

**INVESTIGATION INTO EFFECTIVENESS OF HEALTH
EDUCATION GIVEN TO PREGNANT WOMEN WITH
SEXUALLY TRANSMITTED INFECTIONS IN
DISTRICT 29 OF KZN**

By

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A Dissertation submitted in accordance with requirements for the M.Cur Degree

In the Department of Nursing Science, at University of Zululand

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January 2006

DECLARATION

I, Thokozile Happiness Mweni Declare that "Investigation into the effectiveness of health education to pregnant women with sexually transmitted infections in District 29 of KZN" is my own work and effort.

All sources used or quoted have been acknowledged by means of complete references.

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DEDICATION

This study is dedicated to the following:-

- My sons Nduduzo, Sabela and their little sister Samkelisiwe Mthembu for their Love, support and understanding as I deprived them of tender loving care whilst I was compiling the study.
- My mother and father, Agnet and Raymond Mweni for their encouragement, Love and Support, I had shoulder to lean on in times of difficulties.
- Not forgetting my brother Siphosenkosi and my sisters, Zanenhlanhla and Nombuso, they've been always there when I needed help throughout the course of study.

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- District manager who granted permission to collect data at KwaDukuza Clinic.
- My colleagues for their contributions where data was collected.
- Authors of books and articles that have been quoted.

ABSTRACT

This study is aimed at evaluating the effectiveness of health education given to pregnant women with sexually transmitted infections. A descriptive survey was conducted in the hospitals and clinics of District 29 KwaZulu Natal where the pregnant mothers received their health services.

One set of interview schedule was designed for pregnant mothers with sexually transmitted infections. The interview schedule consisted of open and closed ended questions. The total number of pregnant mothers was thirty. The respondents were systematically selected every third pregnant mother was chosen until a required number was reached.

The study revealed that health education given to pregnant women with sexually transmitted infections was not effective. There was an increase in the infection rate among those who were previously exposed to health education.

Based on the findings of the research it was recommended that new objectives, content, teaching strategies and evaluation strategies should be introduced in the present programmes used in order to reduce the incidence of sexually transmitted infections in pregnant women. It is also advisable that all health professionals should be involved in giving health education, and not only to professional nurses.

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CHAPTER 1

1.1 INTRODUCTION

Health education is an important method of spreading important information to the community. If it is conducted effectively by the health professional, it can contribute to the wealth of knowledge, especially in the prevention of different infectious diseases. This health education should be done in any primary health care centre for maximum effectiveness.

Pregnant women need health education in order to live healthy lives and prevent infections to their unborn babies. Pregnant women often become infected with sexually transmitted infections and as a result may lose their lives and those of their unborn babies. According to de Haan (2000:125) during pregnancy causative organisms can be transmitted to the foetus either transplacental or during delivery. These transmissions affect the foetus, resulting in conditions like congenital syphilis, conjunctivitis, encephalitis, HIV/AIDS and other sexually transmitted infections.

The number of pregnant women seen in the antenatal clinic infected with sexually transmitted diseases seem to be increasing. This may be due to many factors which prevail in the community. To mention a few, sexual freedom is common amongst married and unmarried couples, contributing to transmission of sexual diseases from one to another. Another factor is migration of men and women from rural to urban areas looking for jobs, promiscuity, prostitution and other factors. All these factors lead to an increase in sexual activity which may lead to sexually transmitted diseases.

1.2 BACKGROUND TO THE STUDY

Women during pregnancy are more susceptible to sexually transmitted infections due to their vulnerability. This infection may become serious if they do not attend clinics on time for early detection and treatment. They often start to attend the antenatal clinics late in pregnancy and some only come to the clinics when they are already in labour. The consequences maybe are life threatening, resulting in abortion, premature labour, still births, neonatal deaths and other problems (Sellers 1993:1004).

This indicates to a need for pregnant women to come early to the antenatal clinics for health education. Ritcher (2002:2) was right when saying that client education during the perinatal period becomes a bigger priority than client education after delivery and it is accepted as an essential part of maternal and child health care. Health education during the antenatal period helps pregnant women to be well informed about causes, danger signs, prevention and treatment of infection in order to prevent complications.

According to Shabalala and Kubheka(2004:1) one of the aims of antenatal education is to help mothers have a happy pregnancy, give birth to healthy babies, to have and eventually full-term delivery without any complication. On the other hand Kelbitsch (2001:38) commented that health education should be done during the antenatal period in order to prevent psychological problems like fear and anxiety and other physical problems that might occur to the pregnant mothers and their unborn babies. Shabalala and Kubheka (2004:39) further discovered that syphilis can infect the baby before birth, so pregnant mothers should be tested for this sexually transmitted infection and be treated before delivery to prevent infection to the baby, during delivery. The babies eyes may be infected if the mother has gonorrhoea.

It would then be interesting to find out how effective health education given to pregnant women with sexually transmitted infections by health professionals in

District 29 of KwaZulu-Natal, because failure to give this information might result to many complications.

1.3 STATEMENT OF THE PROBLEM

Pregnant women who are infected with sexually transmitted infections get medical treatment and health education during antenatal visits but most of them become reinfected. It is not exactly known what contributes to reinfection but when they become reinfected they are afraid to report to the health professionals. As a result they only come later to the antenatal clinics for treatment, by which time the condition may be worse.

Some pregnant women attend clinic only when they are in a critical condition and end up dying. It is important to find out if women are given health education on sexually transmitted infections in the clinics or not, and to find out if the education given was understood or not.

The researcher is interested to find out how effective health education given to pregnant women by health professionals during the antenatal period is.

1.4 OBJECTIVES OF THE STUDY

1. To determine how effective the health education given to pregnant women with sexually transmitted infections is.
2. To identify factors contributing to failure or effectiveness of health education given to pregnant women with sexually transmitted infections.
3. To make recommendations to improve health education information given to pregnant women with sexually transmitted infections.

1.5 RESEARCH QUESTIONS

How effective is health education, given to pregnant women on sexually transmitted infections?

If not effective what are the contributory factors?

1.6 SIGNIFICANCE OF THE STUDY

To emphasize the importance of health education given to pregnant women during the antenatal period, so as to detect early and treat appropriately high-risk conditions that could endanger the health of the mother and baby.

The study is significant in improving the knowledge that women have about the prevention of sexually transmitted infections.

1.7 MOTIVATION FOR THE STUDY

The researcher is a midwife working in the antenatal clinic, and has experienced many problems with pregnant women attending clinic, with recurrent sexually transmitted infections. These pregnant women sometimes not comply with the treatment prescribed by the doctors, and may end up with complications.

1.8 ASSUMPTION

The researcher assumes that women, who have been taught during antenatal care about the prevention of sexually transmitted infections, deliver healthy and live babies.

It is assumed that mothers and newborn babies will not develop complications if they receive prompt health education and treatment sexually transmitted infections at the clinics, during the antenatal period.

1.9 DEFINITION OF TERMS

a. Pregnant Women

An adult female who has a child, developing in her uterus
(Oxford Dictionary 1993:26)

b. Antenatal Care

It is the care that is given or rendered to a pregnant woman throughout pregnancy to the time she goes into labour
(Bernet & Brown 1996:124)

c. Health Education

It is an active process which is directed at changing peoples attitudes and influencing their behavior in health related matters (deHaan 2001:17)

d. Sexually Transmitted Diseases

Are infections that are usually associated with intimate sexual contact, often referred to as 'Venereal' diseases.
(Lewis and Collier, 1987:1369).

e. Abortion

Is the interruption of pregnancy before the twenty sixth week. After twenty six weeks the foetus is said to be viable (Sellers,1993:1004).

1.10 CONCLUSION

In this Chapter 1, the introduction, background of the study, problem statement, objectives of the study, research questions, significance of and, motivation of the study, assumptions and definitions are discussed. In the next Chapter 2 literature review and theoretical framework will be discussed.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

The previous studies undertaken on sexually transmitted infections, have shown that this is a major public health problem in South Africa. Ballard and Neilson (2000:1) states that about half a million patients in South Africa alone seek treatment for sexually transmitted infections each year at public sector facilities, while many more are seen in private practice and occupational health services.

The type of venereal diseases according to Health Act No.63 of 1977 are classified as: syphilis, gonorrhoea, genital warts, genital herpes and vaginitis. All these infections are cured by medical therapy except with the most recent one called Human Immunodeficiency Virus (HIV/AIDS), which is not cured. Sellers (1993:1070) emphasized that in view of the continuing high prevalence of sexually transmitted infections, it is important that all midwives should have a basic understanding of various conditions in order to provide a high standard of care to pregnant women.

Kessner (1991:173) indicates that venereal diseases are treated free of charge in South Africa as stated in the legislation. People are expected to undergo treatment voluntarily at special clinics or go to district surgeons for treatment. Others believe that sexually transmitted infections can be treated by the use of traditional herbs.

As midwives we believe that health care is a basic human right, according to this pregnant women and their partners should have equal access to health resources and health care.

2.2 EPIDEMIOLOGY

For more clarity it is important to discuss the incidence of sexually transmitted infections. According to Dangor and Monedi(2003:3) sexually transmitted infections affect both males and females. The males when infected seek treatment earlier because they quickly show signs and symptoms and they experience severe pain. On the other side the females delay treatment because they show signs of infection at a later stage and sometimes are asymptomatic (they don't show signs). They usually get treatment when they present themselves to different health care settings, not necessarily to sexually transmitted infection clinics, for instance when they start attending antenatal care and family planning because the routine blood tests for widal (W.R) are done for all pregnant women.

Sexually transmitted infections are common in young sexually active persons between the ages of 16-25 years. They are also common in children born with congenital infections, because they contract infections during delivery from their mothers who were not treated during the antenatal period (Dangor and Monedi 2003:4).

Other children are infected after being sexually abused by the adults who are infected. These diseases are also common among commercial sex workers, single sex hostel dwellers, and long distance truck drivers (Dangor and Monedi 2003:4).

2.3 CLASSIFICATION OF SEXUALLY TRANSMITTED INFECTIONS

It is important for the midwives to consider classification when planning for health education programs of sexually transmitted infections. This will enhance effectiveness of health education because they will be able to deal with each type accordingly.

Dangor and Monedi (2003:1) indicate that classification of sexually transmitted infections is based on the common clinical presentation, especially in the early stage of disease, which are:-

- Those that produce genital discharge
- Those that cause ulcerative disease and
- Those that do not cause genital lesions and
- Sexually transmitted infections in children.

2.3.1 GENITAL DISCHARGES

The discharge may be from the vagina or cervix. The discharge coming from the vagina may be due to candida albicans, trichomonas, vaginitis and bacterial vaginitis. The discharge coming from the cervix may be due to Neisseria gonorhoea and chlamydia trachomonatis (D-K Strains).

2.3.2 GENITAL ULCER GROUP

There is formation of ulcers or sores on the genitalia and these may be due to the following: -

- Treponema palladium which causes primary lesion in the form of chancre in syphilis.
- Haemophilus ducreye which causes “soft sore” chancre in chanchroid.

- Chlamydial trachomonatis (L1-3) which causes Lymphogranuloma venereum (LGV).
- Calymmatobacterium granulomatis which causes granuloma inguinale.
- Herpes simplex virus (HSV) type 2 which causes genital herpes.

2.3.3 OTHER PATHOGENS

These pathogens do not cause genital lesions.

- Human Immunodeficiency Virus (HIV) which causes AIDS.
- Human Papilloma Virus (HPV), which causes genital warts, some types are associated with cervical cancer.
- Mycoplasma hominis, which causes pelvic inflammatory diseases, and bacterial vaginosis
- Molluscum contagiosum caused by pox virus.
- Pubic lice caused by crab louse (phthirus pubis).
- Scabies (itch) caused by sarcoptes scabiei.

2.3.4 OTHER PRESENTATIONS

The sexually transmitted infections in children. These infections may be acquired from the mother by vertical transmission in utero or at birth. The following infections may also be due to sexual abuse of children:-

Gonorrhoea, syphilis, chlamydial infections, trichomoniasis, herpes in the genitals and condylomata accuminata (HPV).

2.4 MODE OF SPREAD OF SEXUALLY TRANSMITTED INFECTIONS

It is important for the midwives to give health education about mode of spread of sexually transmitted infections to pregnant women so that they clearly understand how, to prevent their occurrence.

Sellers (1993:1072) agrees with Lewis and Collier (1987:1369) that sexually transmitted infections are spread through:-

- Direct physical contact with an infected host, usually during sexual intercourse or activity.
- Diseases may spread by direct tissue extension to the uterus, fallopian tubes and ovaries.
- Contact with an infected lesion.
- Through blood transfusion in case of contaminated blood.
- Transplacental (congenital), the neonate can develop a gonococcal infection after passage through an infected birth canal.
- A dentist's fingers and inoculations.

2.5 CONTRIBUTING FACTORS TO SEXUALLY TRANSMITTED INFECTIONS

Literature by Dehaan (2000:124), Kessner (1991:171) and Sellers (1993:1070) agree with each other about the following contributing factors of sexually transmitted infections:

- Migration of young people from the rural areas to the cities loosening family ties, and lessens the power of family to control the behavior of its members. Kessner (1991:172) emphasizes that people moving to urban areas usually do not carry venereal diseases with them, but they contract the infections in urban

areas, then when they go back to their sexual partners they infect them. This is how sexually transmitted infections spread.

- The increase in premarital and extramarital sex in both partners. This greater sexual freedom has come about as a result of changes in the norms, and values of modern societies and the weakening of social control.
- Mass media directly and indirectly promote the products which are designed to make an individual appear sexually desirable. Articles and advertisements promote the idea that life is not worth living without sex, and that people who are not sexually active are not quite normal. This results in the alteration of values in young people, lowered moral standards, free sexual relations at earlier ages and increased promiscuity.
- An increase in sexual freedom today, particularly in urban industrial societies. This leads to an increase in sexual activity in both homosexual and heterosexual people, resulting in increased mobility and in the population group.
- Changing customs, traditions and beliefs of various population groups with differences in knowledge, beliefs and values of various people, together with lack of health education.
- Sellers (1993:1074) states that unemployment and prostitution rates, increases the number of people infected by sexually transmitted infections. De Haan (2001:125) indicates that newer methods of contraception have reduced the risks of pregnancy but they do not protect individuals against infections as the condom does, and this has contributed to an increase in promiscuity and sexually transmitted infections.

- According to Lewis and Collier (1987:1370) oral contraceptives cause the secretions of the cervix and vagina to become more alkaline, this change produces a more favourable environment for the growth of the venereal disease organisms at those sites.

- The women who take oral contraceptives have a low risk of pelvic inflammatory disease due to the increase of cervical mucus which acts as a barrier to bacteria, whilst the women who use intrauterine (device) method of contraception have increased risk of gonococcal salphingitis and pelvic inflammatory diseases. A condom is the best method of contraception because it prevents transmission of bacteria and viruses.

- The increased leisure time, inexpensive travel and urbanisation have brought people of varying cultural backgrounds and value systems together.

- Code of behaviour from new forms of sexual conduct.

- Earlier reproductive maturity and expanded longevity have also resulted in a longer sexual life span.

- The increase in the total population has resulted in an increase in the number of susceptible hosts.

- Kessner (1991:172) emphasizes that young people are especially infected because they are more active socially, and the sexually transmitted infection rates are increasing faster among them in the population as a whole. Tradition and patterns of life that have been broken down have not been replaced by new ones, and parental control and guidance are less.

- Measures aimed at education of the public regarding venereal disease have been relaxed so that ignorance now plays a large role in contributing to the increase of venereal diseases.

Most of the above contributing factors are not so easy to avoid because they involve an individuals' personal behaviour, that is why it is important that the midwives should provide extensive health education on this topic.

2.6 SIGNS AND SYMPTOMS OF SEXUALLY TRANSMITTED INFECTIONS

The signs and symptoms of different sexually transmitted infections should be taught to the mothers so that they are able to detect them early and be treated promptly for prevention of complications.

Myles (1985:275) and Dangor and Monedi (2003:6) agreed with the following signs and symptoms:-

2.6.1 CANDIDIASIS

Candidiasis is also known as thrush, women will present with vulval pruritis which is exacerbated by warmth. There is a vaginal discharge which is white and cottage cheese-like in consistency, and its removal from the vaginal wall leaves a raw area, alternatively thin, watery or purulent. Women experience difficulty in passing urine (dysuria).

2.6.2 TRICHOMONIASIS

Infections of a woman may result in:

- Vaginal discharge which can be offensive with often fishy smelling, thin and watery or yellow-green and frothy discharge.
- There is vulval pruritis, inflammation and local irritation of the skin around the inner thighs, vulval area and perineum and
- Severe dysuria and cystitis can occur.

2.6.3 BACTERIAL VAGINOSIS

Bacterial vaginosis in women may give rise to cervicitis, which is occasional bleeding from the cervix, especially during pregnancy. The vagina may be very inflamed and known as a “strawberry vagina”.

Severe vaginitis may give rise to a yellow discharge and chronic abdominal pain.

The sexual partner is often asymptomatic and it must be remembered that some women (about 10%) also remain asymptomatic.

2.6.4 GENITAL HERPES

Sellers (1993:1083) states the following signs:-

- Itching and burning followed by small rounded transient vesicles. These burst to form single, or multiple, red, painful shallow erosions, which eventually form shallow non-indurated tender ulcers which can be very painful. They usually heal within four weeks, with an average of 10-14 days.
- Painful regional lymphadenopathy is also present
- Leucorrhoea, which can become a purulent vaginal discharge.
- Dysurea and retention of urine is also common.
- The lesions are highly infectious and there can be rectal and laryngeal involvement as well. The virus may persist in the vagina for up to three months.
- If the woman understands the above symptoms and can report the signs she is experiencing earlier to the health care workers she can get treatment before complications occur.

2.6.5 GENITAL WARTS

According to Sellers (1993:1085) these are red-pink and pinhead in size. The lesions become enlarged and produce rapidly, become pedunculated and coalesce to form, firstly, mulberry-like (in appearance) growths in single, or multiple clusters and eventually large cauliflower-like masses. These may become malignant.

Bernet & Brown (1996:285) on the other hand emphasizes that secondary infections can result in offensive odour and discharge these warts are often painless and pass unnoticed. It is important for pregnant women to get enough information through health education about the symptoms of genital warts, so that they report them early to the physician who may plan for caesarian section delivery.

2.6.6 SYPHILIS

According to Beicher and Mackay (1988:238) the following signs are noticed in stages in a patient with syphilis:

- Primary stage consists of chancre, a hard papule which breaks into painless indurated ulcer.
- Secondary stage which is characterized by a generalised, macular, copper coloured skin rash, ulceration of mucous surfaces, lymphadenopathy and periostitis.
- Flat papillary lesions may occur in the vulva.

2.6.7 GONORRHOEA

Beischer and Mackay (1988:239) further state the following signs of gonorrhoea.

- Purulent discharge from the Bartholin's gland, urethra and cervix.
- Purulent discharge may also be from the pharynx or rectum of sexual proclivities extended in those directions.

- Dysuria due to urethritis may occur.

Bernet & Brown (1996:286) states that infection of Skere's tubules or Bartholin's glands, abscess formation and pain on walking may result. Pelvic inflammatory disease even after recovery, chronic abdominal pain and a predisposition to infertility or to tubal pregnancy may remain.

2.6.8 HUMAN IMMUNODEFICIENCY VIRUS HIV/AIDS

Myles (1996:282) comments about following signs of HIV/AIDS.

- Persistent generalised lymphadenopathy (PGL) in which the lymph glands of the neck, armpits and groin have remained swollen for a minimum of 3 months.
- Others, in addition to having lymphadenopathy, develop recurrent night sweats, persistent fever, diarrhoea or weight loss of more than 10 pounds in 2 months. This is called AIDS-related complex and can include severe forms of herpes simplex, shingles or skin candidiasis.
- Acquired Immune Deficiency syndrome can take from 6 months to 6 years to develop after initial infection with the virus. It is characterized by opportunistic infections such as: pneumocystic, candidiasis, cryptosporidiosis, cytomegalovirus and Kaposi's sarcoma.

2.7 DIAGNOSIS OF SEXUALLY TRANSMITTED INFECTION

2.7.1 PATHOLOGICAL VAGINAL DISCHARGES

According to Bernet & Brown (1996:276) diagnosis of vaginal discharges can be confirmed by examination of a drop of vaginal fluid mixed with saline. Gram-

positive spores and mycelia can be detected by microscope. If so a swab should be sent for culture to the laboratory.

2.7.2 GONORRHOEA

Bernet & Brown (1996:286) further states the following diagnostic procedure for gonorrhoea:-

In women, swabs are taken from the urethral meatus (urine not having been passed for the previous 2 hours), the endocervix and rectum. Even in the absence of rectal intercourse, it can be the only positive site. Throat swabs to be cultured if there is a history of orogenital contact. Staining renders diplococci visible in pus cells, diagnosis confirmed by culture and charcoal swabs. No blood tests.

2.7.3 SYPHILIS

Bernet & Brown (1996:286) states that diagnosis of syphilis is done by clinical history and examination of the patient.

Dark-brown microscope discharge from skin or mucous membrane lesion. This reveals the thin and spiral bacterium.

Serology tests, positive results are confirmed by the fluorescent treponemal antibody tests.

2.7.4 HERPES SIMPLEX VIRUS

Sellers (1993:1083) agrees with Bernet & Brown (1996:279) that diagnosis of the herpes simplex virus is done by history taking, clinical examination, examination of fluid from the vesicles by electron microscope and tissue culture.

2.7.5 GENITAL WARTS

Sellers (1993:1085) states that diagnosis of genital warts is based on clinical appearance as culture is not possible.

Warts must be distinguished from condylomata lata of secondary syphilis.

Warts flourish in presence of a discharge.

Diagnosis can be confirmed by dark field microscopy, colposcopy; papsmear and biopsy can be done.

2.7.6 HUMAN IMMUNO DEFICIENCY VIRUS AND AIDS

According to Lewis and Collier (1987: 1378) diagnosis of AIDS includes a careful history and physical examination and an evaluation of the client's immune system. Appropriate tests for the presenting symptoms of opportunistic disease should also be done.

Blood tests for HIV are done to confirm positive results.

2.8 COMPLICATIONS OF SEXUALLY TRANSMITTED INFECTIONS TO PREGNANT WOMEN AND NEONATES

The midwives must give health education about complications of sexually transmitted infections to pregnant women during the antenatal period, because at that time these can be prevented by using preventive measures as taught. If women are already infected, they should report to the health care workers for immediate treatment.

The following information is given to mothers:

According to Harrison, Keet and Shore (1999:96) maternal infections such as syphilis can be transmitted through the bloodstream to the fetus. This is called transplacental

or antenatal infection. It is associated with morbidity and mortality in the fetus and the newborn. De Haan (2001:125) emphasizes that consequences of untreated sexually transmitted infections are abortions, premature labours, stillbirths and neonatal deaths. The causative organism can be transmitted to the fetus either transplacentally or during delivery and results in the following conditions:-

- Congenital syphilis if not treated and can result in neonatal death.
- Conjunctivitis if the mother was suffering from gonorrhoea or chlamydial infections which were not treated, resulting in blindness of the newborn baby.
- Encephalitis if mother is suffering from genital herpes.
- Hepatitis B Virus and acquired immune deficiency syndrome if mother was infected and many other conditions.
- Pelvic inflammation and inflammation of the fallopian tubes which may eventually result in permanent sterility and ectopic pregnancy.

Lewis and Collier (1987: 1071) agreed with the above information by saying that, if the newborn baby is not treated it will end up with permanent blindness and the pregnant woman with pelvic inflammatory disease, ectopic pregnancy and infertility.

Ballard and Neilson (2000: 3) on the other hand state that local complications of sexually transmitted infections in man include epididymitis, urethral stricture and acute prostatitis and in women results in Bartholins abscess and salpingitis. General complications are relatively infrequent; disseminated gonococcal infection can occur in both sexes. The main features may be associated with haemorrhagic or necrotic rash, and fever.

Gonococcal arthritis is more commonly found among women than men. Vlok (1996:584) emphasized that gonorrhoea infection in women can be chronic and cause ophthalmia neonatorum, an infection of the eyes in newborn babies (acquired during

birth) which leads to blindness. The consequence of gonorrhoea infections infertility in both sexes.

2.9 PRIMARY PREVENTION OF SEXUALLY TRANSMITTED INFECTIONS THROUGH HEALTH EDUCATION

This is when the client is not infected by the disease. It is the duty of the health care workers, to give health education to pregnant women during antenatal period in order to prevent the occurrence of the infections, because through information gained they can prevent sexually transmitted infections.

According to Ballard and Neilsen (2000:2) practitioners responsible for treating patients with sexually transmitted infections, should have resources available for educating patients about risk assessment and behavioural choices. It is also important that all patients are counselled about methods of lowering risks of acquiring sexually transmitted infections, like abstinence, careful selection of partners, use of condoms and periodic examinations.

Condoms should be made available in any facility providing clinical sexual transmitted infection services. Instructions about the proper use should be provided. Although it is recognised that condoms do not provide absolute protection from the infection, if it is properly used, it can reduce the risk of infection.

De Haan (2000:125) states that long term health education aimed at increasing public awareness of dangers associated with promiscuous sexual intercourse should start with school children.

It is the duty of the midwives at antenatal clinics to continue giving health education about prevention of sexually transmitted infections to pregnant women, so that they are able to report promptly to health care workers if they are infected. To give factual

information about the infection which may occur, how they are transmitted, the early signs and symptoms and the complications which can occur.

The importance of consulting a doctor or the health care worker as soon as infection is suspected should be stressed. To discourage deviant sexual practices and dangers associated with use of multiple partners and encourage permanent associations such as marriage. Early diagnosis and effective treatment are essential if these infections are to be controlled, to ensure that all those suffering from the disease are treated together with their contacts. This is not easy because there is still a social stigma attached to venereal disease and people may be reluctant to present themselves for treatment. It is therefore necessary to stress the confidentiality of treatment.

Early diagnosis and treatment is difficult in conditions like gonorrhoea, because large numbers of people who are suffering from it are asymptomatic, so the importance of using condoms as preventive measures must be emphasized by the midwives.

Primary prevention also includes measures which will promote a stable family life, the provision of accommodation for married workers and their families, the abolition of the migrant labour system and removal of impediments to marriage.

According to Kessner (1991:142) people must be advised that they can be re-infected with sexually transmitted infections after being cured because there is no immunity. It should also be emphasized that people must avoid casual sexual relationships, but if they insist in continuing with loose casual relations to use "condoms" as a contraceptive method. This gives a certain amount of protection against the infections.

It is also advisable to wash the genitals thoroughly with soap and water after casual intercourse. To reassure people that sexually transmitted infection is not a sin or crime but a disease and can be treated apart from AIDS.

Motjuwadi (2003:73) indicates that sexually transmitted infections are completely preventable. The most obvious and most certain way of prevention is abstinence from sexual intercourse. He further emphasized that prevention is better than cure, this applies also to sexually transmitted infections. When it is not an option, sticking to one partner is another method. It is important to use condoms as a strategy against the spread of human immuno virus.

Ackerman and de Klerk (2003:41) on the other hand revealed that the use of condoms has become associated with mistrust and they are often not used by other people because they imply mistrust.

The use of condoms goes against the ideal culture of fidelity. To use a condom is to admit that the expectations of ideal culture have been breached. Requests for condom use may be interpreted as not trusting your partner and viewed as an act of hostility that calls one's partners health and morals in question. Condom sex seen as a demonstration of mistrust in one's sexual partners. The midwives when giving health education must encourage the use of condoms and must emphasize that the use of condoms does not mean that you don't trust your partner but as a means of preventing the occurrence of sexually transmitted infections, which can lead to complications to the mother and the baby.

Peltzer (2002:19) commented that condoms are an integral part of sexually transmitted diseases and HIV/AIDS prevention and their use has increased significantly over the past decade. Correct use of condoms reduces the risk of human immuno virus transmission by almost 100 percent. In South Africa, aversion to condom use is the dominant theme, although explanations for this vary. Cultural beliefs are also a barrier to condom use in South Africa where many people consider it essential that the sperm of the man actually enters the woman.

Vlok (1996:583) states that a condom can be used for prevention of pregnancy and prevention of the transmission of sexually transmitted infections. The application of and removal of condoms should be done on an erect penis. The condom is put on before any genital contact occurs between the penis and participating partner, to prevent exposure to infectious fluids.

The following instructions should be given to the pregnant women as to how the condom is applied:-

The tip of the condom is held while the latter is rolled on the shaft of the penis, leaving enough space to collect the semen in the tip. After ejaculation the penis is withdrawn while holding on to the base of the condom to prevent it slipping off and spilling its contents. It is the duty of midwives to teach the pregnant women about the correct use of the condom, so that they will be able to teach their partners who have never used condoms before. For effective education the midwife must demonstrate to the pregnant woman as to how to put on the condom on the model of the penis, to demonstrate also how to take it off after ejaculation, without contamination and how to discard it as indicated above. This knowledge will encourage the women to use condoms. Midwives must also discourage the cultural beliefs that use of condoms is acceptable because sperm does not enter the woman but the plastic.

Smeltz and Baire (1992:1204) state that to prevent the spread of sexually transmitted infections arrangements for attending local genito-urinary clinics should be well advertised both within and outside the hospital, and patients should be encouraged to use the expertise and confidentiality this service provides.

Most patients require counselling about transmission and features of these diseases as well as advice about the treatment, follow-up and importance of referring sexual contacts for treatment. The health services should be equipped to diagnose and treat sexually transmitted infections in order to reduce their spread.

PREVENTION OF MOTHER TO CHILD TRANSMISSION (PMTCT)

According to Lesole (2002:30) the national Department of Health adopted the model in September 2001 for PMTCT/infant feeding course to enable health care workers to deal with PMTCT issues in general and infant feeding in particular in dealing with pregnant women who are HIV positive during pregnancy and also how they should feed their babies after delivery. The following procedures were suggested by this model:

- Pregnant women are prepared by health care workers including the lay counsellors, about how and when to take antiretroviral drugs (Nevirapine tablets). Nevirapine 200mg tablet is given to the pregnant women who are HIV positive at 28 weeks of gestation.
- Women are informed about keeping the tablet safely and to drink it only at the onset of labour pains, thus giving enough time for the tablet to be absorbed in the blood system, which takes about 2 hours.
- Nevirapine prevents the transmission of the virus from the infected mother to the newborn baby during delivery. Within 72 hours after delivery the baby is given Nevirapine syrup, 0.6ml per mouth, if the baby's weight is about 2.5kg. If the baby's weight is less than 2.5 kg, Nevirapine syrup 0.2 ml is given per mouth.
- If women did not take the Nevirapine tablet during labour, the newborn baby is given Nevirapine syrup, two doses in 72 hours.

Pregnant women are encouraged to exclusively breastfeed for 6 months. If the baby is fed on formula, it must also be for 6 months without mixfeeding because that can cause transmission of the virus from the mother to the child (Lesole 2002:30).

PREVENTION OF SPREAD OF INFECTION AND INFECTIOUS DISEASES

Sellers (1993:1096) commented about the following preventive measures for prevention of the spread of infection and infectious diseases.

- To educate the public throughout all levels of society and by all health care workers. This will alleviate fear, dispel ignorance, expose myths and promote awareness in the community.
- Health care workers must ensure that they are fully conversant with the cause of all diseases, as well as the management and treatment.
- Health care workers should teach patients to be aware of their own attitudes and body language. The patients require empathy, understanding and reassurance as they may be innocent victims. Nursing personnel are not there to judge, but to provide a caring environment in which to nurse the patient.
- The patient must understand the importance of adequate treatment in order to comply with the treatment. Women must, therefore, be made to fully understand their conditions to enable them to comply with instructions and treatment. Intensive counseling is required. The midwife must know and understand attitudes, customs, and traditions of the community she serves.

HEALTH EDUCATION

Another method of primary prevention of sexually transmitted infections is to give health education to pregnant mothers during the ante natal period.

It is important to discuss briefly health education as a method used in the prevention of sexually transmitted infections. Goddard (1986:12) cited in Shabalala & Kubheka (2004:7) mentioned the following aims of health education:

- To build up confidence in the pregnant woman and through her ability to trust those who are caring for her.

- To help her to give birth to a healthy baby, to have a happy pregnancy with normal full-term delivery of a live and healthy infant.
- To promote physical and mental preparedness for the birth process and the achievement of a satisfying birth experience.
- To provide an unhurried environment in which members of the group can share thoughts, fears, joys and problems and work towards an adjustment of lifestyle.
- To lay the foundations for future acceptance and proper use of preventive and promotive health services.

Each pregnant mother with sexually transmitted infections should understand fully the importance of the above mentioned aims.

IMPORTANCE OF HEALTH EDUCATION

Kelbitsch (2001:38) stated that health education helps to alleviate fear and anxiety of the unknown, thereby helping pregnant mothers with sexually transmitted infections go into labour with confidence and positive attitudes. This health education should be given properly, identifying all the signs and symptoms of the disease for early detection and treatment in order to prevent complications during birth.

TOPICS THAT CAN BE PRESENTED DURING THE ANTENATAL PERIOD BY HEALTH PROFESSIONALS ABOUT SEXUALLY TRANSMITTED INFECTIONS

The Department of Health (2003:49) indicated that pregnant women should be taught to check themselves if genital discharges are there or not and to go to the clinic immediately for check-up because these can infect the eyes of the baby at delivery, especially if due to syphilis, for effective treatment.

Shabalala & Kubheka (2004:50) discovered that 90% of pregnant women were taught about HIV/AIDS during the antenatal period. Women were encouraged to accept blood tests for diagnosis, signs and symptoms, to go for treatment and to understand that it can affect an unborn baby.

Several authors identified difference that can be offered to pregnant mothers during health education for better understanding. These are:-

Genital warts, genital herpes, gonorrhoea trichomoniasis, bacterial vaginosis and others (Ballard and Neilsen 2000:67, Bernet & Brown 1996:286, van der Berg and Viljoen 1998: 329 and Sellers 1993:1079). Proper knowledge of the above common conditions can improve the present state of the problem of sexually transmitted infections because women will be well equipped as to how to deal with them when they occur.

TEACHING METHODS USED IN HEALTH EDUCATION

Ritcher (2002:6) cited by Shabalala & Kubheka (2004:40) recommends the use of the following methods as being suitable to teach mothers during the perinatal period about sexually transmitted infections.

- Use of posters for different topics, for example breastfeeding technique; effects of sexually transmitted infections to pregnant women.
- Video inserts and slides.
- Group discussion, because it encourages sharing of ideas and personal experiences.
- Short lectures in order to give more information.
- Models, for example penis and condom, to show how to put it on and to remove it.
- Practical activities, like personal hygiene.
- Role-playing is also very important so as to imitate the procedures.

For effective education the health care workers use different teaching methods because the use of one method especially lectures can be boring and pregnant women may lose concentration.

2.10 SECONDARY PREVENTION AND MANAGEMENT OF SITs THROUGH HEALTH EDUCATION

This is when the pregnant woman is infected by sexually transmitted infections. General nursing care is needed, but hospitalization is not usually required, only health education about the prevention of complications and medication.

Sellers (1993:1067) states that it is important for midwives to ensure that the client understands the following instructions when taking medication:-

1. Education as regards personal hygiene is important. The patient must avoid coitus for seven days after taking her medication. If she complies with this request, it will not be necessary to treat her partner.

2. The pregnant woman is advised to avoid the intake of alcohol during treatment for the first three days after completion of the treatment. She is also advised about taking treatment like Flagyl which causes an unpleasant taste in the mouth, with the suggestion of taking it at night to avoid dizziness and gastrointestinal disturbances.

3. Where failure of treatment due to reinfection, wrong diagnosis of first infection, and failed absorption of the drug like Flagyl, the women will require alternate means administering it rectally.

2.10.1 MANAGEMENT OF DIFFERENT SEXUALLY TRANSMITTED DISEASES

It is important to note that treatment of these diseases is different depending on the consative organisms.

2.10.1.1 TREATMENT OF VAGINAL DISCHARGE

Sellers (1993:1068) agrees with Beischer and Mackay (1988:240) about the following treatment of vaginal discharge:

- Metronidazole 400mg tablet twice after meals for 5 days.
- During the first trimester of pregnancy to take Chotrimazole 100mg pessary each night for 6 nights with 1% Chrotrimazole cream to be applied to the vulva and perineum 2 or 3 times a day.

2.10.1.2 MANAGEMENT OF SYPHILIS IN PREGNANCY

Pregnant women should be given enough knowledge about treatment of syphilis because of its fatality to the mother and an unborn baby. Vlok (1996:378) indicates that in the absence of vaccines, early diagnosis and appropriate treatment are the most important preventive measure of syphilis. It is important for every community to recognize the existence of prostitution, and to require them to be examined and treated for venereal diseases. It is also important to trace the sexual partners of infected pregnant women in order to prevent re-infection. Contacts should be diagnosed and undiagnosed contacts exposed to infection of syphilis within the preceding 3 months should be treated for early syphilis.

According to Ballard and Neilsen (2000:24) pregnant women should be treated with Penicillin which is appropriate for the stage of syphilis diagnosis. Tetracycline and

tetracycline analogues are contra-indicated in pregnancy. Erythromycin therapy is associated with an unacceptably high rate of treatment failure in the fetus.

The pregnant woman who is allergic to penicillin should be skin tested and subsequently treated with penicillin (if the test is negative) or referred for desensitisation if the test is positive. This method is recommended by centres for disease control. The procedure is done in the hospital for about 4 hours, after which the first therapeutic dose of penicillin may be given (Vlok 1996:376).

FURTHER TREATMENT OF SYPHILIS

Benzathine 2.4ml intramuscular x3 doses x 3 weeks is given for latent disease. For primary disease where there is an ulcer or secondary disease where a condylomata has occurred only a single dose is required.

It is important for the midwives to teach pregnant women about the importance of taking medication as ordered by the doctor and the effects of not taking medication, like reinfection.

2.10.13 MANAGEMENT OF GONORRHOEA IN PREGNANCY

It is important for the midwives to teach pregnant women about the treatment of gonorrhoea and the important of compliance. Ballard and Neilsen (2000:6) state that pregnant women with gonococcal infections should be treated with the following:-

Ceftriaxone 125mg /Imi as a single dose

or

Spectinomycin 2g /mg stat

plus

Erythromycin base or stearate 500mg qid for 7 days.

Bernet & Brown (1996:286) emphasizes that smears and cultures are repeated until there have been two negative tests and intercourse should be avoided. After 3 months tests for syphilis and gonorrhoea should be performed, in case persistent infection has been masked by inadequate therapy.

According to Sellers (1993:1079) treatment of gonorrhoea is:

Aqueous procaine penicillin G 4.8 million units imi stat. That is 2.4 million unit into each buttock. This is preceded by oral probenecid 1g.

Probenecid prevents renal excretion of penicillin therapy allowing adequate treatment of the condition.

According to Ballard and Neilsen (2000:61) there is

TREATMENT OPTION B for gonorrhoea which comprises the following:-

Ciprofloxacin 500mg per mouth stat

Or

Ofloxacin 400mg per mouth stat

Or

*Ceftriaxone 125mg intramuscular stat

or

*Spectinomycin 2g im stat

The treatment options above are to be tried always when there is no improvement in the treatment of gonorrhoea.

2.10.1.4 HEALTH EDUCATION GIVEN BY MIDWIVES TO PREGNANT MOTHERS ON MANAGEMENT OF GENITAL HERPES IN PREGNANCY

Van der Berg and Viljoen (1998:329) agree with Sellers (1993:1084) about health education that should be given on management of genital herpes which is:

- Education of mothers with regard to the cause of the disease and the risks involved.
- Personal hygiene is important, keeping the lesion clean and dry and avoidance of sexual intercourse until the lesions have disappeared.
- Encourage the patient not to wear tight fitting underwear because they can disturb the healing process.
- Patient needs plenty of rest for quick recovery.
- Antiviral medication may be applied to the lesion to lessen the severity of the disease.
- Use of condoms during intercourse (particularly during the acute phase) and discourage oral sex. These should be emphasized.
- It is helpful to expose the lesions to the air for some periods during the day.
- Use of mild antiseptic solutions for cleaning lesions should be encouraged.
- Advise patient to have a PAP smear every six months for early detection of any problem.
- The washing of hands after going to the toilet and after treating the lesions is important to prevent cross-infection.
- Screening for other venereal diseases and treatment of the sexual partner is important to prevent reinfection.
- Help, advice, reassurance, support and understanding must be given to the patient at all times, because she will often feel embarrassed, guilty and anxious at this time and the midwife must be aware of this.

- If there are active lesions, a non-immune partner may be infected. If the partner has no history of genital herpes, a condom should be used.

2.10.1.5 MANAGEMENT OF GENITAL WARTS

According to Ballard and Neilsen (2000:42) caesarian section is done as a method of delivery to avoid transmission of the virus from the mother to the newborn baby during delivery. Podophyllin is widely used in the treatment of congenital warts, its use is contra-indicated during pregnancy and in all cases of cervical condylomata.

TREATMENT OF GENITAL WARTS

Ballard and Neilsen recommend the following treatment for genital warts:-

Podophyllotoxin E solution is applied to clean dry lesions by cotton wool twice daily for 3 days. This process should be repeated for 7 days for effective treatment.

Or

Imiquimod 5% cream should be applied direct to the warts with fingers at bedtime, 3 times a week and left overnight for up to 16 weeks. The treatment should be washed the next morning after each application. Warts may clear up in 8-10 weeks or even sooner.

2.10.1.6 MANAGEMENT OF HUMAN IMMUNODEFICIENCY VIRUS/AIDS

Health education by health care workers is given regularly to pregnant women attending antenatal clinic. Women are encouraged to use condoms in order to prevent the increase of the viral load in the blood stream. It is the responsibility of the midwife to teach mothers about the importance of a nutritious diet, in order to remain healthy and to advise pregnant women about seeking medical help earlier when they are sick.

Smeltz and Baire (1992:830) state that patients families and friends are advised about the routes of transmission of human deficiency virus. All fears and misconceptions should be thoroughly discussed. In addition, the nurse discusses precautions, necessary to prevent transmission of HIV, including the use of condoms during vaginal or anal intercourse, avoiding oral contact with the penis, vagina or rectum and avoiding sexual practices that might cause cuts or tears. The danger of sharing needles and syringes are also discussed. Patients with HIV and AIDS are instructed not to donate blood or other body organs, to prevent spread of HIV infection.

2.10.1.7 SYNDROMIC MANAGEMENT OF SEXUALLY TRANSMITTED INFECTIONS (STIs)

This is a recently discovered method of treatment of sexually transmitted infections which is expected to effectively help in the treatment of these infections.

2.10.1.7.1 DEFINITION

A syndrome can be defined as a combination of symptoms or complaints and signs subsequently detected during clinical examination. Fortunately many of the symptoms are caused by different sexually transmitted infections that are similar enough to be easily recognised clinically, and these can be grouped in a small number of syndromes (Ballard and Neilsen 2000:53).

The World Health Organization is strongly encouraging the adoption of syndromic case management of sexually transmitted infections, and it has developed a series of flowcharts or clinical algorithms for the standardised management of sexually transmitted infectious cases.

2.10.1.7.2 ADVANTAGES OF SYNDROMIC CASE MANAGEMENT

According to Ballard and Neilsen (2000:54) syndromic case management offers several advantages which are:

- Easy to use, do not require trained sexually transmitted infection specialists, therefore it is suitable for any level of health system, particularly primary health care centres.
- Rapid, non time-consuming and allow treatment of the infection at the time of first visit, with no delays, or need for a return visit.
- Inexpensive, as it does not require the use of expensive laboratory.
- Treatment recommended covers the whole range of infections known to cause the syndrome; thereby, providing effectiveness of the drugs selected if adequate and properly monitored. The rate of failure can be expected to be minimal. This in turn limits the risk of further spread of infection, and at the same time it decreases the risk of complications.
- Simple flow-charts are suitable training tools for enabling health care staff to members manage sexually transmitted infections easily.
- Standardisation of management offers a number of additional advantages, such as allowing comparison of the reporting of different health facilities, therefore facilitating surveillance; delays the development of antimicrobial resistance; facilitates the provision of drugs, and creates confidence in the health care system.
- Can be integrated with a simple partner notification system.
- Probably the most important advantage, however is that syndromic management offers a rapid means of managing sexually transmitted infections cases in a busy primary health care clinic and thus allows time for condom promotion, partner notification and the importance of compliance in taking multidose therapy which would otherwise not be performed.

2.10.1.7.3 DISADVANTAGES OF SYNDROMIC CASE MANAGEMENT

Dangor and Monedi (2003:4) identified the following disadvantages of syndromic management:

- a. Many patients may be over treated, receiving more drugs than actually necessary.
- b. This approach does not address the issue of persons with asymptomatic infection who do not present themselves to health services for treatment and
- c. Compliance to treatment is low.

2.10.1.7.4 SYNDROMIC FLOW CHARTS

Ballard and Neilsen (2000:54) state that management of individual sexually transmitted infection case may be either adopting the syndromic or clinical approach. This should nevertheless follow a standardised system, and should always include the following steps:

- Medical and sexual history taking.
- Performance of a physical examination.
- Establishment of a diagnosis and provision of treatment.
- Education and counselling to prevent subsequent episodes of the disease.
- Condom promotion and demonstration.
- Partner notification and management.

2.10.1.8 TREATMENT OF GENITAL ULCERS (GUD)

Genital ulcers are very common to pregnant mothers, so Ballard and Neilsen (2000:65) suggested the following information be given to mothers about management of genital ulcers. This treatment is divided into D, E, F and G.

TREATMENT OPTIONS –D

Management of Genital Herpes

- Counseling about the nature of the disease with emphasis on possible recurrences.
- Lesions should be kept clean and dry, using talcum powder.
- Secondary infected herpes lesions should be treated with Citromazole 1 double strength tablet (100/800mg)per mouth twice a day for 7 days.

Or

Erythromycin 500mg per mouth qid for 7 days

- Pain relief if necessary with any mild analgesic
- If available specific herpes therapy may be provided. The dose indicated below are those recommended for primary herpetic episodes which are:-

Acyclovir 200mg 5 times daily per mouth for 7 –10 days

Or

Famciclover 250mg orally for 7-10 days

Or

Valacyclovir 1g orally bd for 7-10 days

TREATMENT OPTIONS – E is for treatment of early Syphillis which is:

*Benzathine Penicillin 2.4 mu intramuscular stat

or

*Procaine Penicillin G 600 000 u i.m. daily for 10 days

or

Tetracycline 100mg orally bd for 15 days

Or

*Erythromycin 500mg orally qid for 15 days

PLUS

Treatment for Chancroid which is

*Erythromycin 500mg orally qid for 7 days

or

Ciprofloxacin 500mg orally stat

Or

Oflaxacin 400mg orally stat

Or

*Ceftriaxone 250 mg intramuscularly stat

or

*Azithromycin 1g orally stat

The above treatment instructions should be given to each and every pregnant woman that is infected with the disease.

TREATMENT OPTION – F

Treatment for early syphilis

*Benzathine Penicillin 2.4 mu intramuscularly stat

Or

*Procaine Penicilline G 600 000 uim daily for 10 days

PLUS

Treatment for Lymphogranuloma Venereum and Chancroid

*Erythomycin 500mg p.o quid for 14 days

2.10.1.9 TREATMENT OF INGUINAL BUBOES (BUB)

The following information for pregnant mothers is also important according to Ballard and Neilsen (2000:67):

TREATMENT OPTIONS –G

Treatment for Early Syphilis

*Benzathine Penicillin 2.5 mu im stat

or

*Procaine penicillin G 600 000 u intramuscularly daily for 10 days

PLUS

Treatment for Lymphogranuloma Venereum

*Erythromycin 500mg p.o qid for 14 days

(active against chancroid)

Or

*Doxycycline 100mg p.o bd for 14 days

(not active against chancroid)

2.10.1.10 TREATMENT OF TRICHOMONIASIS AND BACTERIAL VAGINOSIS

TREATMENT OPTIONS – B1

This is a very common condition in pregnancy. So it is important that each and every pregnant mother is taught about it according to Ballard and Neilsen (2000:67).

Metronidazole 400mg orally twice for 7 days

Or

Metronidazole 2g orally stat

(less effective than multidose therapy for bacterial vaginosis)

Or

Tinidazole 500mg orally twice for 5 days

Or

*Ampicillin 500mg orally qid for 7 days

(active against bacterial vaginosis only)

Or

Clindamycin 300mg orally twice daily for 7 days

TREATMENT OPTIONS – B2

Topical Treatment for Candidiasis

*Clotrimazole 200mg pessaries nightly for 3 nights

(also active against T. Vaginallis)

Or

*Clotrimazole 500mg pessary stat on retiring

or

*Miconazole 200mg pessaries nightly for 7 nights

or

*Nystatin pessaries twice daily for 14 days

NB Treatments marked with * are safe to use during pregnancy and breastfeeding

2.10.1.11 TREATMENT FOR PELVIC INFLAMMATORY DISEASE (PID)

Ballard and Neilsen (2000:13) state the following about treatment of PID which is very common in pregnant women especially because it is caused by different bacteria:

TREATMENT OPTIONS –C

Treatment for Gonorrhoea

***Ceftriaxone 250 mg intramuscularly stat**

or

***Cefotaxime 1g intramuscularly stat**

or

Ciprofloxacin 500mg orally stat

Or

Ofloxacin 400mg orally stat

Or

***Spectinomycin 2g intramuscularly stat**

PLUS

Treatment of Chlamydia

Tetracycline or * Erythromycin 500mg p.o qid for 14 days

Or

Doxycycline 100mg p.o bd for 14 days

PLUS agents marked with * are safe to use during pregnancy and breastfeeding.

Treatment for Anaerobes

Metronidazole 400mg p.o b.d for 7days

Each and every pregnant woman should be empowered with a lot of health education on STI's in order to prevent their occurrence.

2.11 CONCLUSION

The midwives must ensure that all the pregnant women understand the danger signs of sexually transmitted infections, signs and symptoms, prevention, complication and their management, for the health education to be effective during the antenatal period. Shabalala (2003:31) commented that the prevalence of syphilis among women younger than 20 years shows similar characteristics of prevalence reported for HIV in the past 4 years. She emphasized the participation of all sectors of society and reinforced inter-sector involvement in implementing HIV/AIDS. And sexually transmitted infection strategic initiative will be critical for implementation of an effective national program.

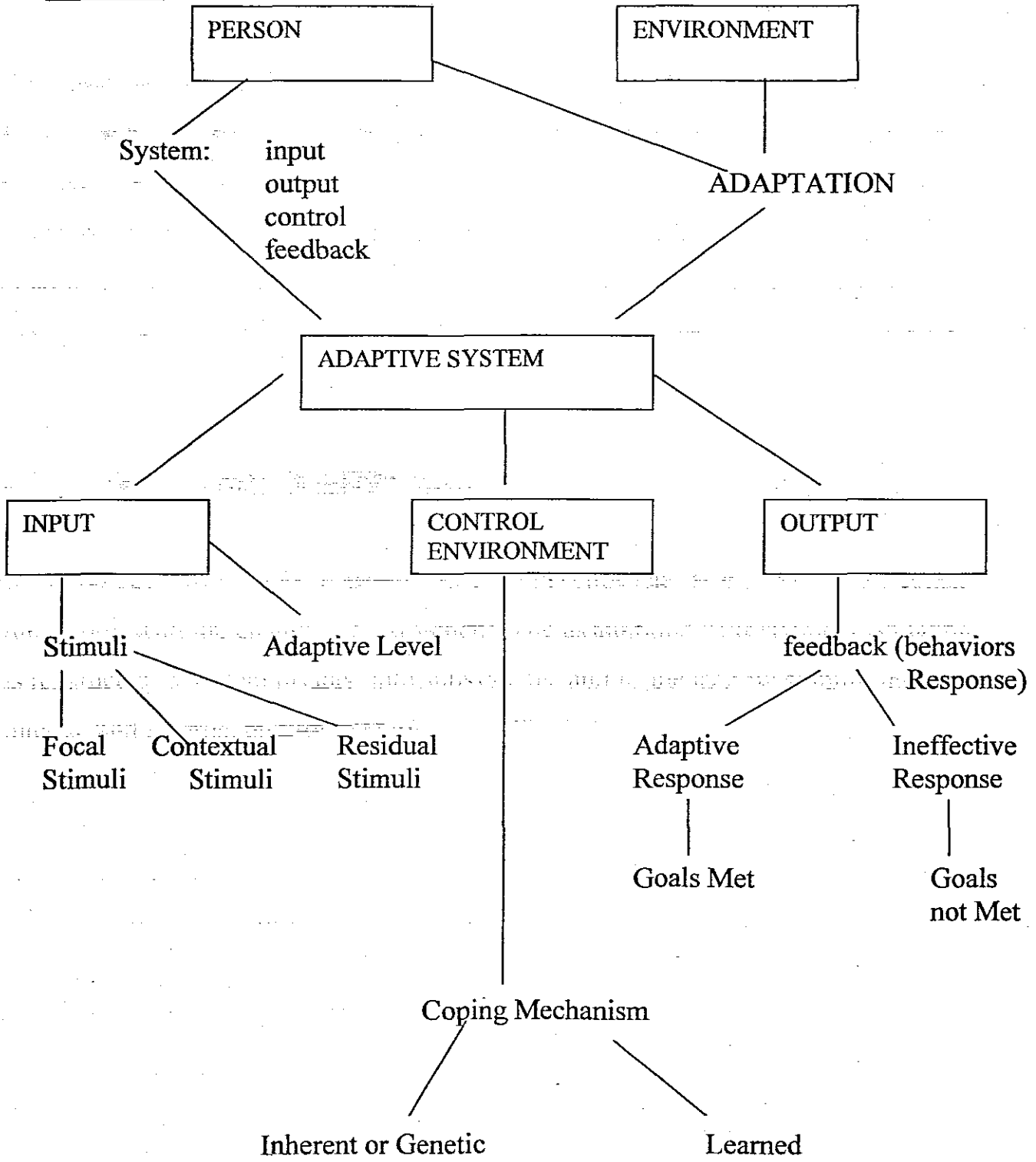
2.12 THEORITICAL FRAMEWORK

This study will be based on Callista Roy's Adaptation model. The concept of the person, nursing, health and environment are all interrelated to the concept of adaptation. Marriner (1986:302) cited in George (1995:252) states that a person continually scans the environment for stimuli, responds to them and ultimately adapts to them. The stimuli are called input and responses are called output. Output can either be positive, that is adaptive response, or negative, that is an ineffective response.

2.12.1 ROY'S ADAPTATION MODEL

In this model, Roy views a person as a biopsychosocial being who is in constant interaction with the changing environment. The assumption of this model is that man is regarded as a system divided into subsystems, and influenced by stimuli in both his internal and external environment (George 1995:252).

SKETCH



Adapted Roy's Model of Adaption
(George, 1995:252)

THE PERSON: A LIVING ADAPTIVE SYSTEM

An open living system means that the person receives input or stimuli from both the environment and from the self. Characteristics of a system include inputs, controls and feedback.

Adaptations: The adaptive system has inputs and stimuli and adaptation level, outputs are behavioural responses that serve as feedback, and control processes known as coping mechanisms. Output responses can be both internal and external. These responses are the persons' behaviour.

Adaptive Responses are those that promote the integrity of the person. The person's integrity or wholeness, is behaviourally demonstrated when the person is able to meet the goals in terms of survival, growth, reproduction, and mastery.

Ineffective responses do not support these goals. Roy has used the term coping mechanism to describe the control processes of the person as an adaptive system. The aim of the nurse practicing under Roy's model is to promote the health of the person by promoting adaptive responses.

Stimuli from within the person and stimuli from around the person represent the element of the environment. These are all conditions, circumstances, and influences that surround and affect the development and behavior of persons and groups. The adaptation level of the person as an adaptive system is influenced by individual development and the use of coping mechanisms.

ASSUMPTIONS OF ROY ADAPTATION MODEL

According to Fawcett (1995:440) assumptions of Roy's model are the following:

1. Holism – a system is a set of units so related or connected to form a unity or whole
2. Interdependence – a system is a whole that functions as a whole by virtue of the interdependence of its parts.
3. Control processes- a system has inputs, outputs, and control feedback processes.
4. Information feedback- input, in the form of a standard or feedback, is often referred to as information.
5. Complexity of living systems – living systems are almost infinitely more complex than mechanical systems and have standards and feedback to direct their functioning as a whole.

RELEVANCE OF ROY'S MODEL TO THE STUDY

This framework is relevant to the study because pregnant women are persons viewed as systems interacting with the internal and external environmental stimuli.

The health education given to the pregnant women on sexually transmitted infections are taken as the external inputs from the health care workers. The understanding of health education information by the pregnant women with sexually transmitted infections will be displayed as output. This feedback will be displayed by changes in the behaviours and actions of pregnant women, when pregnant women respond properly by attending antenatal clinics on time and coping with their infections.

Adaptation will be seen by the reduction of the incidence of sexually transmitted infections. If there are no improvements it could mean that there were problems encountered with health education given by health professionals and the

understanding level of pregnant women with sexually transmitted infections. In other words they will fail to adhere to health educational practices and will fail to adapt which will be displayed by reinfection. If they adhere to health education given by health professionals, they will be able to cope with their health problems. They will also display this coping by taking medications properly as ordered, to condomise when on treatment and do proper personal hygiene to minimize the infections.

All the midwives aim at promoting the good health of pregnant women with sexually transmitted infections by giving health education on: preventive majors, causes, signs and symptoms, treatment and complication of infections. Health education will promote adaptive responses of pregnant women in order to be able to adapt to the situation. For example if the woman presents with genital warts, she will be educated about washing of genitals, taking of analgesics for pain, and be prepared for elective caesarian section which will be done during delivery in order to prevent cross infection from the mother to the newborn.

If the pregnant women continues to complain about offensive vaginal discharges and lower abdominal pain even after the treatment, this will mean that the health education given was ineffective, but if the sexually transmitted infection is cured, that will mean that it was effective.

2.13 CONCLUSION

Adaptation is a central and unifying concept within the model discussed. The recipient of nursing care is the person as an adaptive system receiving stimuli from the environment in the dimension of his life related to health and illness. The stimuli may be inside or outside the person's zone of adaptation. The pregnant women should be helped to adapt by being given health education about prevention of sexually transmitted infections and reinfection.

In this chapter literature review and theoretical framework used for the study were discussed. In the next chapter the research methodology will be discussed.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 INTRODUCTION

In this chapter the following will be discussed:

- Research Design
- Target Population
- Delimitation of the scope of the study
- Sample and sampling technique
- Research Instruments
- Validity and reliability of the instrument
- Pilot Study
- Ethical consideration
- Data Collection
- Data Analysis

3.2 RESEARCH DESIGN

The research design is the scheme of actions the researcher elected and aimed at for obtaining information about the effectiveness of health education given to pregnant women with sexually transmitted infections. It constitutes the planning and the structuring of the research process. The researcher chose a descriptive survey. Descriptive studies are designed to describe specific phenomena or variables or to find relationships between variables (Treece and Treece 1986:175).

3.3 TARGET POPULATION

The target population is the aggregate of cases about which the researcher would like to make generalizations (Polit and Hungler 1997: 254).

In this study the target group was pregnant women attending ante-natal care clinics in Stanger Hospital and KwaDukuza Clinics, which were infected with sexually transmitted infections in District 29 of KwaZulu Natal.

These pregnant women were selected because they had sexually transmitted infections and were able to give adequate information needed about the study.

3.4 DELIMINATION OF THE SCOPE OF STUDY

The study was undertaken at Clinics, areas of the obstetric departments of Stanger Hospital and KwaDukuza Clinics of District 29 of KwaZulu Natal. All pregnant women from the hospital and clinics formed the target group.

3.5 SAMPLE AND SAMPLING TECHNIQUE

3.5.1 SAMPLE SIZE

Sample refers to some of the individuals within a specific territory or small portions of a population or a smaller representation of a large whole, intended to reflect and represent the character, style or content of the population from which it is drawn Brink(1996: 133). In this study pregnant women with sexually transmitted infections were selected systematically until the number of (30) thirty women was reached.

3.5.2 SAMPLING TECHNIQUE

Sampling procedure is a representative selection of the group of the population to be studied, Notter (1986: 93). The researcher chose a systematic random sampling technique because each individual has an equal, independent chance of being selected and as such greater confidentiality can be placed on its representativeness.

Every third pregnant woman with sexually transmitted infection coming to the clinic was selected and interviewed face to face until 30 patients were selected for the study. It took 4 days to complete the number required.

3.6 RESEARCH INSTRUMENT

The instrument used for data collection consisted of a self administered pencil and paper question. The researcher designed the questions in order to collect information on the effectiveness of health education given to pregnant women with sexually transmitted infections. The researcher did face to face interviews with the respondents which consisted of open and closed ended questions which were structured and unstructured.

3.6.1 SECTION A

PERSONAL PARTICULARS

This section consisted of personal particulars which were included because they might have contributed to sexually transmitted infections. Issues such as age, marital status, number of children and area of residence for pregnant women were covered.

3.6.2 SECTION B

EDUCATIONAL INFORMATION

This section included educational information of pregnant women. The standard of education might affect the effectiveness of health education.

3.6.3 SECTION C

EMPLOYMENT HISTORY

This section included views about the employment history of the pregnant women and the spouse, consisted of employment status of a person supporting financially, type of job and partner traveling long distance. This might be a contributing factor for sexually transmitted infections to pregnant women especially if a partner is traveling long distances by trucks.

3.6.4 SECTION D

HEALTH HISTORY

This section was included in order to get information about the history of previous pregnancies, as it might have also contributed to sexually transmitted infection of the present pregnancy. The following was covered; clinic attendance, first visit to clinic, problems experienced, type of sexually transmitted infection, and treatment of the partner.

3.6.5 SECTION E

HISTORY OF PRESENT PREGNANCY

This section was included in order to get more information about the present pregnancy and to determine the effectiveness of health education. Questions included were duration of pregnancy, commencement of clinic visits, number of visits, problems experienced, treatment ordered, treatment of the partner, treatment completed and reason for not treating the partner.

3.6.6 SECTION F

HISTORY OF ILLNESS

This section was included to find out the history of illness in order to get information about the type of sexually transmitted infection the pregnant woman had. The following 13 questions were asked: understanding of causes and contributory factors, signs and symptoms, information given about signs and symptoms, understanding of signs and symptoms, taking of blood tests, pretest counseling, pretest counseling tests done and results, person that gave results, post counseling done after results, blood test done and counseling given to partners and number of partners.

3.6.7 SECTION G

HEALTH EDUCATION HISTORY ON PREVENTION OF STI'S

This section was included to investigate whether adequate health education was given to pregnant women or not. The following 12 questions were asked: health education given, information about prevention of STI's, measures mentioned,

person that gave information, inclusion of the partner in health education, awareness of health services for STI, person who provided information about free health services, information about breastfeeding when having STI, information given and information about contraceptives.

3.7 VALIDITY AND RELIABILITY

The reliability and validity of the instrument, questionnaire was ensured because an extensive literature review was done on the topic, and the questions were based on the objectives of the study.

The questions were also sent to different experts who were nursing managers of obstetric units to confirm the relevance and reliability of the instrument to collect data. Minor corrections were done after which the instrument was accepted.

3.8 PILOT STUDY

Pilot study is the small scale version or trial run of the major study (Brink, 1996: 60). Its function is to test the instrument and establish if it needs some improvements before the major study is undertaken. The pilot study was done to pretest the instrument on the group of five pregnant women infected with sexually transmitted infections attending antenatal care in Stanger Hospital and KwaDukuza Clinic. The subjects were included in the main study.

The research took 30-40 minutes to interview each respondent. The minor corrections were done and the suitability of the instrument was confirmed.

3.9 ETHICAL CONSIDERATIONS

Permission to conduct the study was obtained from the Secretary of the Department of Health at Pietermaritzburg. Permission was obtained from the Hospital Manager and Nursing Manager of Stanger Hospital and from the district manager of KwaDukuza Clinic.

Informed consent was obtained verbally from each participant before interviews were conducted. The purpose of the study was explained and were assured of anonymity and confidentiality by telling them not to write their names anywhere on the instrument.

3.10 DATA COLLECTION

Data was collected face to face by the researcher. It took about 30-40 minutes to interview each respondent.

3.11 DATA ANALYSIS

Data was analysed by hand by the researcher and presented in tables and graphs using descriptive statistics.

3.12 CONCLUSION

The researcher discussed how the research process was planned and structured. The following topics were covered, research design, target population, delimitation of the study, sample size and sampling procedure, pilot study, ethical consideration, data collection and analysis. In the next chapter data analysis and interpretation will be done.

CHAPTER 4

DATA ANALYSIS IN INTERPRETATION

INTRODUCTION

In this chapter data analysis and interpretation are discussed, and the results are displayed in the form of tables, pies and graphs.

SECTION A

PERSONAL PARTICULARS

This section was included to get personal information about the respondents because they might influence the effectiveness of health education. The following items were included: age group, marital status, area of residence and number of children.

ITEM 1 AGE GROUP OF RESPONDENTS

Table 4.1 Age group of respondents

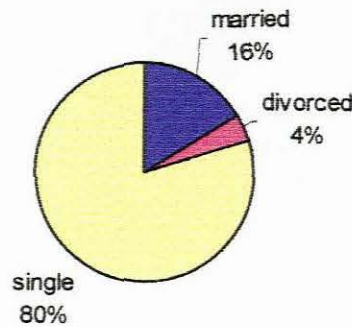
AGE GROUP	FREQUENCY	PERCENTAGE
12 – 19	4	13%
20 – 34	22	74%
35 and above	4	13%
TOTAL	30	100%

The above table 4.1 revealed that most of the pregnant women were between ages 20-34 (22) 74%, followed by those with ages 12-9 (4) 13% and another (4) 13% were 35

and above. These results indicate that pregnant mothers were still young and sexually active which might have contributed to the occurrence of sexually transmitted infections. Kessner (1991:171) states that young people are especially affected because they are more active socially and sexually, and the disease rates are increasing faster among them than in the population as a whole.

ITEM 2 MARITAL STATUS

Figure 4.1 Marital Status

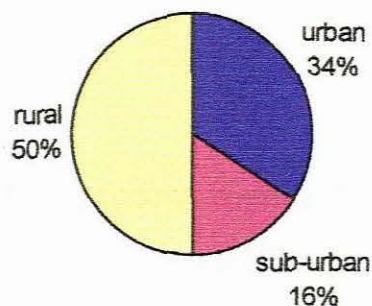


Results in Figure 4.1 show that (24) 80% pregnant women were single, (5) 16% were married and only (1) 4% was divorced. Single women have a tendency of having more than one sexual partner, or of changing the partners because they are free, unlike the married ones who have husbands. That is why they are more prone to sexually transmitted infections. Gumede and Mofokeng (1998:16) in their research study discovered that 20% of females attending the sexually transmitted infection clinic were single and had more than one partner. Beischer (1988:239) on the other hand states that the incidence varies markedly throughout the world, higher rates being seen in the young unmarried and sexually promiscuous.

ITEM 3 AREA OF RESIDENCE

This question was included in order to identify the areas where mothers were residing as this might have contributed to the incidence of sexually transmitted infections.

Figure 4.2 Area of Residence

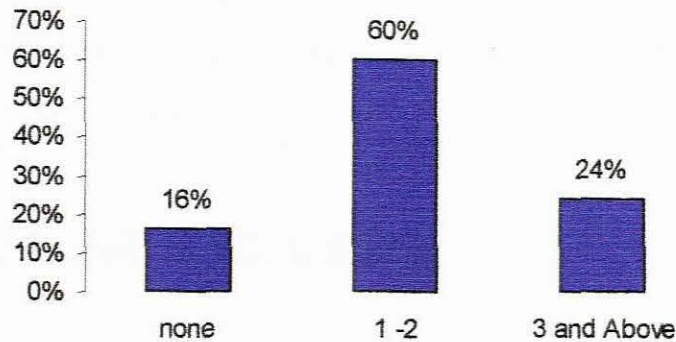


The above results indicate that most pregnant women with sexually transmitted infections were from the rural areas (15) 50%, followed by urban areas (10) 34%, and the remaining (5) 16% were from suburban areas. The reason for these results may be that most of the people leave the rural areas to work in urban areas. When they are there, they get other sexual partners, and go back to infect those in the rural areas during holidays if preventive measures not used.

De Haan (2000:124) indicates that the migration of young people from the rural areas to the cities loosens family ties and lessens the power of the group to control the behaviors of its members. Another factor might be that women in the rural areas are ignorant about personal hygiene, which predisposes them to sexually transmitted infections.

ITEM 4 NUMBER OF CHILDREN

Figure 4.3 Number of Children



The figure above illustrates that pregnant women had (1-2) children (18) 60%, (7) 24% 3 and above and only (5) 16% had no children.

The results may indicate that although all (25) 84% pregnant women were infected by sexually transmitted infections those with 1-2 children were more affected as compared to those with 3 and above. It may be argued that those with 1-2 children had less experience in coming to the clinics for health education then those with 3 or more children.

As a result they could have previously accumulated more knowledge about prevention and management of sexually transmitted infections from the health professionals in the clinics

SECTION B

EDUCATIONAL INFORMATION

This section was included to find out the level of education for each respondent, because this might affect the level of knowledge or understanding of health education on sexually transmitted infections.

ITEM 5 STANDARD OF EDUCATION

Table 4.2 Standard of Education

STANDARD OF EDUCATION	FREQUENCY	PERCENTAGE
No education	3	10%
Primary School	11	37%
Secondary School	6	20%
High School	9	30%
Tertiary Education	1	4%
TOTAL	30	100%

The table above reveals that (11) 37% of pregnant women with primary school education were more affected by sexually transmitted infections, followed by high school education (9) 30%, secondary education (6) 20%, no education (3) 10% , and (1) 4% with tertiary education. This means that women were affected almost equally with sexually transmitted infections irrespective of the level of education. But it could be argued that those with primary school education were mostly affected. This low standard of education could have contributed to their lack of proper understanding of health education given to them by health care professionals in the clinics.

SECTION C

EMPLOYMENT HISTORY

It became necessary to get employment information of the respondents because this might influence the attendance of ante-natal clinic for health education. Working mothers will be able to attend the clinic regularly because they will have enough money whereas the unemployed ones might experience problems.

ITEM 6 EMPLOYMENT STATUS OF RESPONDENTS

Table 4.3 Employment Status of Respondents

EMPLOYED	FREQUENCY	PERCENTAGE
Yes	11	37%
No	19	63%
TOTAL	30	100%

The above Table 4.3 shows that most respondents were not working (19) 63%, and only (11) 37% were working. This may result in failure of unemployed women to attend the clinic for health education, because of lack of funds. In that way these women will lack enough knowledge about prevention and treatment of sexually transmitted infections.

Sellers (1993:1070) emphasizes the point that unemployment and prostitution rates increase the number of people infected by sexually transmitted infections.

ITEM 7 PERSON SUPPORTING FINANCIALLY

Pregnant women who were unemployed were asked to comment about their financial support in order to attend antenatal clinics.

Table 4.4 Financial support

FINANCIAL SUPPORT	FREQUENCY	PERCENTAGE
Parent	7	23
Husband	4	13
Boyfriend	11	37
Self	8	27
TOTAL	30	100%

The above Table 4.4 indicates that the majority of pregnant women received financial support from their boyfriends (11) 37%, followed by women who could support themselves financially (8) 27%, women supported by their parents were (7) 23% and only (4) 13% women were supported by their husbands.

This meant that most women received financial support from their boyfriends, which is appreciated because this might enable them to attend the ante-natal clinic for health education. But at the same time they might have more than one boyfriend in order to get more money and sometimes this may cause them to stay together with their boyfriends thereby predisposing them to sexually transmitted infections

ITEM 8 TYPE OF JOB DONE BY PARTNERS

This question was asked in order to find out the type of work done by the partners because work can influence the occurrence of sexually transmitted infection especially if they are working in low paying jobs.

Table 4.5 Job Done by Partner

JOB DONE BY PARTNER	FREQUENCY	PERCENTAGE
None	19	63%
Factory	5	16%
Mineworker	2	7%
Driver	2	7%
Professional	2	7%
TOTAL	30	100%

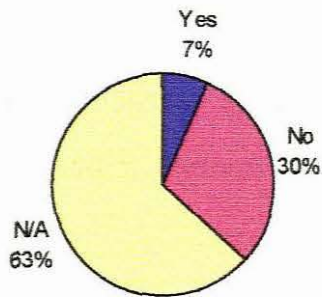
The above table 4.5 shows that most partners were factory workers (5) 16%, followed by mineworkers (2) 7%, drivers (2) 7%, and professionals also (2) 7%, and the rest (19) 63% were not working.

These results indicate that the majority of partners were not working and those that were working, were in the low paying jobs like the industries, mines and drivers.

These factors might cause them to have away from their families, extrasexual partners, predisposing them to sexually transmitted infections.

ITEM 9 DO THE PARTNER TRAVEL LONG DISTANCE

Figure 4.4 Travelling Long Distance



The above figure reveals that most partners that were working were not travelling long distances (9) 30% and only (2) 7% partners' travel long distances, whilst (19) 63% were not working

Even if only (2) 7% of partners were long distance travelers, they might infect many people at a time, if they got extra partners and engaged themselves in unprotective sex practices so they need extensive health education on methods of preventing sexually transmitted infections.

Dangor and Monedi (2003:3) comment that sexually transmitted infections are common to commercial sex workers and long distance truck drivers.

SECTION D

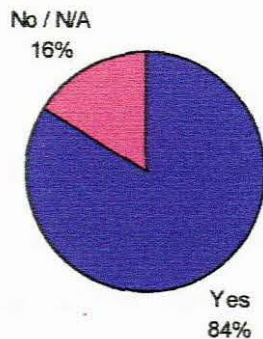
HEALTH HISTORY

HISTORY OF PREVIOUS PREGNANCIES

This section was included to collect data on the history of previous pregnancies or pregnant mothers infected with sexually transmitted infections, because this might influence the present pregnancy.

ITEM 10 CLINIC ATTENDANCE

Figure 4.5 Clinic Attendance



The above Figure 4.5 shows that (25) 84% women attended the clinic with their previous pregnancies, and for (5) 16% women is not applicable because they were pregnant for the first time.

These results are indications that even though most pregnant women attended the clinic with their previous pregnancies, they were still lacking information about prevention of sexually transmitted infections because they were still infected. This

can be due to their negligence, or that they were not given adequate health education during antenatal care, resulting in reinfection.

ITEM 11 FIRST VISIT TO CLINIC

This question was included to determine the stage of the first visit to the clinic by the pregnant women. This information will show whether clinic visits were started early or late in pregnancy.

Table 4.6 First Visit to Clinic

GESTATION	FREQUENCY	PERCENTAGE
1 st Trimester	10	34%
2 nd Trimester	11	37%
3 rd Trimester	4	13%
Non- Attendant	5	16%
TOTAL	30	100%

The above table 4.6 indicates that mothers started clinic visits during the second trimester (11) 37%, followed by mothers who started during 1st trimester (10) 34%, (5) 16% did not attend clinic because they were not pregnant before and only (4) 13% started clinic during their third trimester.

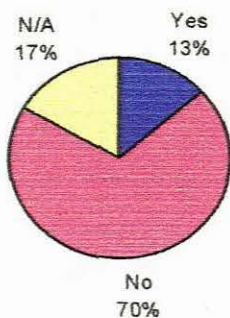
These results show that most women started their clinic visits late, after the fourth month of pregnancy, which meant that they were unable to get enough information about prevention and treatment of sexually transmitted infections at that time and this might have resulted in the occurrence of complications, especially to their unborn babies. This is also a problem because all these mothers were supposed to attend the clinic during the first semester as this is the recommendation they always receive

from the clinics. It might also be the reason why they are still infected with the present pregnancy.

Bennett and Brown (1996:185) indicate that mothers that attend antenatal care early had enough time to assimilate what was taught. Women who start attending clinic during the third trimester will attend twice or three times, then they will be in labour before they finish their treatment, and also the women who did not attend clinic at all might experience complications as a result of inadequate or no health education given to them.

ITEM 12 PROBLEMS EXPERIENCED PREVIOUSLY WITH SEXUALLY TRANSMITTED INFECTION

Figure 4.6 Problems experience previously with sexually transmitted infection.



The figure 4.6 above illustrates that most of the pregnant women did not have sexually transmitted infections with their previous pregnancies (21) 70% and only (4) 13% had sexually transmitted infections. pregnancies, (5) 17% were not applicable because they were primigravida.

This indicates that even if most women did not experience problems with their previous pregnancies, only (4) 13% had sexually transmitted infection with their previous pregnancies and they could have prevented the reoccurrence of the infection since they had previous experience of this condition. This may be due to lack of effective health education or their poor attendance of the clinics.

ITEM 13 TYPE OF SEXUALLY TRANSMITTED INFECTION THAT OCCURRED

This question was asked of pregnant women in order to identify the types of sexually transmitted infections affecting them.

Table 4.7 Type of sexually transmitted infection

TRANSMITTED INFECTION	FREQUENCY	PERCENTAGE
Genital Warts	1	4%
Genital Sores	1	4%
Vaginal Discharges	2	7%
Not Infected	26	85%
TOTAL	30	100%

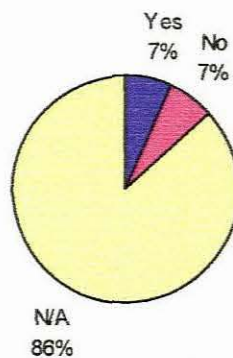
The Table 4.7 above reveals that (26) 87% of mothers were not infected with sexually transmitted infection, and most pregnant women who were infected had vaginal discharge (2) 7% followed by women with genital sores (1) 3% and genital warts (1) 3%.

The above infections could have been prevented with the present pregnancies after receiving health education. Vlok (1996:583) states that condoms can be used for the prevention of transmission of sexually transmitted infection.

ITEM 14 TREATMENT OF PARTNER

This question was included in order to determine if the partner was treated or not because that influences reinfection.

Figure 4.7 Treatment of Partner



The above Figure 4.7 reveals that (2) 7% of sexual partners of pregnant women were treated for sexually transmitted infections. The other (2) 7% were not and (26) 85% were not included because they were not infected previously by sexually transmitted infections.

These results indicate that partners who were not treated were reinfected again because they did not apply the protective measures, and at the same time partners who were treated were reinfected, by their partners meaning that they purposely did not use methods of prevention of sexually transmitted infections.

Nzimande (1980:196) indicates that if you insist on continuing with loose casual relationships use a "condom" as a protective method. This gives a certain amount of protection against infection.

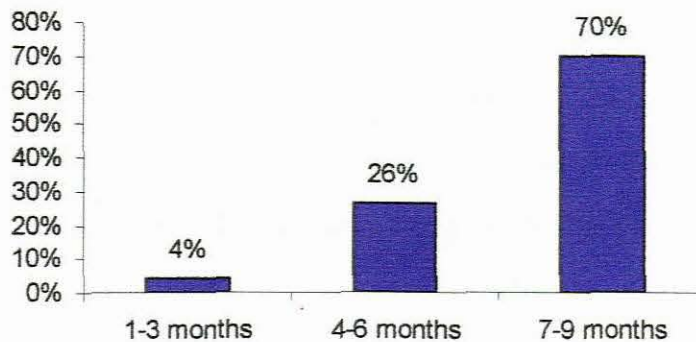
SECTION E

HISTORY OF PRESENT PREGNANCIES

This section was included to determine the health status of pregnant women, and to identify the problems that they experienced with the present pregnancy which might have influenced the occurrence of sexually transmitted infections. It will also help to compare the present pregnancies with the previous ones in order to judge how effective the health education is provided to pregnant mothers with sexually transmitted infections.

ITEM 15 DURATION OF PREGNANCIES

Figure 4.8 Duration of Pregnancies



The above Figure 4.8 illustrates that the majority of pregnant women infected were between 7 – 9 months pregnant (21) 70%, followed by 4-6 months (8) 26% and only (1) 4% was between 1- 3 months.

The results reveal that pregnant women infected were mostly 7-9 months pregnant. During this time extensive health education and treatment of infections was important to prevent cross infection to the unborn or newborn baby. Harrison et al (1996:96)

stated that maternal infection such as syphilis can be transmitted through the blood stream to the fetus. This is a serious problem because these women were about to deliver but they were still infected with sexually transmitted infection.

ITEM 16 COMMENCEMENT OF CLINIC VISIT

Table 4.8 Commencement of Clinic visit

FIRST CLINIC VISIT	FREQUENCY	PERCENTAGE
1-3 months	11	37%
4-6 months	17	56%
7-9 months	2	7%
TOTAL	30	100%

The above Table 4.8 indicates that (17) 56% pregnant women started antenatal clinic from 4-6 months, (11) 37% started clinic visits at 1-3 months, and only (2) 7% started clinic at 7-9 months. Most of these women (25) 84% were attending the clinic more than two times, there was no reason why they started attending clinic so late because health professionals always stress the need for attending during the first trimester. Maybe the (5) that were coming for the first time might be excused.

Kirtley (1995:8) cited by Pretorious and Graff (2004:14) commented that commencing clinic visits on the third trimester is no good, visits should commence during the first trimester which is the correct time for effective health education.

This might be an indication of the ineffectiveness of health education, and it is important to find out why this is happening.

ITEM 17 NUMBER OF CLINIC VISITS

Table 4.9 Number of Clinic Visits

VISITS ATTENDED	FREQUENCY	PERCENTAGE
1-3 times	3	10%
4-6 times	10	34%
7 and Above	17	56%
TOTAL	30	100%

Table 4.9 above reveals that the majority of pregnant women attended clinic many times, 7 and above (17) 56%, followed by 4-6 times (10) 34% only (3) 10% attended 1-3 times.

These results indicate that pregnant mothers attended the clinic many times, but it is surprising that most come back still infected with sexually transmitted infections. The lack of adequate knowledge might be a sign of failure of health education that was given by health care workers, or might have been due to negligence on the side of the mothers by not applying the preventive measures mentioned or lack of proper understanding because of their low standard of education and other factors.

ITEM 18 PROBLEMS EXPERIENCED BY PREGNANT WOMEN

Table 4.10 Problems Experienced by Pregnant Women

PROBLEMS EXPERIENCED	FREQUENCY	PERCENTAGE
Genital Warts	3	10%
Pathological Vaginal Discharge	18	60%
Genital Herpes	6	20%
Genital Sores	3	10%
TOTAL	30	100%

The above Table 4.10 reveals that the majority of pregnant women had pathological vaginal discharges (18) 60%, genital herpes (6) 20%, genital warts (3) 10% and another (3) 10% genital sores.

The results are indications of ineffective health education provided to pregnant women because most of them (25) 84% were given health education with their previous attendances of the clinic but they were still failing to control or prevent these infections. It will be more important to find out what really causes or predisposes them to reinfections.

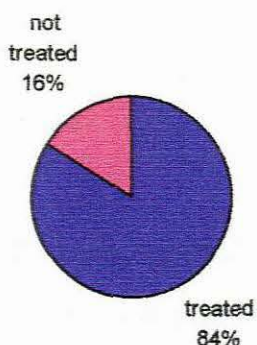
Ballard and Neilsen (2000:54) stated that management of sexually transmitted infections in women may succeed when using syndromic or any clinical approach as long as standardized systems of treatment are followed.

All the above sexually transmitted infections are treatable, only if the patients come to the clinics early for health education and treatment.

ITEM 19 TREATMENT PROVIDED TO THE RESPONDENTS

This question was included to determine if the pregnant women received treatment for their infections or not.

Figure 4.9 Treatment Provided to the respondents



The above figure shows that a large number of pregnant women received treatment for sexually transmitted infections (25) 84%, and only (5) 16% did not receive treatment but they were referred to the doctor for treatment to be ordered.

These results indicate that all mothers infected with sexually transmitted infections received treatment, because even those who were not on treatment were referred to the physician for ordering of medication.

ITEM 20 TREATMENT ORDERED FOR RESPONDENTS

Table 4.11 Treatment ordered for Respondents

TREATMENT ORDERED	FREQUENCY	PERCENTAGE
Oral Antibiotics (Tablets)	12	40%
Intramuscular Antibiotics (Injection)	6	20%
Tablets and Injection	6	20%
Not Applicable	6	20%
TOTAL	30	100%

The above Table, 40%, indicates that most pregnant women received oral antibiotics (12), 40%, followed by those who were on intramuscular antibiotics (6), 20%, those on both oral and intramuscular antibiotics were (6)24%, and another (6) 20% were not on medication at that time.

These results reveal that for the treatment of sexually transmitted infections the physicians' preferred oral antibiotics, which is very easy to take unlike intramuscular injections. Others were ordered intramuscular injections only, or intramuscular and oral antibiotics at the same time. This is the most effective treatment because health care workers are able to supervise it since they are the ones who give injections. The only problem is that it is easy for the client to default treatment especially if they are afraid of painful injections.

ITEM 21 RESPONDENTS COMPLETED TREATMENT OR NOT

This question was included because it is important to finish treatment ordered for effectiveness. Failure to finish treatment ordered results in sensitivity reactions.

Table 4.12 Respondent Completed Treatment or Not

TREATMENT	FREQUENCY	PERCENTAGE
Finished Treatment	14	47%
Still on Treatment	9	30%
Defaulted Treatment	2	7%
Not Applicable	5	16%
TOTAL	30	100%

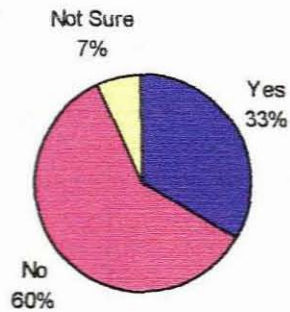
The results above indicate that the number of pregnant women who completed their treatment as ordered was (14) 47%, still on treatment (9) 30%, only (2) 7% defaulted their treatment, and (5) 16% were not on treatment.

These results show that even though most of the pregnant women completed their treatment and others were still on treatment, there are those who did not finish treatment because they defaulted. The clients who defaulted had only two doses of Bicillin injections instead of three doses in three weeks. The reasons given for defaulting, was that they were not told about when to come back for their last dose of injections, and the other reason was that, they came late at clinic from work.

Proper health education on how to take treatment is advisable in order to prevent drug sensitivity and defaulting.

ITEM 22 TREATMENT OF PARTNER

Figure 4.10 Treatment of the Partner



The above Figure 4.10 indicates that most of the partners of women with sexually transmitted infections were not treated (18) 60%, followed by partners who were treated (10) 33%, and only (2) 7% women did not know whether their partners were treated or not.

The results reveal that large numbers of sexual partners of pregnant women were not treated, and they will reinfect them if the condom is not used. The results also reveals that women who were not sure whether their partners were treated or not after telling them, were also prone to reinfection if they did not go to clinic for treatment.

ITEM 23 REASONS FOR NOT TREATING THE PARTNER

The (18) 60% respondents that said their partners were not treated were asked to mention the reasons why it was not done. Table 4.13 outline the reasons.

Table 4.13 Reasons for not Treating Partner

REASONS	FREQUENCY	PERCENTAGE
Spouse was not told about problem	9	30%
Spouse had no time to go for treatment	3	10%
They were no more on good terms	2	7%
Spouse preferred to use condoms	1	4%
Spouse was told and refused	2	7%
Spouse said he was not sick.	1	4%
Not applicable partner treated	10	34%
Not applicable	2	7%
TOTAL	30	100%

The above table indicates that most pregnant women did not tell their partners to go for treatment (9) 30%, followed by those who did tell their partners but they have said they did not have time since they were working (3) 10%, (2) 7% of pregnant women did not tell their partners because they were no more on good terms, (2) 7% partners were told but refused to go for treatment, (1) 4% preferred to use the condom than getting treatment and the last one (1) 3% did not go to clinic because he was not feeling sick. The other respondents (10) 34% were not included because their partners were treated and (2) 7% not applicable also because the respondents did not know whether partners were treated or not.

These results show that partners were not treated due to multiple reasons, and that some pregnant women did not tell their partners about the infection because they might be scared of losing their partners after telling the truth. This makes it difficult to treat sexually transmitted infections successfully because it is difficult to deal with

the partners. Most pregnant women get reinfected by these people who are not treated. According to Smeltz and Baire (1992:1204) for prevention of the spread of the infection patients are advised to refer to sexual contacts for treatment.

This is an indication that pregnant women did not have adequate knowledge of sexually transmitted infections. This might be due to the ineffectiveness of health education given by health care workers in antenatal clinics.

Kessner (1991:172) commented that measures aimed at education of the public regarding venereal diseases have been relaxed in such a way that ignorance now plays a large role in contributing to the increase of venereal diseases.

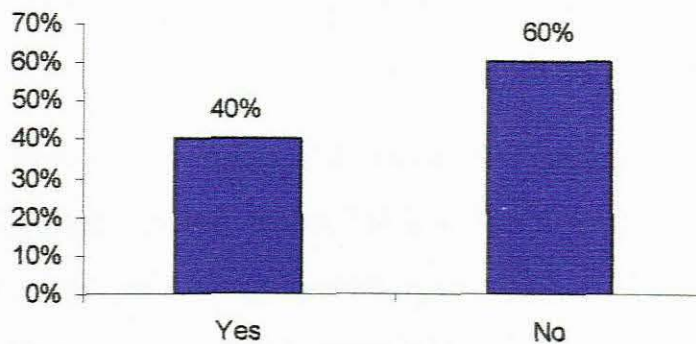
SECTION F

HISTORY OF ILLNESS

It became necessary to include this section in order to find out from the pregnant women if they had enough knowledge about sexually transmitted infections. This will make it easier for health professionals to provide further health education according to specific needs.

ITEM 24 UNDERSTANDING OF THE CAUSES AND CONTRIBUTING FACTORS OF SEXUALLY TRANSMITTED INFECTIONS

Figure 4.11 Understanding of Causes and Contributing Factors



The above figure reveals that most pregnant women did not understand the causes and contributing factors of sexually transmitted infections (18) 60%, and only a few understood these factors (12) 40%.

This is an indication that there is still a great need for the health care professional to give extensive health education in order to prevent lack of knowledge of causes and contributory factors since prevention is better than cure. More improved strategies should be used in a language relevant to that particular group of pregnant mothers for maximum effectiveness.

ITEM 25 CAUSES AND CONTRIBUTING FACTORS

The (12) 40% of mothers who showed some understanding of causes and contributory factors of sexually transmitted infections were asked to mention them.

Table 4.14 Causes and Contributing Factors

CAUSES AND CONTRIBUTING FACTORS	FREQUENCY	PERCENTAGE
Having many sexual partners	7	24%
Sex without condom	3	10%
Use of witchcraft material	1	3%
Use of Love Potions	1	3%
Not Applicable	18	60%
TOTAL	30	100%

The (12) 40% of pregnant mothers that knew the causes and contributory factors mentioned the following: in the above Table (7)24% said multiple sexual partners, followed by (3)10% who said it was caused by sex without a condom, others believed that it was due to the use of witchcraft material (1) 3%, and only (1) 3% believed that it was caused by the use of love potions. The remaining (18) 60% were not applicable because they said they did not understand causes and contributory factors of sexually transmitted infections.

The results reveal that others did not understand real causes of sexually transmitted infections, they believed that it was due to witchcraft, which was not true, that is why sometimes they do not come forward for treatment, they prefer to go to traditional healers. They also think sexually transmitted infections are caused by the use of love potions (traditional medicine used by females to be loved) that is why people end up

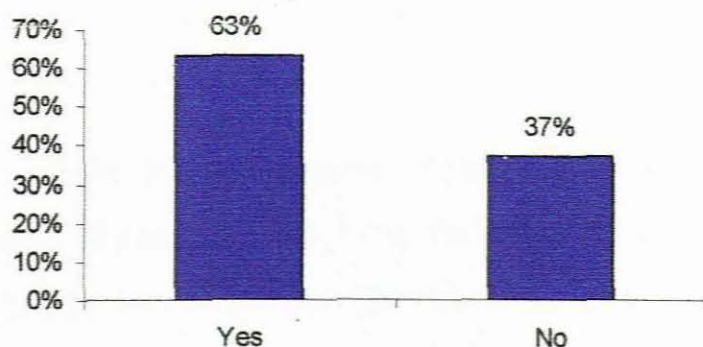
seeking help from witchdoctors. More health education is required to enlighten pregnant mothers about sexually transmitted infections and prevent ignorance.

It is important that all pregnant women fully understand these causes and contributory factors for effectiveness in the treatment of these infections in order to prevent complications that occur to the mother and unborn baby.

ITEM 26 IDENTIFICATION OF SIGNS AND SYMPTOMS OF STI'S BY THE RESPONDENTS

The respondents were asked if they could identify the signs and symptoms of sexually transmitted infections.

Figure 4.12 Identification of Signs and Symptoms of STI's



The above graph 4.12 reveals that most of pregnant women were able to identify signs and symptoms of sexually transmitted infections (19) 63%, and only (11) 37% did not. Even if most of pregnant women were able to identify signs and symptoms of sexually transmitted infections, the number that was not able to identify them was also high enough if the main aim is to prevent these drastic infections.

They fail to report their problems immediately to the health professionals, and when they come forward for help the infection has advanced and difficult to treat.

**ITEM 27 SIGNS AND SYMPTOMS MENTIONED BY
RESPONDENTS**

Nineteen 63% of respondents who knew the signs and symptoms were asked to mention them in order to supply more information where necessary.

Table 4.15 Signs and Symptoms Mentioned by Respondents

SIGNS AND SYMPTOMS	FREQUENCY	PERCENTAGE
Genital Warts	1	4%
Genital Sores	4	13%
Vaginal Discharges	10	34%
Burning of Urine	2	7%
Low Abdominal Pain	2	7%
Not Applicable	11	37%
TOTAL	30	100%

The above results revealed that the majority of pregnant women knew the signs and symptoms of vaginal discharges (10) 33%, followed by genital sores (4) 13%, burning of urine (2) 7%, low abdominal pain (2) 7% and only (1) 3% knew genital warts. (11)37% of respondents did not participate because they indicated that they had difficulty in identifying signs and symptoms of sexually transmitted infections.

These results show that although respondents knew the signs and symptoms of sexually transmitted infections they did not know all of them. Each person knew only one or two signs and that was not enough. It could be argued that pregnant women required more information, which will help them to cope with their health problems (Myles 1989:275). Dangor and Monedi (2003:6), Sellers 1993:1083, and Beicher and

Mackay (1988:238) all agreed with the above signs and symptoms of sexually transmitted infections.

ITEM 28 UNDERSTANDING OF RESPONDENTS AS TO HOW TO TREAT OR MANAGE SIGNS AND SYMPTOMS

This question was asked to find out if the respondents were taught how these signs and symptoms were treated or managed.

Figure 4.13 Respondents understand on how to treat or manage the signs

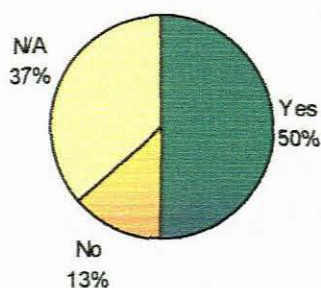


Figure 4.13 above indicates that of the women who knew the signs and symptoms (15) 50% knew how to treat and manage those signs, whilst the remaining (4) 13% did not know how to treat and manage these. Eleven 37% of respondents did not participate because they did not understand signs and symptoms.

These results show that, although the majority of women knew how to treat and manage the possible signs of sexually transmitted infections, there is a great need of further health education. There are those who did not know how to manage the signs and symptoms that might delay treatment and this results in many complications, for instance, if women infected with vaginal discharge do not know the treatment. They

will fail to take it well, will not get better, and end up with reinfection or drug resistance.

ITEM 29 BLOOD TAKEN IN CLINIC TO TEST FOR SEXUALLY TRANSMITTED INFECTIONS

Figure 4.14 Blood tests done

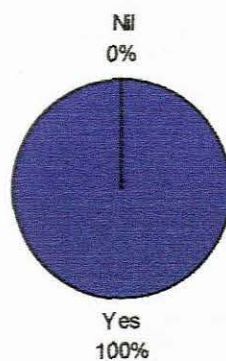


Figure 4.14 illustrates that blood tests were done on all pregnant women (30) 100%. This is a sign that screening of pregnant women for sexually transmitted infections was excellent.

ITEM 30 PRE-TEST COUNSELLING DONE TO RESPONDENTS

Table 4.16 Pre-test Counseling done

PRETEST COUNSELING	FREQUENCY	PERCENTAGE
Yes	30	100%
No	-	0%
TOTAL	30	100%

The above table demonstrates that pre-test counseling was done to all pregnant women (30) 100%. The results indicate that all pregnant women were told about the blood to be taken, this was done in order to prepare them for any possible results and prevent shock.

ITEM 31 TYPES OF BLOOD TESTS THAT WERE DONE AND RESULTS

Table 4.17 Blood Tests done and Results

BLOOD TAKEN FOR	RESULTS	FREQUENCY	PERCENTAGE
1. WR (Widal)	Non Reactive	27	90%
	Reactive	3	10%
TOTAL		30	100%
2. Haemoglobin	Weak	8	27%
	Strong	22	73%
TOTAL		30	100%
3. HIV	Positive	15	50%
	Negative	15	50%
TOTAL		30	100%

The Table above reveals that blood tests taken for WR for most women were non-reactive (27) 90% and only (3) 10% were reactive.

The majority of respondents had strong haemoglobin results (normal) (22) 73% and only (8) 27% who had weak blood results. In blood taken for HIV tests, half of pregnant women were positive (15) 50% and the other half negative (15) 50%.

These results show that pregnant women infected with sexually transmitted infections were also HIV positive. The pregnant women whose WR results were reactive had intramuscular antibiotics of x3 doses.

ITEM 32 WHO GAVE RESULTS TO RESPONDENTS

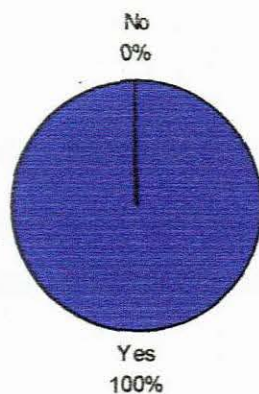
Table 4.18 Who gave the results to respondents

RESPONSE	FREQUENCY	PERCENTAGE
Nurse	30	100%
Doctor	nil	0%
TOTAL	30	100%

The Table above indicates that all pregnant women were given blood results, by nurses, (30) 100%. These results show that the other health team members were not involved in giving blood results. The doctors need to participate in issuing of results so that they can further give health education to mothers for effectiveness.

ITEM 33 POST TEST COUNSELLING DONE TO RESPONDENT

Figure 4.15 Post Test Counselling done



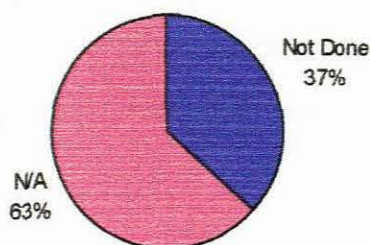
The above diagram illustrates that post test counseling was done with all pregnant women (30) 100%. Post test counseling is very important, each pregnant woman should be told about their blood results, especially their HIV status and WR because

these are major problems that affect pregnant women. Fortunately the respondents under study were satisfied.

ITEM 34 BLOOD TAKEN AND COUNSELLING DONE WITH PARTNERS

This question was included in order to determine if the blood tests and counselling were done, for HIV and WR from (3) 10% sexual partners and (15)50% pregnant women who were reactive and positive respectively.

Figure 4.16 The Blood Taken and Counselling done to Partners



The above Figure 4.16 indicates that blood test and counselling was not done to the sexual partners who were WR reactive and HIV positive. This was indicated earlier in this study, that pregnant women had difficulty in bringing their partners for treatment and for health education.

These results shows that there is a great need for health professionals to encourage pregnant women to involve their partners in their health education about the danger signs of sexually transmitted infection, the importance of taking blood for WR and

HIV testing in order to be able to protect themselves from infections and complications.

ITEM 35 NUMBER OF SEXUAL PARTNERS OF RESPONDENTS

Table 4.19 Number of Sexual Partners of respondents

SEXUAL PARTNERS	FREQUENCY	PERCENTAGE
1	30	100%
2 and Above	nil	0%
TOTAL	30	100%

The table above reveals that pregnant women infected with sexually transmitted infections had only one partner each (30) 100%. The results are surprising because most of the pregnant women were reinfected after previous health education. If this can be practiced by every pregnant woman sexually transmitted infections can be prevented. It could be that their male partners had other partners of which pregnant women were not aware.

Motjuwadi (2003:73) emphasizes the option of sticking to one sexual partner as a preventive measure.

SECTION G

HEALTH EDUCATION HISTORY ON PREVENTION OF STI's

This section was included to determine if adequate health education about sexually transmitted infections was given to pregnant women attending the antenatal clinic. The increase of incidence of sexually transmitted infections might be due to ineffective health education thus resulting in infection and reinfection.

ITEM 36 HEALTH EDUCATION GIVEN TO THE RESPONDENTS

Table 4.20 Health education given to the respondents

TOPICS OF HEALTH EDUCATION	FREQUENCY	PERCENTAGE
Nutrition	18	60%
Danger of STI's	25	84%
HIV/AIDS	30	100%
PMTCT and Counselling	30	100%
Breastfeeding	29	97%

The above table indicates that all pregnant women were given health education about HIV/AIDS (30) 100%, PMTCT and counselling, followed by those who were given information about breastfeeding when HIV positive (29) 97%, danger signs of sexually transmitted infection (25) 83%, and (18) 60% given health education on nutrition.

These results reveals that all pregnant women (30) 100% had adequate information about HIV/AIDS, and prevention of mother to child transmission and counselling, meaning that they knew how to prevent HIV infections. Those who were already HIV

positive knew how to take care of themselves in order to remain healthy, like reporting to the doctor when sick, for early treatment.

97% of pregnant women were told about the importance of breastfeeding. This might decrease the risk of infection to the baby because breastmilk has all the nutrients and antibodies which fight against infections.

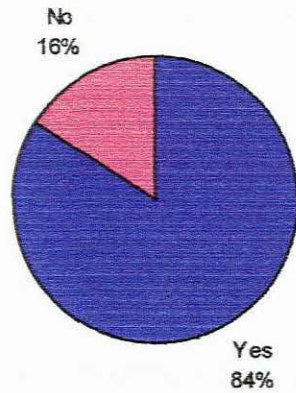
Twenty five or 83% of pregnant women were given information about danger signs of sexually transmitted infections which will enable them to prevent the occurrence, and if already infected will be able to prevent reinfection by use of preventive measures like wearing of condoms when having sexual actions and taking medication as ordered to prevent complications.

Only (18)60% were given health education about nutrition, they knew and understood the importance of a nutritious diet (with all nutrients), especially for those who were HIV positive because nutritious foods boost the immune system and help a person remain healthy. Motjuwadi (2003:73) commented that sexually transmitted infections are completely preventable; this may be through abstinence from sexual intercourse or by sticking to one sexual partner.

ITEM 37 - INFORMATION ABOUT PREVENTION OF STI's

This question was included in order to find out if the pregnant women were given information specifically on how to prevent sexually transmitted infection. If mothers were not educated this might be the cause of increase of incidence of sexually transmitted infections.

Figure 4.17 Information given about prevention of STI's



The above Figure reveals that (25) 84% of pregnant women infected with sexually transmitted infection were given information about the prevention of sexually transmitted diseases, and only (5) 16% were not given any.

These results show that the majority of pregnant women knew the preventive measures which would enable them to prevent reinfection, whilst 16% who were not told about preventive measures might be prone to reinfection and complications due to lack of knowledge.

ITEM 38 PREVENTIVE MEASURES GIVEN FOR STI's

Respondents were asked to mention a few preventive measures that were given by the nurses in the clinic.

Table 4.21 Preventive measures given for STI's

PREVENTION	FREQUENCY	PERCENTAGE
To Condomise	24	80%
Abstinence	1	4%
Not Applicable	5	16%
TOTAL	30	100

The table above reveals that the majority of pregnant women were told about the importance of using condoms (24) 80%, (1) 4% was told about abstinence. Five or 17% were not involved in this question/item because they were not educated about prevention of sexually transmitted infections. This reveals that even though the majority of pregnant women knew that it was important to condomise they did not know other preventive measures like importance of sticking to one sexual partner in order to prevent cross transmission and reinfection, and importance of good personal hygiene and might be prone to more infections which might be difficult to treat.

ITEM 39 PERSON WHO SUPPLIED INFORMATION ABOUT STI's

This item was included in order to determine if all the members of the health team were involved in health education programs about sexually transmitted infections.

Table 4.22 Person who supplied information about STI's

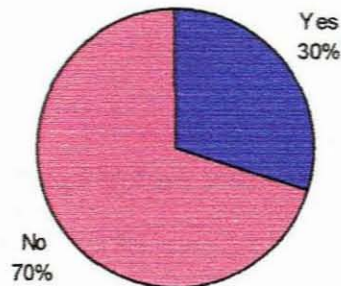
PERSON	FREQUENCY	PERCENTAGE
Nurse	25	84%
Doctors	NIL	0%
Partners	NIL	0%
Not Applicable	5	16%
TOTAL	30	100%

This table indicates that health education about sexually transmitted infections was given to pregnant women only by nurses (25) 84%, and nothing was given by the doctors and partners, the other women (5) 16% were not included in this question because they were not given a health talk about prevention of sexually transmitted infections at all. This shows that the other health care workers were not involved in giving of health education which was supposed to be a team approach. This might result in failure in providing comprehensive measures in the fight against these infections.

ITEM 40 INCLUSION OF THE SEXUAL PARTNER IN HEALTH EDUCATION

This item was included to find out if the partners were also given adequate health education about sexually transmitted infections. If the partners were not given health education they will not be able to adhere to preventive measures and that might be the cause of reinfection.

Figure 4.18 Inclusions of the Sexual Partner in Health Education



The Figure above indicates that the majority of partners were not given health education about sexually transmitted infections (21) 70%, and only (9) 30% partners were given some.

This reveals that partners who were not educated did not know the danger signs of sexually transmitted infections, preventive measures, treatment and their complications to the pregnant women and the unborn baby. Due to lack of knowledge the partner will continue engaging in unsafe sexual relations without the use of condoms and will not bring his sexual partners for treatment, thus increasing the number of people infected with sexually transmitted infections.

ITEM 41 AWARENESS OF FREE HEALTH CARE SERVICES

This question was asked in order to detect the exact number of respondents who knew that health care services are free of charge in South Africa for the treatment of sexually transmitted infections. Only the people who do not know about free health services fail to attend clinics for treatment saying that they don't have funds for medication.

Table 4.23 Awareness of Free Health Care Services

RESPONSE	FREQUENCY	PERCENTAGE
Yes	21	70%
No	9	30%
TOTAL	30	100%

The above table shows that most pregnant women were aware of free health services (21) 70%, and others were not (9) 30%.

These results indicate that even though most women were aware of free health services others were not, and the sexual partners of those women who were not aware might not go to clinic for treatment because of not having money. This will result in delayed treatment and reinfection of the women by STI's.

ITEM 42 PERSON THAT PROVIDED INFORMATION ABOUT FREE HEALTH SERVICES

This item was included in order to see if all the health care workers were involved in health education of pregnant women.

Table 4.24 Provision of respondent with information

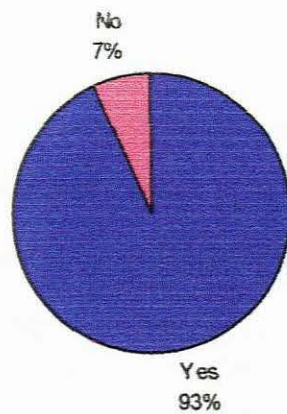
RESPONSE	NUMBER	PERCENTAGE
Nurse	21	70%
Doctor	Nil	0%
Partner not applicable	Nil	30%
TOTAL	22	100%

The above table indicates that all the (21) 70% pregnant women were given information about free health services by the nurses only, and no information was given by the doctors and partners.

These results show that there is a need for the doctors and partners to be included in health education programme so that they will be able to tell the people about free health services for sexually transmitted infections. By so doing the infected population will be able to seek medical aid sooner. This will then result in the reduction of incidence of sexual transmission infections in South Africa.

ITEM 43 RESPONDENT TOLD ABOUT BREAST FEEDING WHEN HAVING STI'S

Figure 4.19 Respondent told about breast feeding when having STI's



The above figure shows that most of the respondents were told about breast feeding when having sexually transmitted infections (28) 93%, and others were not told (2)7%.

These results reveal that most pregnant women knew about breast feeding when suffering from sexually transmitted infections. Those who were not given this

information might stop breast feeding and then cause nutritional problems for the baby.

ITEM 44 WHAT WAS SAID ABOUT BREAST FEEDING WHEN HAVING STI'S

Table 4.25 What was said about breastfeeding when having STI's

RESPONSE	NUMBER	PERCENTAGE
To continue with breast feeding	13	43%
If HIV positive to breast feed for 6 months exclusively	12	40%
Forgotten	5	16%
Not applicable	2	7%
TOTAL	30	100%

The above Table shows that most respondents knew what to do when breastfeeding when having sexually transmitted infections (13) 43%, followed by those who were told to breastfeed exclusively when having HIV positive for 6 months (12)40%. The others had forgotten what was said (5)17%.

These results reveal that respondents were well informed about breastfeeding but for a few who had forgotten. Even though breastfeeding when HIV positive is still a controversy, it is encouraging that they knew something about it. Especially that they should not give both breastmilk and formula milk, which is contraindicated because mixfeeding predisposes the baby to HIV infection.

ITEM 45 RESPONDENT TOLD ABOUT CONTRACEPTIVES

Table 4.26 Respondent told about contraceptives

RESPONSE	NUMBER	PERCENTAGE
Yes	21	70%
No	9	30%
TOTAL	30	100%

The above Table reveals that most respondents were told about contraceptives (21) 70%, others were not told (9)30%.

The results indicate that those who were not told about contraceptives may be prone to reinfection because they would be ignorant about it as there are many methods of contraception, of which condomisation is the best.

ITEM 46 WHAT WAS SAID ABOUT CONTRACEPTIVES

Table 4.27 What was said about contraceptives

RESPONSE	NUMBER	PERCENTAGE
Contraceptives are good for spacing	8	26%
To do sterilization if HIV positive	5	16%
Told about pill and injection method	7	24%
To use condom as method	1	4%
Not applicable	9	30%
TOTAL	30	100%

The above Table indicates that (18)26% respondents understand that contraceptives are good for spacings, followed by those who were told about the pill and injection method (7)24%, (5)16% sterilization if HIV positive (1) 4% was told to use a condom as method of contraception and not applicable since they were not told.

CONCLUSION

In this Chapter data collected was analysed, interpreted and discussed. In the next chapter summary, conclusion and recommendations will be discussed.

RESPONSE	NUMBER	PERCENTAGE
Contraceptives spacing good for spacing	18	26%
Told about pill and injection method	7	24%
Told about sterilization if HIV positive	5	16%
Told to use a condom	1	4%
Not applicable since they were not told	1	1%
TOTAL	32	100%

CHAPTER 5

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 INTRODUCTION

In this chapter a summary of the whole study, including the conclusion which the researcher has drawn from the research findings, and recommendations done, which may serve as a guideline for further scientific enquiry into the subject investigated, has been done.

5.2 SUMMARY OF FINDINGS

The purpose of the study was to evaluate the effectiveness of health education given to pregnant women with sexually transmitted infections.

The study was confined to District 29 of KwaZulu Natal in South Africa. Thirty mothers were selected as participants in this study, using systematic random sampling. Data was collected face to face using interview schedules.

5.3 OBJECTIVES OF THE STUDY

Objectives of the study were:-

Objective 1

To investigate how effective the health education is given to pregnant women with sexually transmitted infections.

Objective 2

To identify factors contributing to failure or effectiveness of health education given to pregnant women with sexually transmitted infections.

Objective 3

To make recommendations to improve health educational programmes for pregnant woman with sexually transmitted infections.

OBJECTIVE 1

5.3.1 EFFECTIVENESS OF HEALTH EDUCATION

The following information was identified as pointing out the effectiveness of health education to pregnant women with sexually transmitted infections.

- Sixty three percent of pregnant women were able to identify signs and symptoms and 50% knew how to manage them.
- All the pregnant women, 100%, gave blood for investigation, none of them acted negatively after doing pre and post-counselling.
- Fifteen 50% of pregnant women who did not know their HIV status discovered they were infected and health education was given appropriately.
- It could be argued that in spite of pregnant women having sexually transmitted infections, they insisted on having one sexual partner each as advised in the clinic. If this is true, it may be an indication that health education they received on sexuality was effective.
- All the pregnant women, 100%, were given health education on HIV/AIDS , PTMTCT, 97% on danger signs of sexually transmitted infections, and breastfeeding and 60% on nutrition.
- Eighty-four percent were given information about measures taken in the prevention of sexually transmitted infections.

- Most of the infected women, 70%, were made aware that health services for sexually transmitted infections were free of charge.
- Ninety-three percent were given enough information about breast-feeding when infected by sexually transmitted infection and methods of contraception.

5.3.2 INEFFECTIVENES OF HEALTH EDUCATION

- From 84% of pregnant women who attended the antenatal clinic with their previous pregnancies and received health education, 70% were not infected and only 13% were infected with sexually transmitted infections, but with the present pregnancies in the study the number increased because all of them, 84% were infected.
- Sixty-three percent of respondents who could identify signs and symptoms of sexually transmitted infections mentioned only a few of these and 13% did not know how to manage or treat them when occurring.
- Health education on the prevention of sexually transmitted infections, giving of blood results, giving information about free health services, breast-feeding, contraceptions and nutrition was all given by nurses, doctors and partners were not involved.
- Ten percent partners of pregnant women who were WR reactive 50% who were HIV positive were not counselled and had taken blood immediately. This might be a problem because they would continue having sexual activities without protection and become more infected.
- The majority, 70%, of sexual partners of the respondents were not included in the health education on prevention of sexually transmitted infections thereby predisposing them to infection and reinfection.

The above findings confirmed that health education on sexually transmitted infections was not always effective.

OBJECTIVE 2

5.3.3 FACTORS CONTRIBUTING TO THE INEFFECTIVENESS OR FAILURE OF HEALTH EDUCATION TO PREGNANT WOMEN WITH SEXUALLY TRANSMITTED INFECTIONS

The following factors were discovered as factors that contributed to ineffectiveness of health education.

Age Group

The ages of the respondents contributed to the incidence of sexually transmitted infections since 74% of them were still young and sexually active, between 20-34 years.

Marital Status

Most of the respondents, 80%, were single. Single women have a tendency of having more than one partner because of their freedom, making them prone to sexually transmitted infections, unlike the married ones.

Area of Residence

Fifty percent of the respondents were from the rural areas where there are poor hygiene practices. They have a tendency of using witchcraft material and love potions which are not clean, predisposing them to sexually transmitted infections.

Low Standard of Education

Most of the pregnant women had a low standard of education, 37% had primary school education, resulting in lack of understanding of health education provided by the health professionals in the clinics.

Unemployment

Sixty-three percent of the respondents were unemployed. So they might have been exposed to sexually transmitted infections while looking for financial support from their boyfriends, of which it could happen that they had more than one partner. As indicated in this study 37% of them received financial support from their boyfriends.

Income Status of the Partners

The total income status of the partners was also very low since 31% were working in low paying jobs like mining, drivers and factories and 63% were not working. This might have contributed to the pregnant women seeking for more financial help from other partners. There was no relationship found between a partner traveling long distances and occurrence of sexually transmitted infections since only 7% were (found) traveling long distances.

Clinic Attendance

Even if 84 % of the respondents attended ante-natal clinic, 37% of them only started attending clinics during the second trimester of pregnancy instead of in the first trimester with their previous pregnancies, which was almost the same with their present pregnancies where 56% started the clinic at the same time, second trimester.

Treatment of the partner

Most of the respondents, 60%, did not inform their partners about coming for treatment, thereby predisposing them to reinfection after treatment. As a result they experienced different problems which are:

- 60% had pathological discharges
- 6 genital herpes
- 3 genital warts
- 3 genital sores

Understanding of the Causes and Contributory Factors of Sexually transmitted infections

Sixty percent of the respondents stated that they did not understand the causes and predisposing factors of sexually transmitted infections. This might have contributed to the reoccurrence of these infections.

The above mentioned factors are enough to confirm the reasons why pregnant women continued to suffer from sexually transmitted infections in spite of extensive health education they received and treatment offered.

OBJECTIVE 3

5.3.4 RECOMMENDATION TO IMPROVE HEALTH EDUCATION

Recommendations made to improve the ineffectiveness of health education to pregnant women were the following.

- All health professionals involved in the provision of health education to pregnant women during the ante-natal period should emphasise that everybody should come to the clinic early, during the first trimester, for early prevention, detection and treatment of sexually transmitted infections
- Health professionals to use visual teaching aids, when giving education about sexually transmitted infections, because seeing is believing. For example, posters, drawings, models, videos and other teaching aids.
- Improved methods of health education should be used like group discussions, role play, games and others.
- Different evaluation methods should be used by health professional to check the achievement of objectives and effectiveness of health education given to pregnant women like critical thinking skills, reflective methods, demonstrations, especially the use of the condom, asking questions and other methods for effectiveness.

- Health professionals to encourage pregnant women to bring their sexual partners for treatment and health education for effectiveness and prevention of reinfection and complications.
- Daily health education programmes to be done including the late comers, using different languages, according to the needs of the particular group of pregnant women.
- All the health professionals to be involved in giving health education on prevention and treatment of sexually transmitted infections, not the nurses only. *Partners, doctors and all other categories of staff to be involved.*
- More counsellors should be trained on different topics and given periodical in-service education in order to give up to date information to pregnant women with sexually transmitted infections.

CONCLUSION

The study revealed that health education given to pregnant women with sexually transmitted infections was not always effective.

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ANNEXURE "1"

QUESTIONNAIRE

QUESTIONNAIRE

You are kindly requested to answer the following questions. Your answers will provide information about effectiveness of health education to pregnant women with sexually transmitted infections.

Information obtained will be confidential and no names will be revealed.

Instruction

Please make a cross on the appropriate answer, and explain when asked eg.

Sex: female
 Male

SECTION A PERSONAL PARTICULARS

- | | | | |
|----|-------------------|--------------|--------------------------|
| 1. | Age Group | 12-19 | <input type="checkbox"/> |
| | | 20-34 | <input type="checkbox"/> |
| | | 35 and above | <input type="checkbox"/> |
| 2. | Marital Status | Single | <input type="checkbox"/> |
| | | Married | <input type="checkbox"/> |
| | | Divorced | <input type="checkbox"/> |
| | | Widowed | <input type="checkbox"/> |
| 3. | Area of Residence | Urban | <input type="checkbox"/> |
| | | Sub-urban | <input type="checkbox"/> |
| | | Rural | <input type="checkbox"/> |

4. Number of Children. _____

SECTION B EDUCATIONAL INFORMATION

5. Standard of Education None
 Primary Level
 Secondary Level
 High School
 Tertiary Level

SECTION C EMPLOYMENT HISTORY

6. Are you working Yes
 No

7. If No, who support you financially?
 Parent
 Husband
 Boyfriend
 Other (specify) _____

8. Type of Job for the Spouse Driver
 Mineworker
 Professional
 Factory Worker
 Other (specify) _____

9. Does the partner travel for long distance away from home?
 Yes
 No

SECTION D HEALTH HISTORY

4.1 History of Previous Pregnancies

10. Did you attend antenatal clinic with previous pregnancy?

Yes
No

11. If Yes, when did you start clinic visits?

1-3 months
4-6 months
7-9 months

12. Did you have a problem with your previous pregnancy?

Yes
No

13. If yes, what type of sexually transmitted infections occurred?

14. Did you have your partner treated also?

Yes
No

SECTION E HISTORY OF PRESENT PREGNANCY

15. Duration of Pregnancy?

16. When did you start clinic?

1-3 months
4-6 months
7-9 months

17. Number of clinic visits

1-3 times

4-6 times

7 and above

18. Do you have any problem with your pregnancy?

Yes

No

19. Treatment provided to respondents

Yes

No

20. Treatment ordered for respondents

21. Did you complete treatment ordered?

Yes

No

22. Did you have your partner treated?

Yes

No

23. If no, why was he not treated?

SECTION F HISTORY OF ILLNESS

24. Do you understand its cause and contributing factors of sexually transmitted infections?

Yes
No

25. If yes, what are the causes and contributory factors?

26. Can you identify the signs and symptoms of S.T.I.?

Yes
No

27. If yes, what are they?

28. Did you understand how to treat or manage signs and symptoms?

Yes
No

29. Did you have bloods taken in the clinic?

Yes
No

30. If yes, was the pre-test counseling done to you?

Yes
No

31. If yes, what tests were done and what were the results?

32. Who gave you the results?

Nurse

Doctor

Partner

33. Was post counseling done to you after the results?

Yes

No

34. Were bloods taken and counseling done to the partners?

Yes

No

35. How many partners do you have?

SECTION G HEALTH EDUCATION

36. What Health Education were you given?

➤ Nutrition

➤ Danger signs of S.T.I.'s

➤ HIV/AIDS

➤ PMT/CT and Counseling

➤ Breast feeding

37. Were you given information about prevention of S.T.I.'s

Yes

No

38. If yes, what measures were you told to take?

39. Who taught you about S.T.I.'s?

Nurse	<input type="checkbox"/>
Doctor	<input type="checkbox"/>
Partner	<input type="checkbox"/>

40. Was your partner included in health education?

Yes	<input type="checkbox"/>
No	<input type="checkbox"/>

41. Are you aware of free health services for S.T.I.s?

Yes	<input type="checkbox"/>
No	<input type="checkbox"/>

42. If yes, who provided you with this information?

Nurse	<input type="checkbox"/>
Doctor	<input type="checkbox"/>
Partner	<input type="checkbox"/>

43. Were you told anything about breastfeeding when you are having S.T.I.?

Yes	<input type="checkbox"/>
No	<input type="checkbox"/>

44. If yes, what did they tell you?

45. Were you told about contraception?

Yes	<input type="checkbox"/>
No	<input type="checkbox"/>

46. If yes, what was said?

ANNEXURE "2"

REQUEST FOR PERMISSION TO CONDUCT STUDY

P.O. Box 4650
Stanger
4450
21 April 2004

Attention: Mr Thrompe
Department of Health
P/Bag x 9051
Pietermaritzburg
3200

REQUEST FOR PERMISSION TO CONDUCT A RESEARCH PROJECT

Topic: Investigation for effectiveness of Health Education to pregnant women with sexually transmitted infections in District 29 of KwaZulu-Natal

Degree: M.Cur.

I hereby request permission to collect data for the above mentioned study in the following institutions:

1. Stanger Hospital
2. KwaDukuza Clinic

The study is for fulfillment of the requirements of M.Cur. Degree, at University of Zululand Durban- Umlazi Campus, Nursing Science Department.

The study is intended to improve maternal and child health care in the community of the above mentioned areas.

I enclosed the proposal, which give details of the proposed study and methodology.

A copy of the report will be forwarded to your department.

I shall be grateful if my request is successful.

Yours Faithfully



Thokozile Happiness Mweni
Student No. 966029

ANNEXURE "3"

PERMISSION GRANTED TO CONDUCT RESEARCH

PROJECT IN DISTRICT 29 KZN

PROVINCE OF
KWA-ZULU NATAL

HEALTH SERVICES

ISIFUNDAZWE
SAKWAZULU-
NATALI

EZEMPILO

PROVINSIE VAN
KWAZULU NATAL

GESONDHEIDDIENSTE



TEL: (032) 4376200

DR.A.J. MANSVELDER

STANGERPROVINCIALHOSPITAL

PRIVATE BAG X10609
STANGER

FAX:(032) 552 2767

E.MAIL ADDRESS:
H993262@DOHKO.KZN.TL.GOV.ZA

ENQUIRIES: MRS. T.T. SITHOLE

EXT: 6007

16 AUGUST 2004

PERMISSION GRANTED TO CONDUCT RESEARCH
ATTENTION: MS. T.H.MTHEMBU

INDEX REF: HML/02/08/04

Dear Madam,

**RE: INVESTIGATION INTO EFFECTIVENESS OF HEALTH EDUCATION
TO PREGNANT WOMEN WITH SEXUALLY TRANSMITTED
INFECTIONS**

Please be advised that your request regarding doing above-mentioned investigation is accepted. Thank you for the interest shown in our institution.

Thank you,

HOSPITAL MANAGER

ANNEXURE "4"

REQUEST TO COLLECT DATA – STANGER HOSPITAL

P. O. Box 4650
Stanger
4450

18 June 2004

The Hospital Manager
Stanger Hospital
Private Bag X10609
Stanger
4450

Dear Sir

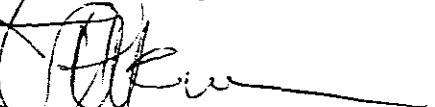
RE: REQUEST FOR PERMISSION TO CONDUCT A RESEARCH PROJECT

TOPIC: Investigation into the effectiveness of Health Education given to pregnant women with sexually transmitted infections in the District of Kwazulu/Natal

I hereby request permission to collect data for the above-mentioned study in your Hospital. The study is for fulfilment of the requirements of the MCur Degree at the University of Zululand, Durban Umlazi Campus, Nursing Science.

I would be grateful if my request is successful

Yours faithfully



Thokozile H. Mthembu

Student Number: 966029

ANNEXURE "5"

PERMISSION

COMMUNITY SERVICES

LAVOPIERRE BUILDING
INDUSTRIA CRESCENT
P O BOX 72
STANGER, 4450



TEL.NO.: (032) 437 5000
Ext.5009
FAX NO.: (032) 551 5500

ATTENTION MRS T H MTHEMBU
STUDENT NO.: 966029

Our Ref

N M MANQELE/EN/

Your Ref.

15-10-2004

Dear Sir/Madam

RE: INVESTIGATION INTO EFFECTIVENESS OF HEALTH EDUCATION TO PREGNANT WOMEN WITH SEXUALLY TRANSMITTED INFECTIONS

It is my pleasure to accept your proposal.

Your interest in this institution is appreciated.

Thank you.

Yours faithfully

N M MANQELE
ASSISTANT DIRECTOR: PRIMARY HEALTH CARE

ANNEXURE "6"

REQUEST TO COLLECT DATA - KWADUKUZA CLINIC

F. O. Box 4650
Stanger
4450

18 June 2004

The District Manager
KwaDukuza Clinic
4450

Dear Madam

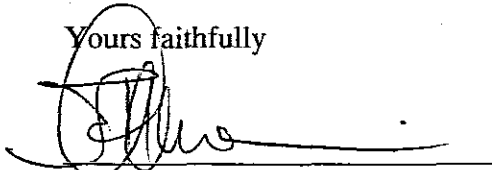
RE: REQUEST FOR PERMISSION TO CONDUCT A RESEARCH PROJECT

TOPIC: Investigation into the effectiveness of Health Education given to pregnant women with sexually transmitted infections in the District of Kwazulu/Natal

I hereby request permission to collect data for the above-mentioned study in your Clinic. The study is for fulfilment of the requirements of the MCur Degree at the University of Zululand, Durban Umlazi Campus, Nursing Science.

I would be grateful if my request is successful

Yours faithfully



Thokozile H. Mthembu

Student Number: 966029