There were both positive and negative aspects observed in the quality of maternity care and social support for adolescent mothers (I, II). Positive aspects were that about two-thirds of the pregnant adolescents were informed about the results of the admission assessments done by the midwives. However, the information to the pregnant adolescents was not clearly explained. It was also observed that most midwives did not check the vital clinical data such as weight, height, pallor, oedema, and urine of the women even though the equipment for performing such procedures was available. This suggests negligence on the part of the midwives because they can miss abnormalities such as glucose in urine, hypertension, and low haemoglobin which are common among

adolescents and might require urgent treatment. Furthermore, the maternity care routines and support were generally inadequate. Some researchers have described similar situations and have suggested that every pregnant woman should have her own birth plan. A study in Uganda by Mulogo et al. (2006) on “birth plans and health facility based delivery”, suggested that birth plans are an important tool in improving the number of deliveries in health facilities. This is usually considered necessary to reduce maternal mortality and to reduce uncertainty, and manage fear about pregnancy. This will make the adolescent feel sufficiently safe and confident to understand the labour and delivery process and to adjust during the postpartum period.

About one-quarter of the adolescents said that the midwives were impersonal to them for example they did not greet them, did not orient them and did not seem to care about them. Communication is a very important tool. Communication between the health care providers and the adolescents could possibly have a stronger impact than midwifery and obstetric technology. Acquisition of information and communication in ASRH issues is attracting an increasing amount of attention within health care (Fonn & Philpott, 1995). Some adolescents in study (I) even reported that midwives scolded them for falling pregnant and not using contraceptives and for screaming during labour contractions.

The maternity ward is an unfamiliar environment for the adolescent, and to be left alone in such an environment is stressful. In an environment like this, the adolescent needs support in order to feel that she is in control of herself and accepted whatever her reactions and behaviour may be. There is evidence that the presence of a companion in labour favours good progress. A role of such a support person could be to enhance emotional and practical support to the labouring adolescent mother and to concentrate on her needs (Hodnett et al., 2006). Culturally, in Swaziland, men are not permitted to accompany women in labour to the maternity ward. However, women are allowed to accompany the woman but not permitted to stay. None of the adolescents were encouraged by the health staff to be attended by a companion during labour, indicating that midwives do not follow evidence-based practices showing that continuous support during labour has a strong positive impact on the labouring process. Neither did the midwives adhere to the historically strong traditions that a traditional birth attendant and other women should support a labouring woman during home deliveries. Support is essential in modern midwifery, but it is impossible for the midwife to provide adequate support throughout the whole birth process because midwives are expected to care for more than one labouring woman at a time (Berg & Terstad, 2005).

Although midwifery discourse emphasizes caring, the practice may be quite different and characterised by humiliation and physical abuse. During the home visits some of the participants in study II reported that they had been scolded by the midwives in the labour ward. Studies in Swaziland and neighbouring countries have shown that service providers were negative and judgmental towards adolescents when they sought maternity care, especially on SRH issues (McLean, 1992; Warenus et al., 2006). In a study in South Africa on “why do nurses abuse patients in maternities” the results suggested that midwives had continuously struggled to maintain their professional

identity and in the process deployed violence against women as a means of creating social distance and maintaining fantasies of identity and power (Jewkes et al., 1998). In another study conducted in Ibadan, Nigeria, “assessing the attitudes and health care service provision by health workers, regarding adolescent contraception” the results revealed that more than half of the respondents had counselled adolescents but only a third (similar to our study) had counselled and prescribed contraceptives for adolescents. The Nigerian study concluded that unless more adolescents are provided with better contraceptive services, the incidence of unwanted pregnancies among adolescents will increase (Adekule et al., 2000).

Breastfeeding support and mother-infant interaction

Most of the mothers were encouraged to start breastfeeding their babies immediately after delivery and to breastfeed on demand. This was an encouraging finding compared to earlier studies on maternity quality of care from Zambia before the introduction of WHO/UNICEF Baby Friendly Hospital Initiative (BFHI), which showed severe deficiencies in promoting early mother-infant interaction, prevention of hypothermia in the newborn and support for breast-feeding (Christensson et al., 1988; Ransjö-Arvidson et al., 1989). Adolescent mothers require extra support for successful breastfeeding as well as information on the importance of early initiation of breastfeeding so that they become aware of the benefits of breastfeeding for their newborns and the importance of early newborn-mother contact immediately after delivery. There is also a need to discuss the relationship between HIV and breastfeeding e.g. providing information on the alternatives of either exclusive breastfeeding for six months without introduction of any other food or not to breast feed at all for those who can afford to buy the formula food if the mother is HIV positive.

Postpartum care and social support

Parents and family members initial reaction to adolescent pregnancy was described as negative (II). The negative responses may be a source of conflict between the adolescent and the parent. Under normal circumstances, newly delivered mothers return home with her baby to her family and community. However, if the mother is an adolescent without a partner, she may face relation problems with her family and community because they disapprove of her having a baby before marriage. As neonatal and infant mortality is high in children of adolescent mothers, the family and/or community members or caregivers should be aware of these problems. They should prepare a suitable environment for the mother and her baby, which the adolescent mothers are mostly in need of.

During the home visits by the principal investigator, more than half of the adolescent mothers did not know on which date they should return for a postnatal check-up, family planning information and immunisation of their babies. The appointment dates had been given only verbally and no recording was made either in their record or on a note given to the adolescent mother as a reminder. Consequently, the mother might not appear, or appear late, to the postpartum clinic. This will result in

lack of supervision of the health of the mother and her baby, lack of family planning, and that the baby will not be given the immunizations in time.

In Swaziland, the quality of health care in general, not only maternity care, has been compromised during the last years (MOHSW/WHO, 2004). HIV/AIDS poses tremendous physical and psychological challenges for those who are infected as well as for their families and the health care system. The burden of the disease is confounded by many factors including caring for children, caring for an HIV positive spouse, fear of disclosure, stigma and discrimination, earning a living and poverty (Grant & De Cock, 2001). In a recent study on the symptom experiences of PLWHA in Botswana, Lesotho, South Africa and Swaziland, the study results showed a complex picture of HIV-related symptoms in the four countries. Because of the high levels of symptoms reported, the results imply an urgent need for management in countries where anti-retroviral therapy is unavailable in order to help patients and their families to manage and control AIDS symptoms and improve quality of life (Makoae et al., 2005).

The major constrain for nurses is the risk of exposure to HIV infection. The health service has become a very stressful place to work at after the advent of AIDS (Makoae et al., 2005). Health care providers often feel helpless and demoralised and may distance themselves from patients especially if they suspect they are HIV infected. Health care providers who have no or little education about sexuality feel incompetent to deal with adolescents in relation to childbearing and HIV/AIDS (Makoae et al., 2005). With ARV treatment, if available and implemented at all levels, both rural and urban, the quality of health care might improve (Makoae et al., 2005). Regrettably, less than eight percent people living with HIV/AIDS in Africa are currently on ARV therapy (WHO/UNAIDS, 2004). In most low-income countries, the poor availability and efficiency of health infrastructure is the dominant obstacle to effective health care. Adequate primary health care infrastructure and staff is fundamental to the provision of treatment programmes. Whiteside & Lee (2005), argue that where ARV drugs and services are administered, providing treatment for free would assist patients to gain greater access to, remain adherent to, and avoid instability in treatment regimen. The 3 by 5 campaigns (Campaign for Universal, Free Antiretroviral Therapy by 2005) maintains that user fees are an additional and unnecessary obstacle to treatment access, efficiency and equity of treatment programmes. Removal of patient fees for adolescents, who in general have no income of their own but are dependent to their parents or other relatives for any financial assistance, might be an important way to improve access (Whiteside & Lee, 2005).

In Swaziland, like in many African countries, socio-cultural and gender factors and lack of adequate knowledge among parents, grand parents and other adults have prevented open dialogues on sexuality and reproduction including abortion (McLean, 1992). Traditionally, in the Swazi family, parents and close relatives are seen as the ones to teach practices on sexuality and reproductive norms through initiation ceremonies. The parents, grandparents and other relatives may not have adequate and appropriate information about sexuality, reproductive physiology, antenatal and postnatal care. As a result, this could be one of the reasons why about three-quarters of

the pregnant adolescents started attending antenatal care clinic later than 3 months (II), which is the recommended period in Swaziland.

“Decision-making and negotiation about sex”, “sex and risks” and “needs for information” (III, IV)

Risk is a phenomenon that dominates contemporary thinking (Tierney, 1999). Risk-taking behaviour, that exposes an individual to the probability of negative consequences in the future, consists of the probability of loss but also the prospect of gain. In contrast, risk avoidance offers safety at the same time as the individual incurs a certain loss to avoid a probable and greater loss in future (Ahlberg et al., 2001). Risk-taking is related to the adolescents' age during which they want to experiment with sex (WHO, 1993). Early initiation of sexual activity exposes the adolescent boys and girls to HIV infection if sex is unprotected. The inability of adolescent boys and girls to control their sexual desires and lack of trust in partners as indicated in studies III and IV are some of the reasons why the adolescents considered themselves to be at risk of sexual behaviours. For behavioural change to occur, adolescents have to realise that some of the behaviours place them at risk.

Adolescents in Swaziland live within an officially prohibitive sexual moral regime with limited access to information and preventive services (McLean, 1992). Contrary to emerging evidence, it is believed that sexual education would lead to sexual experimentation and any suggestion to introduce sexual education in schools has met with strong public protest (UNAIDS, 1997). Yet the adolescent SRH scenario includes high rates of unplanned pregnancies, school dropout, STIs/HIV and induced abortions suggesting that adolescents engage in unprotected sexual activity, despite moral prohibitions (Ahlberg et al., 2001).

Sexual debut

The ideal age for sex debut in Swaziland was said to be 16-17 years for girls and boys respectively. But boys and some girls in the FGDs mentioned that the actual age was 3-4 years lower (III). Too early and unplanned pregnancies, STIs, HIV/AIDS, school-drop-out and unsafe abortions among adolescents constitute threats for the society (McLean, 1992). The physiological urge for sexual activity seems to make adolescents believe that they are not vulnerable to the negative outcomes of risky sexual behaviour.

Condom use

The majority of the adolescents in study III were aware that use of condoms are the best way to protect themselves from unwanted pregnancy HIV/AIDS and other STIs, but the results from study III also showed that adolescents felt that condoms were for prostitutes, for those who have casual partners or those who engage in extra-marital sex. The adolescents mentioned that suggesting condom use to a partner implies that one is infected with an STI. Many adolescents perceived having sexual intercourse with condoms as un-pleasurable, artificial or too indirect. In a community-based study on cultural and gender issues related to HIV/AIDS prevention in rural Swaziland, people

had heard of condoms, but few had actually used them. They had heard many negative aspects about condoms, including reduced sensation, ease of rupture, and lack of availability or access (Buseh et al., 2002). With known evidence that condoms have a double protective effect, preventing unplanned pregnancies and preventing the spread of STIs/HIV/AIDS, every commitment should be to fully implement the mandates for use as declared in the “Global Crisis-Global Action” as presented by the United Nations (UN, 2006).

Despite efforts in promoting condom use, adolescents still engage in risky sexual behaviours and condom use remain low in Swaziland (SHAPE, 2003). Several studies have found that adolescent boys’ perceptions of condoms tend to be negative (Muyinda et al., 2001; Nzioka, 2001). Studies have also shown that adolescents have concerns about condom safety and breakage condom ineffectiveness e.g. condoms have small holes or they can disappear into the vagina, and the negative effect of condom use on sexual enjoyment (Hulton et al., 2000). In a study conducted in Kenya by Nzioka, (2001) on “perspectives of adolescent boys on the risks of unwanted pregnancy and sexually transmitted infections” the results revealed that, despite the high knowledge of sexual risks, fear of HIV and awareness of the protective value of condoms, the adolescent boys exhibited high risk behaviour. They felt the need to conform to social prescriptions of male prowess, early sexual experience and having more than one partner, as it was the case in our studies III and IV.

Lack of trust in the sexual partner

The boys in study IV, lacked trust in their girlfriends, as unfaithfulness were common in both sexes. They also accused the girls of having multiple partners for economic gains, which made the boys deny the responsibility for the pregnancy. Luke (2003), made a review on age and economic transactions in the sexual relationships of adolescent girls in sub-Saharan Africa and the behavioural dynamics of girls and men involved in these partnerships. The study found that in the relationships between adolescent girls and older men, economic transactions were common. Although the reasons that adolescent girls engaged in sexual relationships with older men varied, the financial benefits was a major motivation. The review presented evidence that girls had considerable negotiating power over certain aspects of the sexual relationships with older men including partnership formation and continuation. However, the girls had little control over sexual practices including condom use and violence. Also, there is evidence on the sexual exploitation of adolescent girls, the so-called sugar-daddy phenomenon (Ahlberg et al., 2001). A relationship in which adolescents are forced by wealthy older men to exchange sex for money and material gifts and in which families partners secretly provide contraceptive and secure abortions for their daughters and girlfriends, but publicly deny such actions. Adolescents therefore live within a highly paradoxical situation of prohibition, silence, denial, and sexual exploitation (Ahlberg et al., 2001).

The need for trust in the sexual partner as expressed in the FGDs can be an important step in promoting sexual health and preventing infections and unplanned pregnancies among adolescents (III, IV). Boys viewed abstinence as a possibility to

avoid these risks. However, it was mainly the girls who were expected to abstain and not the boys (III). The boys perceived themselves as having more sexual freedom. This is viewed as a gender bias where girls are expected to take the risks while at the same time the boys are benefiting in the process. In Swaziland, the policy is silence on gender dynamics at relational and family levels where love often alternates with violence, which is the place where adolescents observe and internalise the roles, expectations and privileges that affect their adult behaviour. The problems between culturally defined sexual and gender norms and public health assumptions should be addressed at the family level and, of course, in the community as a whole.

Peer pressure

Adolescents in studies III and IV mentioned that they were influenced by their peers to engage in sexual activity. Our studies show that the majority of adolescents mentioned that they had got information on sexuality and push to engage in sexual activity from their peers. Peer pressure compels members of the group to conform and to try to live up to the expectations of the group. According to this view, the individual decision-making is swayed in the direction of the social norm. Zwane (2000) says that peer education is a good example of the way in which peer norms may influence sexual behaviour. Peer education is believed to be effective not only in promoting the acceptance of safer sex, but also in suggesting notions of its widespread adoption.

The importance of peer pressure influence in sexuality is documented by Poudel et al., (2004). Evidence for the effect of peer pressure was found in a study of high school students where participants, whose friends had sexual intercourse and never used condoms, were three times more likely than their peers to demonstrate risky behaviour (Keller, 1996). In a study by Adinma & Okeke, (1995), on “contraception: awareness and practice amongst Nigerian tertiary school girls”, it was found that peers were the primary source of information on contraception. In another study by Felder & Tucker, 1988 on “understanding men and programming sexuality education to meet their needs”, friends were mentioned as the primary source of sexual learning for young men rather than families or schools. Reducing the risk of HIV infection requires not only changing individual behaviour but also re-negotiation of dominant norms and patterns of interaction between and among adolescents engaged in the health risk. Adolescent boys are usually weak to re-negotiate these norms because of the external pressures from their peers and the pervasive influence of negative images from the media (Ndubani, 2002).

Adolescent fathers

Most of the adolescents in study IV belonged to the out-of-school group and they were also responsible for their siblings as most of their own parents had died of AIDS. Out of school youth are likely to be more marginalized compared to those who are in school and often in need of essential services, such as pregnancy prevention and prevention of HIV/AIDS and other STIs. The majority of the adolescent fathers were not working and they tended to hang around with their peers doing nothing due to lack of recreational activities. This “hanging around” would lead young people to engage in unprotected

sexual activities, which may result in early and unplanned pregnancies and STIs including HIV. The boys suggested that community projects should be created specifically for this group so as to enable them to take care of their families and to live better and healthier lives. Recreation facilities and activities in the communities were felt needs by the adolescent boys to keep the adolescents occupied and prevent them from engaging in risky sexual behavior.

Parent-adolescent communication

In this thesis, the adolescents expressed that they would like to obtain SRH health information from parents (IV) more than they presently do. The boys felt that their parents were not communicating to them on issues related to sexuality and reproductive health. The findings from studies III, IV indicated that there was lack of communication about SRH matters between parents and their adolescent children, which was a concern among the adolescents. Yet parents were viewed by the adolescents as the appropriate people to educate them on proper roles in relation to sexuality. The boys and girls in study III expressed that they would like to receive support from their parents when unexpected and unwanted “things” such as an unplanned pregnancy occurred.

Some studies have shown that communication between parents and their adolescents about SRH issues is associated with safer sexual practices among young people (Dilorio et al., 1999). Studies from the United States of America, on parental involvement in provision of clinic-based SRH services, showed that some parents not only are aware that their daughters are accessing FP services, but they are involved in/and supportive of these visits (Nathanson & Becker, 1986). Further, in two studies they found that 12-13 percent of adolescent contraceptive clients consulted with their mothers before visiting a FP clinic. At Baltimore FP clinics, 57 percent of adolescents seeking pregnancy tests had discussed the potential pregnancy with a parent before hand (Zabin et al., 1992). In another study, six percent and 15 percent of adolescents had learned of the FP clinic from a parent or had visited the clinic at a parent’s suggestion respectively (Mosher & Horn, 1988). Nathanson & Becker (1986) suggest that black parents’ higher levels of involvement may be due to a combination of economic pressures and a strong sense of family obligations. In many low-income countries much of the responsibility for children born out of wedlock falls to the adolescents mothers. In turn, mothers of adolescents who are at risk of unintended pregnancy may be particularly motivated to become involved in their daughters’ reproductive health decisions (Nathanson & Becker, 1986). This reinforces the need to encourage parents to play a crucial role in communicating with their adolescents about sexual and reproductive health issues.

Although most parents are concerned that their children are well informed about SRH issues, they are embarrassed and they hold traditional attitudes and are not sufficiently informed to provide that information themselves. Programmes that equip parents with knowledge and in communication skills on these issues are needed. Therefore, there is need for programmes to target parents as potential sources and remind them of their important responsibilities and roles in helping adolescents to go

through safely the route to adulthood. There is no doubt that in order to be acceptable and effective, programmes need to be designed, in consultation and coordinated with young people themselves.

Provision of ASRH service needs by health care providers in Swaziland (V)

Provision of services

The findings reveal that the respondents were willing to provide ASRHS although they confronted some problems regarding the service provision such as provision of contraceptives and abortion care. Similar findings have been found in other low-income countries (Nare et al., 1997; Adekunle et al. 2000). In a study in Nigeria, on “adolescent contraception: survey of attitudes and practice of health professionals”, it was observed that about half of the health workers that did not approve of family planning and were not favourably disposed to adolescent contraception and that those who counsel adolescents on the use of contraceptives were more likely than those who do not to approve of its use (Adekunle et al., 2000). Other studies have shown that adolescents are unable to access or are restricted from receiving SRH services which leaves a gap in the health service system (McClauley & Salter, 1995), which was the case in this study. There are several obstacles that inhibit the access of adolescents to contraceptives and abortion care that have been identified in this study. Prominent among the obstacles is the reluctance and ambivalence on the part of service providers. Studies have pointed out that health care provider attitudes are a prominent factor that constrains adolescents from using reproductive health services, especially in settings where sexuality is associated closely with marriage and childbearing (Nare et al., 1997; Adekunle et al. 2000). In another study in China, on “do family-planning workers support provision of sexual and reproductive health services to unmarried young people?”, the findings showed that although more than two-thirds of all respondents were willing to provide contraceptives to unmarried people, they qualify such willingness with the condition that the clients were aged 18 years or above (Tu et al., 2004).

It is also stated elsewhere that some health care providers not only hold conservative attitudes about sexual activity among the adolescents but they also consider the adolescents as outside the realm of the population they are expected to serve (WHO, 2003b). Hence, this hinders the creation of a window of opportunity where the health staff can have open discussions with the adolescents on issues related to sexuality and other SRH issues.

Further, the health care providers seemed to have unresolved moral doubts and were confronted with ethical dilemmas in relation to provision of contraceptive and abortion and the reality that adolescents engage in premarital sex. The ambivalence of the respondents in our study, are the continued adherence to traditional norms and values, ambiguities and limitations in the current SRH policy, which is in a draft form and the illegality of abortion in the country. The judgemental approach of some of the respondents has acted as a barrier in providing quality ASRH services. On the other hand the health care providers are faced with the recognition of the need to protect the SRH of adolescents.

Despite the ambivalence of negative attitudes the respondents were concerned about the SRH of adolescents such that some expressed the need to be trained on how to perform an abortion although it is illegal in Swaziland. However, those who would not agree to assist with an induced abortion; mentioned that they were willing to counsel the adolescent girl and explain the advantages and disadvantages and refer her to where she could get assistance. The respondents also expressed the need for the establishment of youth-friendly services to be supported by the government and training of health care providers in comprehensive ASRH care as a way to improve adolescent health.

Breast feeding, immunisations and information

The findings reveal that very few respondents answered that they talked to adolescent mothers about breastfeeding and immunizations. This was a surprising finding since breastfeeding and immunization are key topics of pre-, intra- and postnatal care. Yet a contradictory result was found in study I, whereby most of the adolescent mothers were encouraged by the health care providers to start breastfeeding their babies' immediately after delivery and to breastfeed on demand. The reason for the contradictory findings could be that the health care providers working in the maternity ward might have had continuous training on the importance of breastfeeding and most of the staff is qualified in Advanced Midwifery and the ones in study V might not have had any continuing training on breastfeeding. Also, it is possible that it could have been a methodological problem in the way the question was asked in the questionnaire, such that the respondents might assume that it is a known fact that they are expected to discuss breastfeeding with their clients, thus they did not mention it.

Another surprising finding was that the about three-quarters of the respondents answered that they would personally provide family planning services to their own daughters if they were sexually active, yet during their routine work only a quarter mentioned that they provided contraceptives to the adolescents. This could mean that the respondents become more sensitive, responsive and conscious on issues that directly involve them than those of the other adolescents.

The study findings also show that, adolescents were advised on STI/HIV/AIDS pre- and post-test counselling and testing, which is highly commendable especially for adolescent girls since they are often more vulnerable to HIV/AIDS and STIs than their male counterparts (Center for Reproductive Health Rights, 1999). In an environment where some facilities lacked contraceptive and condom services like in this study, it can be impossible for adolescents to protect themselves from STIs/HIV and unwanted pregnancies. In such a situation, appropriate measures are needed to ensure adolescent access to comprehensive health information and services, to guarantee that those who are already suffering from STIs, have access to appropriate services and counselling and to ensure that, those who are infected with HIV/AIDS are protected from discrimination in health services.

The inadequate and inappropriate IEC (Information, Education, Communication) was a concern to the health care staff. The provision of appropriate and acceptable sexuality education materials requires the development of suitable materials and the

delivery of information by suitably trained personnel. Therefore, there is need to pay attention in the development of age specific materials and appropriate educational activities that will suit adolescents whether in-school or out-of-school. This will enable the adolescents to acquire scientific knowledge as well as counselling on issues related to love relationships, negotiating condom use and more practical information on the sources of supplies and services.

Training and supervision

The need for more updated knowledge on comprehensive ASRH and supervision that was expressed by the participants indicate that, health care providers are interested in assisting and supporting the adolescents, given the appropriate education, training and environment to enable them to provide quality ASRH care services. The supportive supervision in provision of ASRH services that was revealed as weak, require to be strengthened because supervision provides formal learning, support and enables individual health care providers to develop knowledge, competence and to assume responsibility of their practice. This enhances consumer protection and safety of care in complex situations such as in ASRH services. Edwards et al. (2005), has acknowledged clinical supervision as an essential pre-requisite for high quality care, however, an effective administrative and monitoring and evaluation system is needed to generate the necessary momentum for successful implementation of ASRH at all levels to improve the quality of care in relation to adolescent issues. Training programmes need to be revised to ensure that health care providers are knowledgeable, skilled and welcoming to adolescent issues. Pre-service training should include ASRH as well as communication skills component. If health care providers can be more receptive to ASRH needs and services more accessible the incidence of unwanted pregnancies and STIs/HIV/AIDS can be reduced. In order to achieve and maintain quality standards of ASRH services, management and supervision of ASRH services should focus on supporting the health care providers (WHO, 2002b). Evaluation research of services by adolescents is needed to identify problems related to ASRH services.

The responses from the health care providers have pointed out some aspects which are important for quality of care as described by Donabedian. Referring to his theories one could comment that the *structure* was very weak since the providers lacked adequate training in providing quality ASRH services and that there was a lack of commodities such as contraceptives. The *process* highlights the ambiguities of the providers emerging from their own values and the reality regarding provision of contraceptives and abortion care. As a result the *outcome* was that the ASRH services were not in practice adequately accessible to adolescents and demonstrated obvious quality weaknesses .

CONCLUSIONS

- Quality of maternity care for adolescent mothers by the health staff was inadequate.
- Adolescents risk taking behaviour was influenced by peers as they are the main source of information on issues related to sexuality and reproduction.
- Adolescents lacked adequate information about sexuality and reproduction.
- There was poor communication between adolescents and parents on SRH issues and need to be improved.
- Adolescent boys lacked responsibility in relation to sexuality, reproduction and parenthood.
- Factors related to the neglect of ASRH were lack of adequate training in comprehensive ASRH issues, negative attitudes/behaviours, unresolved moral and ethical dilemmas in relation to contraceptives and abortion care.
- Adolescent SRH services were inadequate and remained poorly understood and met by the health care providers.

IMPLICATIONS OF FINDINGS

The results of this thesis suggest several important implications for improving the ASRH situation in Swaziland.

To sexual and reproductive health and rights

The research adds to the available evidence based findings for the need to integrate comprehensive ASRH and abortion care to the reproductive health and rights (RHR) programme in Swaziland. It also highlights the inadequate access to appropriate SRH services for adolescents.

To health care providers

This research highlights the need for health care providers to acquire training on comprehensive ASRH including abortion care. Health care providers' attitudes, counselling and communication skills in relation to ASRH need to be improved. Value clarification and reflective training for health care providers is needed to enable them to deal with issues related to SRH with adolescents appropriately.

To the community

Parents, adults, schools, churches, media, non-governmental organisations and any other organisations working with young people need to be educated on how to improve their communication with the young people regarding issues related to SRH.

For policy makers

Improving the ASRH in Swaziland requires a multi-sectoral response as it has broader implications beyond the health care system. The support from all the policy makers in the different sectors is highly needed to achieve in the improvement of the ASRH services in Swaziland. Epidemiologists, Social Scientists, Anthropologists and other interdisciplinary fields, are very important in other fields of study such as in SRH studies. Therefore they should view themselves as an important part of a complex system.

Future research

A need for future studies emerges from the data presented above. Particularly, there is a need for research focussed on the roles of boys and girls in the practices and ways to avoid risky sexual behaviour in relation to gender. Furthermore, intervention studies on improved SRH services for the adolescents and intervention studies to evaluate the effectiveness of various approaches in providing SRH information, education and communication are needed. There is need for future studies to consider adolescents views about health care providers and SRH services. This will show a broader picture of the actual ASRH situation in Swaziland. In addition, future research should focus on approaches combining qualitative and quantitative methods to understand adolescent sexuality and reproductive health issues well.

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REFERENCES

- Adekunle AO, Arowojolu AO, Adedimeji AA, Roberts OA. Adolescent contraception: survey of attitudes and practice of health professionals. *Afr J Med Med Sci* 2000;29:247-52.
- Adinma JI, Okeke AO. Contraception: awareness and practice amongst Nigerian tertiary school girls. *West Afr J Med* 1995; 14: 34-8.
- Ahlberg BM, Jylkäs E, Krantz Ingela. Gendered construction of sexual risks: implications for safer sex among young people in Kenya and Sweden. *Reprod Health Matters* 2001;9:26-36.
- Bacci A, Hausse AO, Mucumbi S, Ferro J, Carlomagno G. Some considerations on teenage pregnancies in the Central Hospital of Maputo, Mocambique. *J Foet Med* 1993;13:1-4.
- Barbour RS, Kitzinger J (Eds). *Developing Focus Group Research: Politics, Theory and Practice*. London: Sage 1999.
- Berg M, Dahlberg K. Swedish midwives' care of women who are at high obstetric risk or have obstetric complications. *Midwifery* 2001;17:159-266.
- Berg M, Terstad A. Swedish women's experiences of doula support during childbirth. *Midwifery* 2006;22:330-8.
- Blum RL, Nelson-Mmari K. The health of young people in a global context. *J Adolesc Health* 2004;35:402-18.
- Blumenthal D. Quality of Health care. Part 1: Quality of care - what is it? *N Engl J Med* 1996;335:891-4.
- Burnard P. A method of analysing Interview Transcription in Qualitative Research. *Nurse Educ Today* 1991:461-6.
- Buseh AG, Glass LK, McElmurry BJ, Mkhabela M, Sukati NA. Primary and preferred sources for HIV/AIDS and sexual risk behaviour information among adolescents in Swaziland Southern Africa. *Int J Nurs Stud* 2002;39:525-38.
- Call KT, Riedel AA, Hein K, McLoyd V, Petersen A, Kipke M. Adolescent Health and Well-Being in the Twenty-First Century: A Global Perspective. *J Res Adolesc* 2002;12:69-98.
- Callister LC. Making meaning: Women's birth narratives. *JOGNN* 2004;33:508-518.
- Campbell C, Foulis CA, Maimane S, Sibiyi Z. "I have an evil child in my house": Stigma and HIV/AIDS management in a South African community. *Publ Health Matters* 2005;95:808-15.
- Center for Reproductive Rights. *Implementing adolescent reproductive rights through the convention on the rights of the child*. New York, 1999.
- Christensson K, Ransjö-Arvidson A-B, Kakoma C, Lungu F, Darkwah G, Chikamata D, Sterky G. Midwifery care routines and prevention of heat loss in the newborn: a study in Zambia. *J Trop Pediatr* 1988;34:208-12.
- Cook RJ, Dickenns BM, Fathalla MF. *Reproductive health and human rights: Integrating Medicine, Ethics and Law*. Oxford: Clare Press, 2003.
- Cottingham J, Myntti C. Reproductive health: conceptual mapping and evidence. In: Sen G, George A, Östlin P (Eds). *Engendering International Health. The challenge of Equity*. Massachusetts, London, England: The MIT Press Cambridge, 2002.
- CSO, 1997. (Central Statistics Office). *Report on the Swaziland Population and Housing Census. Vol.4 Analytic Report*. Mbabane, Swaziland: Central Statistics, 1997.

- Dahlbäck E, Makelele P, Ndubani Ph, Yamba B, Bergström S, Ransjö-Arvidson AB. "I am happy that God made a boy". *Zambian adolescents boys' perception about growing into manhood.* *Afr J Reprod Health* 2003;7:49-62.
- Dahlgren L, Emmelin M, Winkvist A. *Qualitative methodology for international public health.* Umeå University: Print och Media, 2004.
- Dean AG, Jeffrey AD, Coulombier et al. *EPINFO version 6. A world processing, database and statistics system for epidemiology on microcomputers.* The Division of Surveillance and Epidemiology, Epidemiology Program Office, Centers for Disease Control and Prevention, Atlanta, Georgia, 1994.
- Dickens BM, Cook RJ. *Adolescents and consent to treatment.* *Int J Gynecol Obstet* 2005;89:179-84.
- Dilorio C, Kelly M, Hockenberry-Eaton M. *Communication about sexual issues: Mothers, fathers and friends.* *J Adolesc Health* 1999;24:181-9.
- Dlamini A. *Youth at the Margins: Traditional, Sexuality and Young People's Struggle with HIV/AIDS in Swaziland. Draft Report. A UNESCO Programme for HIV/AIDS Education, Prevention, Treatment and Care and a Culturally Sensitive Approach to HIV/AIDS to bring about Behaviour Change.* Swaziland National Commission For UNESCO, Kingdom of Swaziland, November, 2005.
- Donabedian A. *The quality of care. How can it be assessed?* *JAMA*, 1988;260;7:43-8.
- Downe-Wamboldt B. *Content analysis: method, applications and issues.* *Health Care Women Int* 1992;13:313-21.
- Edwards D, Cooper L, Burnard P, Hanningan B, Juggesur T, Adams J, Fothergill A, Coyle D. *Factors influencing the effectiveness of clinical supervision.* *J Psychiatr Ment Health Nurs* 2005;12:405-14.
- Faxelid E. *Quality for care of patients with sexually transmitted diseases in Zambia.* Stockholm: IHCAR, Karolinska Institutet, 1997. Thesis.
- FCI, 2005. (Family Care International). *Saving Women's Lives: The Skilled Care Initiative.* Family Care International, 2005.
- Felder C, Tucker J. *Understanding men and programming sexuality education to meet their needs.* *Men's Reprod Health* 1988;2:4-7.
- Fonn S, Philpott H. *Preparatory report for workshop on maternity and neonatal services policy for the PWV (Pretoria, Witwatersrand and Vereeniging), South Africa.* *Urban Health Newsl* 1995;25:38-52.
- Freudenthal S. *Visualising the invisible: exploring interactive video in HIV prevention in rural Zambia.* Stockholm: Karolinska Institutet, Division of International Health (IHCAR), Department of Public Health Sciences, 2000. Thesis.
- Furstenberg FF Jr. *When will teenage childbearing become a problem? The implications of western experience for developing countries.* *Stud Fam Plann* 1998;29:246-53.
- Gage AJ. *Sexual activity and contraceptive use: the components of the decision-making process.* *Stud Fam Plann* 1998: 29:154-66.
- Graneheim UH, Lundman B. *Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness.* *Nurse Educ Today* 2004;24:105-12.
- Granja AC, Muchango F, Gomes A, Bergström S. *Adolescent maternal mortality in Mocambiques.* *J Adolesc Health* 2001;28:303-6.

- Grant AD, De Cock KM. ABC of AIDS, HIV infection and AIDS in the developing world. *BMJ* 2001;322:1475-8.
- Gray JH, Denstein IL. Integrating quantitative and qualitative analysis using latent and manifest variables. *Qual Quant* 1998;32:419-31.
- Harrison A, Xaba N, Kunene P. Understanding safe sex: gender narratives of HIV and pregnancy prevention by rural South African school-going youth. *Reprod Health Matters* 2001;9:63-71.
- Hodnett ED, Gates S, Hofmeyr GJ, Sakula C. Continuous support for women during childbirth (Cochrane Review). In: *The Cochrane Library, Issue 1*. Chichester, UK: John Wiley and sons Ltd, 2006.
- Hofmeyr GJ, Nikodem VC, Wolman W-L, Chalmers B, Kramer T. Companionship to modify the clinical birth environment: effect on progress and perceptions of labour and breastfeeding. *Br J Obstet Gynaecol* 1991;98:756-64.
- Högberg U, Wall S, Broström G. The impact of early medical technology on maternal mortality in late 19th century Sweden. *Int J Gynaecol Obstet* 1986;24:251-61.
- Holsti OR. *Content analysis for social sciences and humanities*. London: Addison-Wesley Publishing Company, 1969.
- Hulton LA, Cullen R, Khalokho SW. Perceptions of the risks of sexual activity and their consequences among Ugandan adolescents. *Stud Fam Plann* 2000;31:35-46.
- ICN, 2006. (International Confederation of Nurses). A strong call for an effective funded UN agency for women, 2006 13th June.
- Jewkes R, Abrahams N, Cerna ZM. Why do nurses abuse patients? Reflections from South African obstetric service. *Soc Sci Med* 1998;47:1781-95.
- Jewkes R, Vundule C, Maforah F, Jordaan E. Relationship dynamics and teenage pregnancy in South Africa. *Soc Sci Med* 2001;52:733-44.
- Kasanene P. *Swazi Traditional Religion and Society*. Mbabane, Swaziland: Apollo Printers, 1993.
- Keller ME. Adolescents' views on sexual decision-making. *Image J Nurs Sch* 1996;28:125-30.
- Klaus MH, Kennell JH, Klaus PS. *Mothering the mother. How a Doula can help you have a shorter, easier and healthier birth*. New York: Addison-Wesley Publishing Company, 1993.
- Klaus MH, Kennell JH, Robertson S, Sosa R. Effects of social support during parturition on maternal and infant morbidity. *Br Med J (Clin Res Ed)* 1986;293:585-7.
- Kober K, Van Damme W. Public sector nurses in Swaziland: can the downturn be reversed? *Hum Resour Health* 2006;4:13.
- KOS, 1999. (Kingdom of Swaziland). *National Development Strategy (NDS). Vision 2022: Key macro and sectoral strategies*. Mbabane, Swaziland: Print design, 1999.
- KOS/UN, 2006. *United Nations Development Assistance Framework for the Kingdom of Swaziland 2006-2010*. Mbabane, Swaziland, 2006.
- Lech MM, Mngadi PT. Swaziland's traditional birth attendants' survey. *Afr J Reprod Health* 2005;9:137-47.
- Luke N. Age and economic asymmetries in the sexual relationships of adolescent girls in sub-Saharan Africa. *Stud Fam Plann* 2003;34:67-86.

- Lugina HI. Women's postpartum concerns and midwives reflection on postpartum care. Studies in Dar es Salaam, Tanzania. Uppsala: Uppsala University, Faculty of Medicine, 2001. Thesis.
- Lule E, Rosen JE, Singh S, Knowles JC, Behrman JR. Adolescent Health Programme. In: Jamison, et al. Disease Control in Developing Countries (2nd Ed). New York: Oxford University Press and World Bank, 2006.
- Madi BC, Sandall J, Bennett R, MacLeod C. Effects of female support in labour: A randomised controlled trial. *Birth* 1999;26:4-8.
- Maimbolwa MC. Maternity care in Zambia: with special reference to social support. Stockholm: Division of International Health (IHCAR), Department of Public Health Sciences, Karolinska Institutet, 2004. Thesis.
- Makoae LN, Seboni NM, Molosiwa K, Moleko M, Human S, Sukati NA, Holzemer WL. The symptom experience of people living with HIV/AIDS in Southern Africa. *J Assoc Nurses AIDS Care* 2005;16:22-32.
- McCauley AP, Salter C, Kiragu K, Senderowitz J. Meeting the needs of young adults. *Popul Rep J* 1995; 41:1-43.
- McFadden P. Health is a gender issue. *South Afr Polit Econ Mon* 1994;7:59-61.
- McLean PE. Perceptions and attitudes of men and women towards family planning in Swaziland. Boulder, Colorado: Family Life Association of Swaziland and the University of Colorado, 1992.
- MGH, 1998. (Mbabane Government Hospital). Annual Report. Mbabane, Swaziland, 1998.
- Mosher WD, Horn MC. First family planning visits by young women. *Fam Plann Perspect*, 1988;20:33-40.
- MOE, 1999. (Ministry of Education). Impact assessment of HIV/AIDS on the education sector. Mbabane, 1999.
- MOH, 2002. (Ministry of Health). Health Statistics Report 2001-2002. Ministry of Health and Social Welfare. Mbabane, Swaziland, 2002.
- MOHSW, 2000. (Ministry of Health and Social Welfare). National Strategic Framework on HIV/AIDS 200-2005, Mbabane: Government of Swaziland, 2000.
- MOHSW, 2002. (Ministry of Health and Social Welfare). Reproductive health needs assessment. Reproductive Health Programme. Swaziland, 2002.
- MOHSW, 2005. 9th Round of National HIV Sero-surveillance in Women Attending Antenatal Care Services at Health Facilities in Swaziland, Survey Report, 2005. Mbabane: Kingdom of Swaziland, 2005.
- MOHSW/WHO, 2004. (Ministry of Health and Social Welfare/World Health Organization). A situation analysis of the health workforce in Swaziland. MOHSW/WHO, 2004.
- Morrison RS, Peoples L. Using focus group methodology in nursing. *J Contin Educ Nurs* 1999;30:62-5.
- Morse JJ, Field PA. Nursing Research. The application of qualitative approaches. London: SAGE, Chapman & Hall, 1996.
- Motil KJ, Kertz B, Thotathuchery M. Lactational performance of adolescent mothers shows preliminary differences from that of adult women. *J Adolesc Health* 1997;20:442-9.

- Mulogo EM, Witte K, Bajunirwe F, Nabukera SK, Muchunguzi C, Batwala VK, Bagenda F, Farr C, Barry S. Birth plans and health facility based delivery in rural Uganda. *East Afr Med J* 2006;83:74-83.
- Muyinda H, Kengeya J, Pool R, Whitworth J. Traditional sex counselling and STI/HIV prevention among young women in rural Uganda. *Cult Health Sex* 2001;3:353-61.
- Nadeau J, Bankole A. Men have needs too: men must be part of the ICPD solution. In: The Alan Guttmacher Institute. *Their Own Right: Addressing the sexual and reproductive health needs of men worldwide*. New York, 2003.
- Nathanson CA, Becker MH. Family and peer influence on obtaining a method of contraception. *J Marriage Fam* 1986;48:513-25.
- Nare C, Katz K, Tolley E. Adolescents' access to reproductive health and family planning services in Darkar (Senegal). *Afr J Reprod Health* 1997;1:15-25.
- Ndubani P. Young men's sexuality and sexually transmitted infections in Zambia. Thesis. Stockholm: Division of International Health (IHCAR), Department of Public Health Sciences, Karolinska Institutet, 2002.
- Neuendorf KA. *The Content Analysis Guidebook*. London: Sage, Thousand Oaks, 2002.
- Nzioka C. Perspectives of adolescent boys on the risks of unwanted pregnancy and sexually transmitted infections: Kenya. *Reprod Health Matters* 2001;9:108-17.
- Oakley A. A friend a day keeps the doctor away: social support and health. In: Oakley A (Ed). *Social Support and Motherhood*. Oxford, UK: Blackwell Publishers, 1992.
- Olsson P, Jansson L. Patterns in midwives' and expectant/new parents' ways of relating to each other in ante-and postnatal consultations. *Scand J Caring Sci* 2001;15:113-22.
- Ovretveit J. *Health Service Quality. An introduction to quality methods for health services*. Cambridge: University Press, 1992.
- Patton MQ. *Qualitative evaluation and research methods*. 2nd ed. London: Sage Publications, 1990.
- Polit DF, Beck CT. *Nursing research. Principles and Methods* (7th ed). Philadelphia: Lippincott Williams and Wilkins, 2004.
- Poudel KC, Jimba M, Okumuru J, Joshi AB, Wakai S. Migrants' risky sexual behaviours in India and at home in far western Nepal. *Trop Med Int Health* 2004;9:897-903.
- Rådestad I, Nordin C, Steineck G, Sjögren B. A comparison of women's memories of care during pregnancy, labour and delivery after stillbirth or live birth. *Midwifery* 1998;14:111-7.
- Ransjö-Arvidson AB, Christensson K, Darkwah G, Lungu F, Kakoma C, Chikamata D, Sterky G, Diwan V. Maternity care routines in a teaching hospital in Zambia. *East Afr Med J* 1989;66:427-36.
- Rubin G. Traffic in Women. In: Reiter R (Ed). *Towards Anthropology of Women*. London and New York: Monthly Review Press, 1975.
- Scholl TO, Hediger ML, Belsky DH. Prenatal care and Maternal health during adolescent pregnancy: a review and meta-analysis. *J Adolesc Health* 1994; 15: 444-56.
- Sevier R. Conducting focus research. *Journal of College Admissions* 1989;122:4-9.

- SHAPE, 2003. (Schools Health And Population Education). The Baseline Study for The Swaziland in-school Youth HIV and AIDS Prevention Programme. Ministry of Education, Ministry of Health and Social Welfare, Joint Center for Political Economic Studies, Briston-Myers Squibb Foundation, 2003.
- SNAP, 2005. (Swaziland National AIDS Programme). National Sentinel Surveillance. Swaziland National AIDS Programme, Mbabane, Swaziland 2005.
- Sosa R, Kennell J, Klaus M, Robertson S, Urrutia J. The effect of a supportive companion on perinatal problems, length of labor, and mother-infant interaction. *N Engl J Med* 1980;303:597-600.
- SPSS, 2002. (Statistical Package for Social Sciences). SPSS-X Users Manual. Version 10. New York: McGraw-Hill, 2002.
- Sundby J. Young people's sexual and reproductive health rights. *Best Pract Res Clin Obstet Gynaecol* 2006;20:355-68.
- Swaziland Rural Health Initiative. Bold solutions to Africa's health worker shortage. Physicians for Human Rights, 2006.
- Tierney KJ. Towards a critical sociology of risk. *Sociological Forum* 1999;14:215-42.
- Tjallinks J. Value clarification as a teaching method. *Nurs RSA* 1989; 4: 28-31.
- Tu X, Cui N, Lou C, Gao E. Do family-planning workers in China support provision of sexual and reproductive health services to unmarried young people? *Bull World Health Org*; Vol. 82, no.4, Geneva, 2004.
- UN, 2005. (United Nations). High-level meeting on AIDS uniting the world against AIDS. United National General Assembly. United Nation Declaration. New York: United Nations, 2006.
- UNAIDS, 1997. Impact of HIV and sexual education on the sexual behaviour of young people: A review update. Best Practice Collection. Geneva, 1997.
- UNAIDS, 2003. (Joint United Nations Programme on HIV/AIDS). AIDS Epidemic Update: December, 2003. Geneva: UNADS, 2003.
- UNESCO, 2006. Institute for statistics report. UNESCO Report, 2006.
- UNFPA, 1994. Investing in young people. National progress in implementing the ICPD Programme of Action 1994-2004. New York: United, 1994.
- UNFPA, 2003. UNFPA state of the world population 2003. Making 1 billion count: investing in adolescents health and rights. New York: UNFPA, 2003.
- UNICEF, 1994. Safe Motherhood in Swaziland. A Situation Analysis. Mbabane, Swaziland 1994.
- van Teijlingen E, Forrest K. The range of qualitative research methods in family planning and reproductive health care. *J Fam Plann Reprod Health Care* 2004;30:171-3.
- Varga CA. How gender roles influence sexual and reproductive health among South African adolescents. *Stud Fam Plann* 2003;34:160-72.
- Varkevisser C, Pathmanathan I. et al. Designing and conducting health systems research projects. International Development Research Centre, Ottawa. Health systems research training series, 1991;2 Part 1.
- Wamala SP, Lynch J. Gender and Social Inequities in Health: A Public Health Issue. Lund, Sweden: Studentlitteratur, 2002.

- Warenius LU, Faxelid EA, Chushimba PN, Musandu JO, Ong'any AA, Nissen EB-M. Nurse-midwives' attitudes towards adolescent sexual and reproductive health needs in Kenya and Zambia. *Reprod Health Matters* 2006;14:119-28.
- Whiteside A, Barnett T, George G, van Niekerk AA. Through a glass, darkly: data and uncertainty in the AIDS debate. *Developing World Bioeth* 2003;3:49-76.
- Whiteside A, Lee S. The "Free by 5" campaign for universal, free antiretroviral therapy. *PLoS Med* 2005;2:e227.
- WHO, 1993. *The Health of Young people: A challenge and a Promise*. Geneva: WHO, 1993.
- WHO, 1998. *Gender and Health: Technical Paper. Women's and Development. Family and Reproductive Health*. Geneva: WHO, 1998.
- WHO, 2000. *Making Pregnancy safer*. WHO Executive documents EB107/26 and EB107/26 Corr.1. Geneva: WHO, 2000.
- WHO, 2002. *Adolescent Friendly Health Services: An Agenda for Change*. Geneva.
- WHO, 2003a. *Preparing for adulthood: adolescent sexual and reproductive health*. Geneva.
- WHO, 2003b. *Reproductive Health of Adolescents and Unmarried Youth: Status, Perspectives and Strategies*. Anthology of Treatises of the International Symposium on Reproductive Health Research and Policy issues of Adolescents and unmarried young adults, Shanghai, People of Republic of China 19-21 October, 2003.
- WHO, 2004. *Unsafe Abortion: Global and Regional Estimates of Incidence of Unsafe Abortion and Associated Mortality in 2000*. 4th ed. Geneva: WHO, 2004.
- WHO, 2006. *The World Health Report 2006*. Geneva: WHO, 2006.
- WHO/UNAIDS, 2006. *Report*. Geneva, 2006.
- Wood K, Jewkes R. Blood blockages and scolding nurses: barriers to adolescent contraceptive use in South Africa. *Reprod Health Matters* 2006;14:109-18.
- World Bank Report. *Bank Group Annual Report, 2006*
- Zabin LS, Hirsch MB, Emerson MR, Raymond E. To whom do inner-city minors talk about their pregnancies? Adolescents' communication with parents and parent surrogates. *Fam Plann Perspect* 1992;24:148-54, 173.
- Zwane IT. Knowledge of sexually transmitted diseases and attitudes towards condom use among "At Risk". Adolescents in Swaziland. *UNISWA Research Journal of Agriculture, Science and Technology* 2000; 3:5-11.