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Full Length Research Paper

Psychological effects and experiences of menopausal women in a rural community in Niger Delta region of Nigeria

Jack-Ide I.O.[1]*, Emelifeonwu E.A.[1] and Adika A.V[2].

[1]Department of Mental Health and Psychiatric Nursing, Faculty of Nursing, Niger Delta University, Wilberforce Island, Bayelsa State, Nigeria.
[2]Department of Medical-Surgical Nursing, Faculty of Nursing, Niger Delta University, Wilberforce Island, Bayelsa State, Nigeria.

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Menopause is a period of natural physiologic adaptation which occurs in women when the finite numbers of ovarian follicles are depleted due to decreased levels of reproductive hormones. This decrease in reproductive hormone levels may be mild and present with no obvious disturbances in some women while in others, severe and unbearable health and psychological challenges may demand medical intervention. This study is aimed to explore the psychological effects and health challenges of menopausal symptoms in middle aged women in a rural community of Nigeria. Utilizing a random sampling technique, one hundred and twenty middle aged women (n=120) age 40 to 55 years were recruited for the study. The descriptive survey used a semi structured questionnaire to obtain data from consenting participants. Result shows that women experience various psychological challenges: 77 (64.2%) expressed feelings of sadness and 68 (56.7%) felt easily irritated. Health challenges were hot flushes, night sweats, fatigue, low libido, dizziness, weight gain, irregular menstrual period, arthritis and heart problems. There is need for women to be educated prior to this period and health care providers should communicate optimally, support and empower middle-aged women through this period of transition.

Key words: Menopause, transition, middle-aged, psychological effects, health challenges.

INTRODUCTION

Menopause is a natural phenomenon which occurs in all women when their finite number of ovarian follicles are depleted as a result of a fall in oestrogen and progesterone level with an increase in luteinizing hormone (LH) and follicle stimulating hormone (FSH) response (Laurence et al., 2011). During this stage, menstruation becomes erratic and eventually stops and there are a number of secondary effects which are known as menopausal symptoms (Nelson, 2008).

All healthy women will transit from a reproductive or

*Corresponding author. E-mail: izibelokojackide@ymail.com

premenopausal to a postmenopausal state (Grady, 2006; Soules, 2005). Women in menopausal transition commonly report a variety of symptoms including vasomotor symptoms (hot flushes and night sweats), vaginal symptoms, urinary incontinence, trouble sleeping, sexual dysfunction, depression, anxiety, labile mood, memory loss, fatigue, headache, joint pains and weight gain (Grady, 2006). A woman's natural reproductive life cycle represents a higher risk of the onset of mental health issues as physical changes, hormonal fluctuations and life-altering events ensue. Psychosocial aspect of midlife and aging affecting quality of life, include personal and cultural attitudes towards menopause, aging and psychological issues (Eden and Wylie, 2009). Avis et al. (2004), noted that women's attitude toward menopause and aging will have impact on health seeking behavior, perceived quality of life and sexual practices. For many women, the menopausal transition is a troublesome period of life, often associated with decreased well-being and a number of symptoms. Besides the hormonal changes, many other factors such as psychological, sociological and lifestyle factors affect how women perceive their menopause.

In a study conducted in Benin City Nigeria by Ande et al. (2011), reported that menopause was considered a normal event by 97.4% of the women while 2.6% believed it was a disease condition. It did not affect their relationship with their spouse or children. 18.8% of the participants adjusted well to menopause and none of the women studied revealed any serious maladjustment to the events of menopause. However, in another study by Nkwo and Onah (2008) on positive attitude to menopause and improved quality of life among Igbo women in Nigeria, reported that, some societal privileges enjoyed by menopausal women in some communities tend to modulate the expression of menopausal symptoms, they do not however eliminate them. Research examining cross-cultural symptoms suggests that menopausal experiences vary among societies and groups (Anderson et al., 2004; Dennerstein et al., 2000). It is unclear whether reported menopausal differences among ethnicities relate to variations in occurrence, perception, or reporting of symptoms (Crawford et al., 2008; Avis et al., 2009) or to methodologic challenges of cross cultural inquiry. Therefore, this study aims to explore the menopausal experiences of rural women from Amassoma in Niger Delta region of Nigeria.

METHODOLOGY

This is a descriptive cross-sectional survey, the target population for this study are middle aged (between age 40 to 55 years) rural women. The inclusion criteria are middle aged women experiencing peri-menopausal and post-menopausal symptoms. The study tool was a carefully designed, tested, self-structured questionnaire developed by the researchers to elicit information aimed at meeting the criteria and purpose of the study. The validity of the instrument was ascertained from the information gathered from the literatures that met the study criteria and the questionnaire suitability and its applicability for the study gave credibility of the instrument. The reliability of instrument was determined through a test-retest method involving carrying out a pilot study using 20 questionnaires in a nearby community (Ogobiri) of the same local government as Amassoma and including newly observed facts while discarding ambiguous items of the initially constructed questionnaire. The sampling technique adopted for this study was a purposive and snow balling approach. The questionnaire was administered face to face to all respondents (August to September, 2013) and retrieved immediately by the investigators. The questionnaire was designed to obtain quantitative data and analysis was done using descriptive statistics. Categorical variables are expressed as frequency (percentage) and continuous variables as means (±Standard Deviation; SD) (statistical package for social sciences (SPSS) version 17 Chicago IL.).

Ethical consideration

A written letter was sent to the community leader requesting permission to conduct the study. The researchers were invited for an interactive meeting with the chiefs and compound heads. Thereafter, approval to conduct the study was given by the community ruler (king). Informed consent to participate in the study was obtained after the purpose of the study was explained to the participants and confidentiality was assured before issuing the questionnaire.

RESULTS

A total of 300 middle aged women were identified, out of which 120 participants respondents were randomly selected from the various compounds (Ama) through the community chiefs. The result and presentation of data were obtained.

Table 1 shows a total of one hundred and twenty (n=120), 86 (71.1%) women were peri- menopausal, that is, having irregular vaginal bleeding during the last 12 months and 34 (28.9%) women of the study population were classified as post-menopausal, that is, having no vaginal bleeding during the last 12 months were recruited for the study. The women's ages ranged from 40 and above 55 years with a mean of 49.8 ± 2.6. Most of the women 68 (56.7%) were married, 86 (71.1%) in polygamous relationship. Only twenty eight (23.3%) women had no formal education. The majority 110 (91.7%) were Christians, and 76 (63.3%) were employed. The incidence of menopausal complaints and percentage of women experiencing each symptom are shown in Table 2. Among Amassoma women, hot flushes was the most common complaints occurring in 77.5% of women, this compliant was followed by fatigue 75.8%, joint pain 70.8%, feelings of sadness 64.2% and anxiety 62.5%. Others symptoms experienced were forgetfulness 60.8%, reduced libido 60.0%, night sweat 59.2%, easily irritated 56.7%, vaginal dryness 37.5%, urinary frequency 28.3% and headache 24.2%.

Table 3 shows the strategies used by middle age women to manage the symptoms of menopause. The most common strategies used by participants to manage

Table 1. Socio-demographic data of Respondents.

Variable	Frequency (f)	Percent (%)
Age		
40-44	16	13.3
45-49	22	18.3
50-54	38	31.7
≥ 55	44	36.7
Marital status		
Cohabitation	9	7.5
Married	68	56.7
Divorced	10	8.3
Widowed	33	27.5
Educational status		
No formal	28	23.3
Primary	47	39.2
Secondary	40	33.3
Tertiary	5	4.2
Type of marriage		
Polygamy	86	71.7
Monogamy	24	20.0
Not married	10	8.3
Religion		
Christian	110	91.7
African tradition (Pagan)	10	8.3
Employment status		
Housewife	9	7.5
Self employed	35	29.2
Employed	76	63.3

Table 2. Perceived menopausal symptoms by participants.

Symptoms	Frequency (f)	Percent (%)
Hot Flushes	93	77.5
Fatigue	91	75.8
Joint Pain	85	70.8
Feelings of sadness	77	64.2
Anxiety	75	62.5
Forgetfulness	73	60.8
Reduced libido	72	60.0
Night sweat	71	59.2
Easily irritated	68	56.7
Vaginal dryness	45	37.5
Urinary symptoms	34	28.3
Headache	29	24.2

Table 3. Strategies used by middle aged women in the management of menopausal symptoms.

Variable	Frequency	Percent
Spiritual remedy (prayer)	118	98.3
Having cold baths	101	84.2
Wearing of light clothing	87	72.5
Use of native herbs	87	72.5
Learning from experiences of older women	42	35.0
Visit to hospital	10	8.3

menopausal symptoms included: use of a spiritual remedy such as prayer 118 (98.3%), having cold baths 101(84.2%), wearing of light clothing 87 (72.5%), and the use of native herbs 82 (72.5%). Learning from older women's experiences was less common 42 (35.0%) and only 24 (20.0%) visited the hospital for treatment of headaches/joint pains. None of the study participants has used or heard of hormonal replacement therapy.

DISCUSSION

The majority of the rural women studied had poor knowledge about menopause and management of symptoms. The mean menopausal age of 49.8 ± 2.6 years in this sample are similar to urban females of other communities in Nigeria (Ande et al., 2011; Osinowo, 2003) and compares' favourably with studies that suggest women worldwide attain menopause aged 50 years (National Institutes of Health, 2005; Ayranci et al., 2010). The most prevalence menopausal symptoms reported in this study were hot flushes 77.5% and fatigue 75.8%. Ande et al. (2011), in a study conducted in Benin City Nigeria, found hot flushes and joint pain to be the most commonly reported menopause symptoms. Agwu et al. (2008) in South East of Nigeria also found the commonest menopausal symptom to be hot flushes. Similarly, evidence from Western studies demonstrates prevalence of hot flushes to be 69% in African American women (Im, 2009), 80% in Hispanic women (Schnatz et al., 2006), and 73.9% in Turkish women (Ayranci et al., 2010) but markedly lower in Japanese women with a range of 37 to 52% (Melby, 2005; Anderson et al., 2004). According to Grady (2006), hot flushes and night sweats are the main symptoms associated with menopause and are maximal in the late menopausal transition, occurring in about 65% of women. The prevalence of hot flushes and night sweats varies widely among women of different geographical regions and also ethnicity (Im, 2009). These differences may be due to the influence of a range of factors (Avis et al., 2001) including climate, diet, lifestyle, women's roles, and their attitudes regarding the end of the reproductive life and age.

In this study, vasomotor symptoms like aching joint pain (70.8%), and fatigue (75.8%) were commonly reported. The findings are similar with previous studies that observed joint pains as the most prevalent symptoms (Dienye et al., 2013; Haines, 2005). The prevalence of urinary symptoms, like urine leakage during laughing, coughing and increased urinary frequency were the least reported, present in only 8.3% of women studied. This finding is similar to a study from this region by Dienye et al. (2013) that observed 7.8% of study participants complained of urinary symptoms, Singh et al. (2005) and Kaur (2008) studied Chandigarh women and reported avery low prevalence of urinary symptoms 15.70 and 10.65% respectively. In contrast to the pattern of urinary symptoms described in the above studies, a study in Nigeria by Agwu et al. (2008) reported a higher incidence of urinary symptoms (38.7%), while Hafiz et al. (2007) study, reported a 35.2% prevalence of urinary symptoms in Australian women. The differences between the prevalence of urinary symptoms in these populations might be due to the women's attitude towards health and cultural inclination. Nkwo (2009), observed that in Nigeria, the widespread social inhibition and secrecy about female sexual and genital matters in most communities may be responsible for the low reporting of genital symptoms. Also, Nkwo and Onah (2008) reported that some societal privileges enjoyed by menopausal women in some communities tend to modulate the expression of these symptoms.

Women who reported feeling sad, anxious, forgetful and easily irritated are 64.2, 62.5, 60.8 and 56.7%, respectively. The incidence of psychological symptoms was higher in rural women of Amassoma when compared to reports of Igbo women in Enugu State (Nkwo, 2009) and women in Benin City (Ande et al., 2011). This may be due to the practice of plural marriage in the Niger Delta region of Nigeria (a man married to two or more women). Reporting of loss of libido (60.0%) in the present study was similar to the studies of Dienye et al. (2013) in Port Harcourt and Adekunle et al. (2001) in the western region of Nigeria. Most of these rural women (71.1%) are in polygamous marriages, and reported feelings of sadness (64.2%) for being perceived as too old to engage in sexual activity and are usually displaced by their husbands with younger wives who are more sexually active. This finding is in contrast to previous report from other regions of Nigeria where women tend to have a more positive attitude

towards menopause (Adekule et al., 2000; Ande et al., 2011). However, Nkwo (2009) argues that the widespread social inhibition and secrecy about female sexual and genital matters in most Nigerian communities may be responsible for the low reporting of sexual issues. The finding also confirms previous studies that women's attitude toward menopause and aging impacts on their perceived quality of life and sexual practices (Agwu et al., 2008; Avis et al., 2004).

Women of Amassoma use various strategies to control and manage the symptoms of menopause. The use of prayer as a form of spiritual therapy was reported in 98.3% of the women sampled. This is corroborated in this report where 42.6% of women in Enugu used prayer hoping the symptoms will go away (Nkwo, 2009). Similarly, 35.7% of Canadian menopausal women used prayer as a remedy (Lunny and Fraser, 2010). Bair et al. (2002), observed in their study in California that 48.4% of White, 28.9% of Japanese, and 24.6% of Chinese women reported the use of spiritual remedies. According to Mueller et al. (2001), religious involvement and spirituality are associated with better health outcomes, including greater longevity, coping skills, health-related quality of life, less anxiety, depression and suicide. Other methods of relief used in this study were having cold baths during hot flushes, wearing of light clothing and use of native herbs was (72.5%). It will be important to study these herbal remedies to identify the active agents that relieve menopausal symptoms.

Information about menopause of the studied sample shows that, 35.0% gained some sort of information from experiences of older women in the family/friends and only 8.3% visited the hospital to seek treatment for headaches or joint pains. None of these women have used or heard of hormonal replacement therapy (HRT), this may indicate lack of access to health facilities due to their living in rural regions. However, a study of women in Benin shows that 7.3% were aware of hormone replacement therapy but none were on or ever had HRT (Ande et al, 2011).

This finding suggests that majority lack information about menopause from health professionals. However, the women in this study perceived menopause as a natural change in their life that does not necessitate medical intervention or treatment. The finding is similar to the study of Ande et al. (2011) and Adekunle et al. (2000) which reveal that women rarely seek medical help for these menopausal symptoms in Nigeria, as menopause is considered as a normal physiological process.
However, the non-use of medical treatment may be connected to the poor or unavailability of basic health care services in rural communities, as such these women are left with no alternatives but to accept their fate and welcome these symptoms as a natural process towards cessation of menstrual periods and growing old.

Study limitation

The study was conducted in only one community therefore, it is difficult to generalize about the effects and experiences of menopause among Nigerian women. However, the major interest of this survey is the opportunity to offer more information on rural women's experiences of menopause. Further study using qualitative methodology with a wider population is suggested.

Nursing implication

This study has implications for research, practice and education. Nurses in carrying out their functions and activities in the community play an important role in community health practice, through health education programmes, Nurses can help to improve the knowledge of women about treatment available both natural and HRT, the signs and symptoms of menopause, how to seek prompt and appropriate care and support when the need arises. This study's findings are important and indicate cultural factors that may influence the experience of menopausal symptoms for the women of Amassoma. These findings, contributes to the knowledge required by health professionals and the women themselves, about culture and menopause that may influence the future care of menopausal women.

CONCLUSION AND RECOMMENDATION

The menopausal transition phase is a normal part of aging. Women during menopause experience psychological problems ranging from depression, anxiety, irritability and social isolation. Therefore, reassurance, care, support, counseling and health education are important during this period to prevent serious medical and mental health issues associated with menopausal transition, thereby, improving quality of life. In summary, the findings from the present study contribute significantly towards filling the gaps in knowledge about the way rural middle-aged women experience and manage menopausal symptoms.

The following recommendations were made from this study:

1. Women should be enlightened and prepared for the possible psychological, health and other symptoms that may arise during menopause.
2. Proper nutrition and dietary practices should be encouraged to ensure healthy living during this period.
3. Mild exercise should be encouraged and the avoidance of a sedentary lifestyle or living in isolation should be discouraged. This will help in coping with the challenges of this period.
4. Provision of HRT to improve quality of life and sexuality in symptomatic post-menopausal women
5. An in-depth qualitative study is suggested to explore the experiences of women's sexual satisfaction in a

polygamous marriage.

Conflict of Interests

The author(s) have not declared any conflict of interests

REFERENCES

Adekunle O, Fawole AO, Okunlola MA (2000). Perception and attitudes of Nigerian women about menopause. J. Obstet. Gynaecol. 20:525-529.

Ande AB, Omu OP, Olagbuji NB (2011). Features and perceptions of menopausal women in Benin City, Nigeria. Ann. Afr. Med. 10(4):300-304

Agwu UM, Umeora OUJ, Ejikeme BN (2008). Patterns of menopausal symptoms and adaptive ability in a rural population in South-east Nigeria. J. Obstet. Gynaecol. 28(2):217-221.

Anderson D, Yoshizawa T, Gollschewski S, Atogami F, Courtney M (2004). Menopause in Australia and Japan: effects of country of residence on menopausal status and menopausal symptoms. Climacteric 7(2):165–174.

Avis NE, Colvin A, Bromberger JT, Hess R, Matthews KA, Ory M, Schocken M (2009). Change in health-related quality of life over the menopausal transition in a multiethnic cohort of middle-aged women: Study of Women's Health across the Nation. Menopause 16(5):860-869.

Avis NE, Stellato R, Crawford S, Bromberger J, Ganz P, Cain V, Kagawa-Singer M (2001). Is there a menopausal Syndrome? Menopausal Status and Symptoms Across Racial Ethnic Groups. Soc. Sci. Med. 5:345-356.

Avis NE, Assman SF, Kravitz HM, Ganz PA, Ory M (2004). Quality of Life in Diverse Groups of Midlife Women: Assessing the Influence of Menopause Health Status and Psychosocial and Demographic Factors. Qual. Life Res. 13:933-946.

Ayranci U, Osal O, Osal O, Arslan G, Emeksiz DF (2010). Menopause status and attitudes in a Turkish midlife female population: an epidemiological study. BMC Women's Health 10.1.

Bair YA, Gold EB, Greendale GA, Sternfeld B, Adler SR, Azari R, Harkey M (2002). Ethnic differences in use of complementary and alternative medicine at midlife: longitudinal results from SWAN participants. Am. J. Public Health 92(11):1832-1840.

Crawford SL, Avis NE, Gold E, Johnston J, Kelsey J, Santoro N, Sowers M, Sternfeld B (2008). Sensitivity and specificity of recalled vasomotor symptoms in a multiethnic cohort. Am. J. Epidemiol. 168(12):1452-1459.

Dennerstein L, Dudley EC, Hopper JL, Guthrie JR, Burger HG (2000). A Prospective Population based. Obstet. Gynecol. 96:351-368.

Dienye PO, Judah F, Ndukwu G (2013). Frequency of symptoms and health seeking behaviours of menopausal women in an out-patient clinic in Port Harcourt, Nigeria. J. Glob. Health 5(4):39-47.

Eden K, Wylie R (2009). Quality of Sexual Life and Menopause. J. Women's Health 5(4):385-396.

Im E-O (2009). Ethnic Differences in Symptoms Experienced During the Menopausal Transition. Women Int. 30(4):339–355.

Grady D (2006). Clinical Practice: Management of Menopausal Symptoms. N. Engl. J. Med. 355(22):2338-2347.

Haines CJ, Xing SM, Park KH, Holinka CF, Ausmanas MK (2005). Prevalence of menopausal symptoms in different ethnic groups of Asian women and responsiveness to three doses of conjugated estrogens/modroxy-progeaterone acetate: The Pan-Asia Menopause (PAM) study. Maturitas 52:264-76.

Hafiz I, Liu J, Eden JA (2007). Quantitative analysis of the experience of menopause in Indian women who were living in Sydney, Australia. N. Zeal. J. Obstet. Gynaecol. 47:329-34.

Kaur J (2008). Association of morphological parameters and psychosocial stresses with age at menopause. J. Nurs. Midwifery Res. 4:1-6.

Laurence K, Chole B, Haw, T (2011). Menopause and its management. Document 10:735 version 24 ©Emis http://www.patient.co.uk/doctor/menopause-and-its-management

Lunny CA, Fraser SN (2010). The use of complementary and alternative medicines among a sample of Canadian menopausal-aged women. J. Midwifery Women's Health 55(4):335-343.

Melby M (2005). Vasomotor symptom prevalence and language of menopause in Japan. Menopause 12:250–257.

Mueller PS, Plevak DJ, Rummans TA (2001). Religious involvement, spirituality, and medicine: implications for clinical practice. Mayo Clin. Proc. 76:1225-1235

National Institutes of Health (2005). State-of-the-Science Conference Statement: Management of menopause-related symptoms. Ann. Intern. Med. 142:1003-1013.

Nelson HD (2008). Menopause. Lancet 371:760–770.

Nkwo P, Onah H (2008). Positive attitude to menopause and improved quality of life among Igbo women in Nigeria. Int. J. Gynecol. Obstet. 103(1):71-72.

Nkwo PO (2009). Suboptimal management of severe menopausal symptoms by Nigerian Gynaecologists: a call for mandatory continuing medical education for physicians. BMC Women's Health 9(1):30.

Osinowo HO (2003). Psychosocial factors associated with perceived psychological health, perception of menopause and sexual satisfaction in menopausal women. West Afr. J. Med. 22(3):225-2.

Schnatz PF, Serra J, O'sullivan DM, Sorosky JI (2006). Menopausal Symptoms in Hispanic Women and the Role of Socioeconomic Factors. Obstetr. Gynaecol. Surv. 61(3):187-193.

Singh A, Arora AK (2005). Profile of menopausal women in rural north India. Climacteric 8:177-184.

Soules MR (2005). Development of staging system for the menopause transition: a work in progress. Menopause 12:117-120.

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Full Length Research Paper

Community participation in teenage pregnancy prevention using the community-as-partner model

Oyedele, O.A.*, Wright, S.C.D. and Maja, T.M.M.

Adelaide School of Nursing Science, Tshwane University of Technology, Pretoria, South Africa.

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The study explored community perceptions and experiences of the stakeholder's role in teenage pregnancy prevention, using the community-as-partner model. The study was contextual with an exploratory strategy. The research design is both qualitative and quantitative designs. The sample size for the study was determined by saturation of data and consisted of 75 participants who were teenagers, parents, teachers, professional nurses and community leaders living in the study area. The qualitative data gathering method was self-report using a semi-structured interview. Template analysis style was combined with content analysis using open coding according to Tesch's approach for data analysis. The findings revealed that although teenage pregnancy initiative was in existence in the community, the majority of participants, especially the teenagers were not informed about it. All the participants (n = 75) viewed teenage pregnancy as a common occurrence in the community. Majority of the parent sample (10 of 15) in the study discouraged the use of contraceptives by teenagers for pregnancy prevention. The study provided evidence of the applicability of the "Community-as-Partner" Model in the prevention of teenage pregnancy. The findings of the study gave an insight to the level of community participation in teenage pregnancy prevention. The evidence generated from the study could serve as a departure point for the development of community-specific interventions in teenage pregnancy prevention.

Key words: Teenagers, teenage pregnancy, community stakeholders, community-as-partner model, contraceptives, termination of pregnancy.

INTRODUCTION

Teenage pregnancy and parenthood has been a common recorded experience throughout history. The birth of an infant to a teenager represents a sudden role transition which has consequences not only for the teenager and her infant but the entire family system (Whitehead, 2007). Globally, early pregnancy and childbirth is closely linked to a host of critical social disadvantages, such as poverty and income disparity, overall child well-being, out-of-wedlock births and low educational status (Rosenthal et al., 2009:281; National Campaign, 2010).

The children of teenage mothers are more likely to have low birth weight, grow up in poverty and have higher risk of accidents, behavioural problems and becoming teenage mothers themselves (American College of

*Corresponding author. E-mail: OyedeleOA@tut.ac.za

Obstetricians and Gynecologists, 2007). Also, teenage mothers are more likely to suffer from anxiety and depression (Department of Education, 2009). Teenage childbearing has serious consequences for teenage mothers, their children and the entire society but despite the negative consequences of teenage pregnancy and childbirth worldwide the rate is still high. In the United States of America (USA), teenage pregnancy is reported to have occurred throughout the country's history (Grant and Hallman, 2008; Centre for Disease Control, 2010; National Campaign, 2010; Solomon, 2011).

Although, South Africa has had enormous success since 1994 in achieving gender parity in basic education, teenage pregnancy remains a menace. This has undermined the Department of Basic Education's success towards ensuring female children contribute towards a good life, free of poverty, by remaining in school (Panday et al., 2009). Despite the notion that the campaigns against teenage pregnancy in South Africa are yielding positive outcomes, reports suggest the figures are still too high. The official statistics from the Department of Health shows a 13.2% reduction in teenage pregnancy rate between 2009 and 2010 (Hanson, 2009). In South Africa, teenage pregnancy is regarded as a hurdle because teenagers are responsible for 40% of all pregnancies in the country and close to 35% give birth before they are 19 years. Of all teenage pregnancies, 7% was reportedly amongst 15 to 16 years old and the remaining 93% amongst girls aged between 16 and 19 years (Macleod and Tracey, 2009).

Some researchers have indicated that teenagers are at risk of pregnancy and sexually transmitted infections due to the lack of adequate information on contraceptive use and sexual health prior to their being sexually active (Tette and Ladha, 2003; Department of Health, 2004; Jewkes and Christofides, 2008; Macleod and Tracey, 2009; Solomon, 2012). In the opinion of others, teenage pregnancy and parenthood are frequently the results of family dysfunction (Xu and Shtarkshall, 2004; Holgate et al., 2007; Solomon, 2012). Available evidence has revealed that teenage pregnancy is not a simple social problem that can be addressed with appropriate educational and health promotion but through comprehensive evidence based approaches (Best Start and SIECCAN, 2009).

The motivation for the study was the high rate of teenage pregnancies in the study area and the lack of a structured community approach to reduce the incidence of teenage pregnancies. The high rate of teenage pregnancies in the study area is a major concern to parents, teachers, health professionals and the community at large. The aim of this study was to generate evidence based data for community based interventions towards the prevention of unplanned teenage pregnancy.

Theoretical framework

The community-as-partner model (Anderson and McFarlane, 2008) was chosen to guide the study as the focus of the model is health promotion of individuals and families within the context of the community. There are two central factors in this model (Figure 1.), a focus on the community as partner and the nursing process. The community as partner is represented by the community assessment wheel which represents the people that constitute the community, which include three parts: the community core, the community subsystems and the community perceptions. The first part of the community assessment wheel and the community core is divided into four aspects, which are the history, demographics, ethnicity, as well as the values and beliefs of the population. The community subsystem comprises eight subsystems that can influence the community. The eight subsystems are physical, environment, education, safety and transportation, politics and government, health and social services, communication, economics and recreation. The last aspect of the community assessment wheel and the community perceptions consists of the people's feelings about their community and the potential problems that can be identified in the community.

The application of the theory in this study was the evidence needed to develop guidelines for community based intervention that can be implemented at the community level. This could help in preventing unplanned teenage pregnancy in order to ensure that the goal of the community-as-partner model is achieved. This will assist in maintaining a system of equilibrium and a healthy community, which include the preservation and promotion of community health.

MATERIALS AND METHODS

The study was conducted in a township located in the Gauteng Province of South Africa. The strategy for the study was exploratory while the research design was qualitative. The target population were teenagers, parents, teachers, professional nurses and community leaders residing in the study area. The sampling method was convenient and purposive. The inclusion criteria for the study were teenagers between 13 and 19 years of age, parents of a male or female teenage child (if female, pregnant or not pregnant) between 13 and 19 years of age, high school teachers in the study area teaching pupils from Grade 7 to 12, professional nurses working with teenagers in primary health care clinics, religious and community leaders who reside in the study area and willingness to participate. The sample size was determined by saturation of data, which was achieved when 75 participants had been interviewed (15 participants from each sample group), each sample was saturated independently. A total of 60 interviews were analysed with new categories and 15 interviews analysed without new categories evolving. Referential adequacy was attained, partially fulfilling the requirement of trustworthiness (Lincoln and Guba, 1985).

Data gathering was through semi-structured interviews, using an interview schedule that was developed using the community assessment wheel of the community-as-partner model, which is the study theoretical framework for the study. Before the commencement of the study, approval were obtained from The Research Ethics Committee of the Tshwane University of Technology, the Gauteng Department of Health Tshwane Research Committee, Gauteng Department of Education, the Facility Manager of the Primary

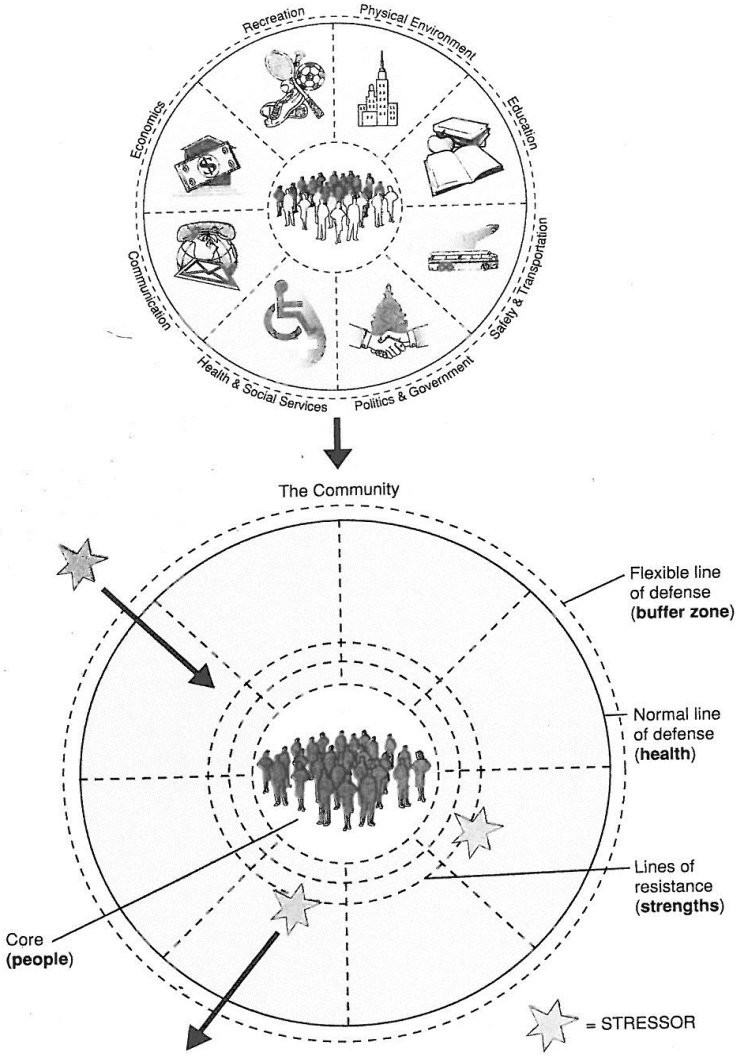

Figure 1. Illustration of the Community Assessment Wheel.
Source: Anderson and McFarlane (2008).

Health Care clinic and the School Principals, whose schools learners were interviewed. Prior to any interview, each participant's rights was explained and informed consent and assent (due to the young age of some of the participants as they were less than 18 years, assent was obtained from the participants and consent from parents or legal guardians) were obtained, as well as the permission to use an audio recorder. To guarantee privacy, the interviews were conducted in a private room with only the participant and the researcher present. All the participants were interviewed within a period of five months (June to November, 2012).

For data analysis, a combination of three qualitative data analysis methods were used which include; the template analysis style, content analysis using open coding and the quasi-statistics (Polit and Beck, 2008; Creswell, 2009). The template analysis style was necessary for possible comparison of the five sample's findings while the quasi-statistics was used as a validating method to ensure that the inferred themes and categories precisely reflect the perspectives of the participants involved in the study. To ensure trustworthiness, strategies, such as interpersonal relationship and trust building, triangulation of data gathering methods, peer examination, member checking, authority of the researcher, nominated sample, dense description, consensus with the independent coder and dependability audit were employed.

RESULTS

The findings of the study are presented according to the themes and sub-categories generated from the data (Table 1). Each of the themes is described with a summary of the categories.

Demography profile and knowledge of community based teenage pregnancy prevention programmes

In this study, a total of seventy five participants were interviewed (n = 75). As shown in Table 2, apart from the teenage participants, whose ages ranged from 13 to 19 years, the highest proportion of the teachers, professional nurses and parents were from the age group 31 to 40

Table 1. Main themes and categories generated from the data.

Main theme	Category
Community core	
History	History regarding the high rate of teenage pregnancies in Soshanguve schools and its environs
Ethnicity	Socio-cultural groups
Demographic profiles	Age Gender Position in the community
Values and beliefs	Meaning, acceptance and cultural beliefs about dating Occurrence and acceptance of teenage pregnancy Family support for pregnant teenagers Risk factors in teenage pregnancy occurrence Recognition of role in teenage pregnancy prevention Prevention strategies Age important in teenage pregnancy prevention initiatives Youth's developmental strategies
Community subsystems	
Health and social services	Knowledge, acceptance and effectiveness of contraceptives Parental consent in teenage contraceptive use
Safety	School environment
Communication	Importance and existence of parent-child communication Involvement of parents in teenagers' sexuality education Parental participation in their child's education Teenagers' peer-pressure resistance
Education	Future plans Achievement expectations about teenagers
Community perceptions	
Perception	Acceptance and cultural beliefs regarding teenage sexual experimentation
Potential problems	Problems and benefits of teenage pregnancy and childbearing

years (32.0%), compared to community leaders with the highest proportion from 41 to 50 years (28.0%). The gender distribution favoured females, 73.4% (55 of 75). In terms of socio-cultural groups, the Tswana group had the highest members, 34.6% (26 of 75) followed by the Pedi, 17.3% (13 of 75). With respect to knowledge of community-based teenage pregnancy prevention programmes, the majority of participants (62 of 75) were not aware of any programmes, activities or interventions that are currently in taking place at the community level focusing on the prevention of unplanned teenage pregnancies. While only 13 of 75 (2 parents and teachers' sample, 4 professional nurses as well as 5 of 15 of the community leaders but none of the teenage participants) were aware of intervention programmes in the community. Programmes mentioned were school health nurses, youth clinic and health seminars organised by the Department of Health.

Community core: Values and beliefs

In terms of meaning and acceptance of dating, the consensus meaning of dating was a way of having fun but not including sexual intimacy (59 of 75). Regarding the acceptance of dating in the community, the majority of the participants (59 of 75) responded that dating is acceptable, but 26 of the 59 added the stipulation of only after 18 years. Only a small group (16 of 75) indicated dating was not accepted in the community. Although, dating was not seen as behaviour that is accepted culturally (54 of 75). One response was:

Table 2. Demographic Profile of the Participants (n = 75).

Profile	n	%
Socio-cultural group		
Sotho	9	12.0
Tswana	26	34.6
Pedi	13	17.3
Venda	3	4.0
Zulu	12	16.2
Ndebele	3	4.0
Tsonga	5	6.6
Swazi	1	1.3
English	3	4.0
Age group (years)		
13-19	15	20.0
20-30	2	2.6
31-40	24	32.0
41-50	21	28.0
Above 50	13	17.4
Gender		
Male	20	26.6
Female	55	73.4

"No my culture does not allow dating, it is a taboo in my culture" (a teacher)"

With respect to the occurrence of teenage pregnancy, all the participants (n = 75) viewed it as a common occurrence in the community while in the case of acceptance of teenage pregnancy, more than two-thirds (64 of 75) of the participants indicated it was not accepted. The majority (13 of 15) of teenagers and teachers, almost all (14 of 15) parents and community leaders and almost two thirds (9 of 15) of professional nurses indicated that pregnancy amongst teenagers is not accepted. When asked about the extent of family support for pregnant teenagers, the majority of the participants (64 of 75) indicated most families do give support. They specified the continued support by family members is essential in maintaining the pregnancy, as well as the care for the baby after birth.

"Yes teenage pregnancy is becoming a norm you see in different section or streets. There are about 5 girls in my street now, even younger than my age, some 2 to 3 years younger, like 15 years, who are already pregnant. Some even have two children already" (a teenager).

The risk factors for teenage pregnancy in the community, as indicated by the participants, were categorised as personal and psychosocial, family, societal and media pressures and economic risk factors. To compare the responses of the samples, the following grading scale was used:

A total number of 8 responses and above (n = 15) indicated a yes √, indicating that the majority of the sample had the same perception;

1. 3 responses are indicated with an ∆, indicating that there was not a consensus perception in the sample; and
2. 0 to 2 responses from the sample were indicated with an x.

As shown in Table 3, the perceived causes of teenage pregnancy, as indicated by the participants were grouped into four categories, which include, personal and psychosocial factors, societal and media pressures, family and economic reasons. Only teenagers mentioned the maintenance of the relationship as a cause of teenage pregnancy.

On the recognition of role played in teenage pregnancy prevention, all the participants (n = 75) recognised that they have a role to play in the prevention of teenage pregnancy in their community either by participating in sexuality campaigns or to encourage teenagers to abstain or use contraceptives. With respect to teenage pregnancy prevention strategies, the participant's responses were grouped into sex education, preventive health care, youth participation and community engagement strategies and family life strategies (Table 4). In the case of the target age group in teenage pregnancy prevention initiatives, the majority (41 of 75) of the participants indicated that it will be more helpful to commence sexuality education before the age of 10 years, however, (34 of 75) of the participants are of the opinion that it should commence after the age of 10 years.

Community subsystems: Health and social services

In terms of knowledge of contraceptive, all the participants (n = 75) had previous knowledge of contraceptives although some, especially the male participants (20 of 75), had inadequate knowledge. With regards to the acceptance of contraceptive use by teenagers, almost two thirds (43 of 75) of the participants accepted the fact that teenagers should use contraceptives, especially the professional nurses (11 of 15). However, just more than one third (32 of 75) of the participants discouraged teenagers from using contraceptives (10 of parents sample, 5 of the teenagers and teachers, as well as 7 of 15 of the community leaders).

On the effectiveness of contraceptives, the participants' perception of the effectiveness of contraceptives was explored to determine if they had confidence in its usage and more than two thirds (57 of 75) belief if used properly they were efficient. When the issue of parental consent for teenage contraception use was explored, the majority (48 of 75) of the participants indicated it was important to involve parents, as teenagers are still minors, however, one third (27 of 75) cautioned that involving parents could discourage teenagers from using contraceptives. These

were some of the reasons offered:

"No, I will never encourage contraceptive use, because if you encourage it you are encouraging immorality, which is against the word of God and His commandments. Never, my child should abstain, which is what God says" (a community leader).

No, because it is not a solution to pregnancy prevention but abstinence is the real thing" (a parent).

"No, it is not necessary to…..because if you ask their parents to come, then they will not use it" (a professional nurse).

In terms of the safety of the school environment, the majority (43 of 75) of the participants indicated that the schools environment is safe and conducive to learning, but more than one third (32 of 75) did not believe this to be so. Of concern, was that the majority (9 of 15) of the teenage sample, more than one third (6 of 15) of parents sample, one teacher, half (7 of 15) of the professional nurses and two thirds (9 of 15) of the community leaders mentioned some teachers had sex with school girls resulting in many becoming pregnant. One response was:

"I can say no because some of the male teachers get attracted to our girls and they are using them, they just sleep with them, they are failing as teachers, many of the girls are impregnated by teachers, you see they are not safe even in the school"(a parent).

On the significance and existence of parent-child communication, all the participants (n = 75) described parent-child communication as a way that parents can communicate, interact or build rapport with their children, or openness between parents and their children. The majority of the participants (61 of 75) indicated the existence of parent-child communication in their homes especially the professional nurses and the community leaders. However, more than half (8 of 15) of teenage samples declined the existence of parents-child communication in their homes.

With respect to parents' involvement in teenage sexuality education and participation in their child's education, all the participants (n = 75) indicated that parents can be involved in teenage sexuality education by educating and giving them adequate information. This is achievable by inviting parents in the community to the clinics for necessary sex education and by attending parents-teachers meetings at schools where they can receive advice on how to get involved in teaching their children sex education. Similarly, parents can also receive sex education in churches or during community meetings. Two thirds (50 of 75) of the combined sample indicated that most parents are not actively involved in their child's education. Two thirds (10 of 15) of the teenagers, parents and professional nurses, almost two thirds (9 of 15) of the teachers and the majority (11 of 15) of the community leaders all indicated that most parents are not actively involved in their child's education. The participants' views on how teenagers can resist pressure from their peers were categorized into personal responsibility and determination and family and community support (Table 5).

Community perceptions: Perception

The knowledge of sexual experimentation among the teenagers showed that sexual experimentation among teenagers is not culturally acceptable in the community (n = 75). Only few (11 of 75) of the participants were of the opinion that sexual experimentation among teenagers is accepted by some parents in the community. The majority (12 of 15) of teenagers and parents, almost all (14 of 15) of the teachers, the majority (13 of 15) of professional nurses and community leaders believed teenage sexual experimentation is not accepted in the community. The perceived consequences of teenage pregnancy and child bearing as indicated by the participants were categorized into health, economic and social consequences (Table 6). A notable difference was the teenagers' perception that the community will reject them if they became pregnant but none of the other samples perceived rejection at all.

DISCUSSION

As teenagers attempt to discover mutually satisfying relationships, basically through friendship and marriage, the successful ability to negotiate this stage can result in intimacy that can be experienced at a deep level. Isolation and distance from others can take place if this stage was unsuccessful (Arlene and Harder, 2012). According to Whitehead (2007:148), teenage child-bearing in some parts of South Africa is celebrated as it is seen as an evidence of fertility. As found in the study, majority of the participants (64 of 75) signified that most families do support their pregnant teenagers. Jewkes and Christofides (2008), highlight the role of low socio-economic status on teenage pregnancy prevention as it influences teenagers' social environment as well as their access to quality information and education. Other reasons are the lack of confidential, sensitive and affordable contraceptives services, as well as the denial of precise and honest education on sex (Mbokane and Ehlers, 2007:8). Furthermore, poor family relationships and family factors have also been linked to increased risk of teenage pregnancy. In this study, poverty and social grants, alcohol, substance abuse, rape and incest, lack of love, divorce and parental guidance, failure to use

Table 3. Participants'' Perceived causes of teenage pregnancy (n = 75).

Category	Sub-category	A	B	C	D	E
Personal and psychosocial	Ignorance and lack of sexual information	√	√	√	√	√
	Failure to use contraceptives	√	Δ	x	X	√
	Loneliness and low self esteem	x	x	x	√	X
	Lack of discipline and too many rights	√	√	Δ	X	√
Societal and media pressures	Peer pressure	√	√	√	√	√
	Sexual experimentation	x	x	x	√	X
	Alcohol, substance abuse, rape and incest	√	√	√	√	√
	Media influence	x	x	Δ	X	√
	Idleness, lack of recreational activities	√	√	Δ	X	√
Family reasons	Family's desire to have a grandchild	x	x	x	Δ	X
	Lack of love, parental guidance or divorce	√	√	√	√	√
Economic reasons	Dating older men	x	Δ	Δ	X	Δ
	Poverty and social grants	√	√	√	√	√
	Maintenance of relationship	√	x	x	X	X

A: Teenagers, B: Parents, C: Teachers, D: Professional nurses, E: Community leaders.

Table 4. Teenage pregnancy prevention strategies as indicated by the participants.

Category	Sub-category	A	B	C	D	E
Sex education strategies	Sex education campaigns	√	√	√	√	√
	Early sex education at home	√	x	√	√	√
	Sex education at school	√	√	√	√	√
	Avoidance of dating among teenagers	√	√	x	√	X
	Abstinence from sex by teenagers	√	√	√	√	√
Preventive health care strategies	Acceptance of contraceptive use	√	Δ	x	√	X
	Closure of shebeen visit by teenagers	√	√	x	Δ	X
	Avoidance of alcohol and drug usage	√	√	√	√	√
	Provision of condoms in school	√	x	x	X	X
Youth participation and community engagement strategies	Participation in youth programmes	x	√	x	√	X
	Talent training for teenagers	x	x	x	√	√
	Teaching teenagers about God	x	x	Δ	X	√
	Good role models in the community	x	x	Δ	X	√
	Prevent school attendance if pregnant	√	√	x	X	X
	No social grants for teenage mothers	√	x	x	X	X
Family life strategies	Recreational facilities for teenagers	√	√	√	√	√
	Discipline in homes	x	√	√	√	√
	Involvement in church activities	x	√	Δ	Δ	√
	Focus on education	x	√	x	X	X
	Good parent-child communication	x	Δ	x	X	√
	Increased scholarship/jobs for youths	√	x	x	X	√

A: Teenagers, B: Parents, C: Teachers, D: Professional nurses, E: Community leaders.

contraceptives, peer pressure and lack of discipline amongst teenagers were indicated by all the participants as varying reasons for teenage pregnancy in the community.

A universal access to sexual information and skills is necessary for all young people, as they will have to deal with their sexuality at some point in time so as to be able to make informed sexuality choices (Panday et al., 2009).

Table 5. Participants' views on how teenagers can resist pressure from their peers.

Category	Sub- category	A	B	C	D	E
Personal responsibility and determination	Avoidance of bad friends	√	√	√	√	√
	Displaying self-discipline	√	√	√	√	√
	Focused on goals and objectives	√	Δ	√	√	X
	Concentration on studies	x	√	X	√	√
	Saying no to evil	√	√	√	√	√
Family and community support	Organisation of youth programmes	x	x	X	√	X
	Good parent-child communication	x	Δ	√	√	√
	Obedience to parental guidance	x	x	√	X	X
	Building self-esteem and confidence	√	Δ	X	X	√
	Non-use of drugs and alcohol	√	x	X	X	X
	Support religious acceptance	x	x	X	X	√

A: Teenagers, B: Parents, C: Teachers, D: Professional nurses, E: Community leaders.

Table 6. Participants' perceived consequences of teenage pregnancy.

Category	Sub-category	A	B	C	D	E
Health consequences	STIs/HIV/AIDS	x	√	√	√	√
	Cancer of the cervix	x	x	X	√	X
	Premature birth and difficult labour	x	√	X	√	Δ
	Depression and suicide	√	x	X	X	X
	Personal and family stress	√	√	√	√	√
Economic consequences	Single parenting	x	x	√	√	X
	Increase in crime rate	x	x	X	√	√
	Increase in unemployment/lack of skills	√	√	√	√	√
	Increase in population	√	x	X	X	X
	Perpetuating poverty	√	√	√	√	√
	Poor and bleak future	x	√	√	X	√
	Wastage of social grant	√	√	√	√	√
Social consequences	Loss of hope for family/ family disorganization/extra burden to family	Δ	√	X	Δ	√
	School dropout	√	√	√	√	√
	Reduced possibility to get married	x	√	√	√	√
	Community rejection	√	x	X	X	X
	Addiction to sex	Δ	x	X	X	X
	Subsequent pregnancy and childbirth	x	x	X	√	X
	Child abuse and abandonment	√	√	√	√	√
	Increase in prostitution	x	x	X	Δ	X

A: Teenagers, B: Parents, C: Teachers, D: Professional nurses, E: Community leader

In this study, all participants mentioned the importance of sex education campaigns at schools, abstinence from sex by teenagers, avoidance of alcohol and drug usage and the provision of recreational facilities for teenagers are some of the effective ways or the preventive strategies of teenage pregnancy.

Academic skills and educational aspirations are recognized inhibitors of teenage pregnancy. Teenagers who are deprived, as well as those with low educational achievement are at greater risk of teenage pregnancy (Department of Health, 2004). Anderson and McFarlane (2008), explained that stressors are tension-producing stimuli that have the ability of causing disequilibrium in the system which can originate from inside or outside the

community. The degree of reaction, according to Anderson and McFarlane (2008) is the disruption, because of stressors affecting the community's line of defence, and can be reflected in the community teenage pregnancy statistics, for example. The last aspect of the community assessment wheel and the community perceptions consists of the people's feelings about their community and the potential problems that can be identified. In the study, teenage pregnancy was viewed as a common occurrence by all the participants who also highlighted several consequences of teenage pregnancy in their community.

According to Anderson and McFarlane (2008), health is defined as a resource for everyday life and not the objective of living. The focus of the model is health promotion of individuals and families within the context of the community and nursing is seen as prevention. All aspects of nursing are considered to be preventive so as to improve the health and well-being of the community. Community development enables community members come together to interact as a collective unit, express a sense of community and move to community action, which in this case is the intervention programme on the prevention of unplanned teenage pregnancy. An intervention programme must bring about health promotion with community collaboration. It was indicated that when it comes to the issue of teenage pregnancy prevention, a single intervention strategy by only a sector of the society will not solve the problem but a comprehensive approach which connects and foster linkages with one another (Panday et al., 2009; Solomon, 2011).

Conclusion

The study provided evidence of the applicability of the community-as-partner model to community participation in teenage pregnancy prevention. The model focuses on the community as a whole and partnering with the community stakeholders is an important aspect of working in the community. The main function of the nurse is to assist the community to reach, maintain and promote health issues with the aim of acting as a health advocate or facilitator so that the community can have the necessary power that will help to control its reaction to the high prevalence of unplanned teenage pregnancy within the community. As a result the community normal line of defence is expected to be strengthened, an increased resistance to stressors by the community. In line with the principles of primary health care, it is the community's (stakeholders) competence to attend to its own problems that strengthen its lines of defence that leads to comprehensive teenage pregnancy interventions.

RECOMMENDATIONS

Based on the findings of the study, the following are recommended:

1. Cultural myths/beliefs that encourage teenage pregnancy should be corrected by the registered nurses. This could be done through the provision of health education to parents and the community at large, where the disadvantages of teenage pregnancy are properly emphasised.
2. Professional nurses should organise regular sexuality education campaigns and workshops in the clinics, schools, community centres and religious settings. Early sex education at home by parents and other adults should be encouraged.
3. Parents and guidance should be encouraged by the teachers and other community stakeholders to participate adequately in their children's education as well as in all other aspects of life. Parents should attend parent-teachers meeting and do regular follow-up on their children performances and behaviours in the school.
4. Lastly, health professionals need to work together with the government and all non-governmental organizations that are providing youth-friendly services and campaigns to inform teenagers and the community at large about teenage sexual and reproductive health.
5. The community at large should be made to understand the importance of open communication between parents and their children. This could be done through the use of campaigns, workshops and rallies in the clinics, community centres, social, cultural and religious groups.
6. Provision of comprehensive reproductive healthcare, contraceptives and preventative services that are confidential and anonymous in the clinics, schools, community and youth centres by registered nurses. Registered nurses should emphasise to teenagers the significance of regular, long-term and proper use of contraceptives.
7. Contraceptive use amongst sexually active teenagers should be encouraged by all stakeholders in the community, especially the practice of dual protection, which involves safe and protected sex. The Departments of Health and Education should provide extended clinical services in schools in order to provide accessible confidential services to teenagers.
8. Safe and conducive school environments that are able to monitor learners' movements, prevent sexual harassment specifically by the teachers and provision of adequate security should be guaranteed by the school authority. Appropriate punishment of teachers found guilty of abusing their students must be ensured.
9. Teenage sexual experimentation should not be condoned without proper sex education starting early from homes, clinics and at school by the parents, professional nurses, teachers and other community stakeholders.
10. And conclusively, community awareness campaigns about the possible consequences of teenage pregnancy and childbirths should be undertaken.

LIMITATION

The limitation of the study is the purposive and convenient sample of teenagers and the community stakeholders (parents, teachers, teenagers, professional nurses, religious and community leaders) living in the study area, hence the results are not generalizable to a larger context.

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Conflict of Interests

The author(s) have not declared any conflict of interests

REFERENCES

American College of Obstetricians and Gynecologists (2007). Strategies for adolescent pregnancy prevention. Washington: ACOG.

Anderson ET, Mcfarlarne J (2008). Community as partner: theory and practice in nursing. 5th ed. Crawfordsville: Lippincott.

Arlene F, Harder, MA (2012). The developmental stages of Erik Erikson

Best Start and Sieccan (2009). A summary of statistics, contexts and effective strategies related to the prevention of teen pregnancy, including examples of successful or promising initiatives. Ontario: SIECCAN.

Centre for Disease Control (CDC) (2010). Preventing teenage pregnancy 2010-2012. Atlanta: CDC.

Creswell JW (2009). Research design: qualitative and quantitative approaches. London: Sage.

Department of Education (2009). Teenage pregnancy in South Africa with specific focus on schools-on-going learners [Online]. Available from:http://wwsw.info.gov.za/view/DownloadFileAction?id=122469[Accessed: 05/08/2011].

Department of Health (2004). South Africa demographic and health survey: full report [Online]. Available from: http://www.doh.gov.za/facts/sadhs-f.html [Accessed: 05/04/2009].

Grant MJ, Hallman K (2008). Pregnancy-related school dropout and prior school performance in KwaZulu Natal, South Africa. Stud. Fam. Plann. 39:369-382.

Hanson SL (1992). Involving families in programs for pregnant teens: consequences for teens and their families. Fam. Relat. 41(3):303-311.

Jewkes R, Christofides N (2008). Teenage pregnancy: rethinking prevention. Keynote Address at the 5th Youth Policy Initiative Roundtable on Teenage Pregnancy. pp. 1-14.

Lincoln YS, Guba EG (1985). Naturalistic inquiry. California Sage.

Macleod C, Tracey T (2009). Review of South Africa research and interventions in the development of a policy strategy on teen-aged pregnancy. South Africa.

Mbokane AN, Ehlers VJ (2007). Contraceptive challenges experienced by women who requested termination of pregnancy services in the Mpumalanga Province. Health 11(1):43-57.

The National Campaign to Prevent Teen and Unplanned Pregnancy. (2010). Why it Matters: Linking Teen Pregnancy Prevention to Other Critical Social Issues. Retrieved from http://www.thenationalcampaign.org/why-it-matters/pdf/introduction.pdf.

Panday S, Makiwane M, Ranchod C, Letsoalo T (2009). Teenage pregnancy in South Africa - with a specific focus on school-going learners. Pretoria: Department of Basic Education.

Polit DF, Beck CT (2008). Nursing research: generating and assessing evidence for nursing practice. 8th ed. Philadelphia: Lippincott.

Rosenthal MS, Joseph MPH, Ross JS, Bilodeau R, Richter RS, Palley JE, Bradley EH (2009). Economic evaluation of a comprehensive teenage pregnancy prevention program: pilot program. Am. J. Prev. Med. 37:280-287.

Solomon-Fears C (2011). Teenage pregnancy prevention: statistics and programs. US Congressional Research Service. pp. 5-6.

Whitehead E (2007). Understanding the association between teenage pregnancy and inter-generational factors: a comparative and analytical study. 25(2):147-154.

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