

## **Low functional health literacy, misconceptions and risks regarding prevention of unintended pregnancy, STIs, HIV and AIDS**

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### **Abstract**

The risk of experiencing an unintended pregnancy, STIs, HIV and AIDS is exacerbated when low literacy level, low functional health literacy level and misconceptions prevail as barriers to accessing primary health care services and learning about the correct use of and adherence to medicine regimens. Sometimes the source of misconception on the risks regarding unintended pregnancy, STIs, HIV and AIDS are low literacy and health literacy. This study explored the experiences of females who utilise reproductive health promotion services and the experiences of reproductive health care providers regarding the provision of reproductive health services in a primary health care setting. A qualitative, descriptive phenomenological design was used. A sample of 36 participants (11 health care providers and 25 females) who utilise the primary health care facility, was drawn through purposive sampling. Individual and focus group interviews were conducted. Tesch's data analysis method was used. Ethical principles were observed and trustworthiness was ensured. The themes that emerged confirmed that low health literacy levels were related to unsafe sex practices, specifically, unprotected sex. It is recommended that a health literacy assessment tool for reproductive health be developed to reduce reproductive health problems associated with low health literacy levels.

**Keywords:** Low health literacy level, reproductive health, unintended pregnancy, STIs, HIV and AIDS.

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### **Introduction**

The year 2013 marks the 32<sup>nd</sup> year of the prevalence of Human Immunodeficiency Virus (HIV) and the Acquired Immunodeficiency Syndrome (AIDS) globally. Even though there was a surge of HIV and AIDS morbidity and mortality rates since 2001, to date low literacy and health literacy levels still impact on prevention of this pandemic (Lakhanpal & Ram, 2008). Alongside the HIV and AIDS epidemic in the United States of America (USA) is the 5% increase in unintended pregnancy rate among 18-24 years old from 2001 to 2006 (Finer & Zolna, 2011). The risks of unintended pregnancy, STIs, HIV and AIDS

are related to a lack of knowledge and skills to practice safer sex, specifically condom use, which provides dual protection against unintended pregnancy, STIs, HIV and AIDS (DoH, 2011). Research indicates that misinformation, myths and lack of understanding on health promotion regarding the prevention of reproductive health problems are a common phenomenon among females and males (Adamczyk & Greif, 2011). Some females and males continue to experience diverse reproductive health problems as a result of low health literacy even though they have access to reproductive health services, which are free of charge and unlimited as in South Africa, for example (Van Rensburg, 2009).

Health literacy as defined by Kickbush (2001) has three categories namely, functional, interactive and critical health literacy. This study focuses on functional health literacy, which is reported to be related to literacy level. Pandit et al. (2009) conducted a study in Chicago, USA and found that people who had low literacy level associated with reading may present with lower levels of health and those with fewer years of schooling were at risk of hypertension. According to these authors, one's educational level accounts significantly for one's health literacy level regarding hypertension. Using data from the 2003 National Assessment of Adult Literacy in the USA, White (2008) found a significant link between health literacy, pap smear and mammogram screening among women of various ages. Beyond cancer screening, there is a dearth of empirical evidence linking health literacy to women's health behaviours.

The World Health Organization (WHO) defines health literacy as "the cognitive skills which determine the motivation and ability of individuals to gain access to, understand and use the information in ways which promote and maintain good health". Health education outcomes should include the development of health literacy, personal and social benefits (WHO, 2009). Functional health literacy refers to the possession of sufficient basic skills in reading, writing and knowledge about available health services that can be accessed while seeking reproductive health promotion care (Kickbusch, 2001). Pleasant and Kuruvilla (2008) define health literacy as the capacity to obtain, process and understand basic health information and access services needed to make appropriate health decisions. These definitions challenge health care providers to ensure that females and males possess functional literacy level that will enable them to identify and access services that would lead to the prevention of unintended pregnancy STIs, HIV and AIDS. The study used the concept of health literacy in line with Pleasant and Kuruvilla's (2008) definition which is the possession of knowledge and skills that enable one to access health services and acquire information, develop basic understanding and make appropriate decisions regarding reproductive health promotion as well as disease prevention.

It is positive that some countries in Africa have increased enrolment of learners for primary education, however the quality of education remains low

(Millennium Developmental Goals: MDG Report, 2010). Furthermore, boys are on average about 5% more likely to finish primary phase schooling and the literacy rates remain higher for men (82.5%) than for women (78%). In South Africa, functional literacy refers to the completion of Grade 7, which is a primary phase of education completed by the age of 13 years. At this literacy level one should be able to read and write. South Africa has experienced a considerable improvement regarding population of children that completed Grade 7 during the past seven years. The 2010 South African MDG report presents a progressive picture where 89% of people below 18 years in 2002 had completed Grade 7 and this increased to 93.8% in 2009 (MDG Report, 2010). Low literacy level would impact on the development of knowledge of (functional health literacy) reproductive health promotion interventions to prevent unintended pregnancy, STIs, HIV and AIDS. Functional health literacy includes making appropriate decisions on safer sex practice such as use of condom.

Sakar (2008) noted that some males prefer not using condoms since its non-use prolongs sexual intercourse and it is a desire to prove their masculinity by prolonging the sexual act. Both female and male participants in a study at four high schools in Cape Town indicated that such pejoratives as "*eating sweets in plastics*" and "*bananas in skin*" were used to describe condom use (Seikow et al., 2009). It is a major concern that positive HIV prevention messages seem not to reach or be taken seriously by many people despite the prevalence of HIV and AIDS in South Africa, where about 5.5 million people (approximately 10% of total population) are living with HIV and AIDS (DoH, 2007/2011).

The rationale for the study was to develop a model for collaboration of reproductive health promotion services in PHC. The findings would initially raise awareness among reproductive health care providers of the prevalence of the low functional health literacy as well as, misconceptions and risks among females who utilise PHC services. Reproductive health care providers would also become aware of the low functional health literacy in terms of the prevention of unintended pregnancy, STIs, HIV and AIDS as experienced by females who utilise the reproductive health promotion services in PHC settings. This awareness would enable the reproductive health care providers to collaborate with other stakeholders to develop initiatives in order to ensure provision of information and support females to protect themselves against unintended pregnancy, STIs, HIV and AIDS.

Therefore the purpose of this article is to analyse the experiences of females who utilise reproductive health promotion services and health care providers concerning the impact of low functional health literacy, misconceptions and risks behaviours on the prevention of unintended pregnancy, STIs, HIV and AIDS.

## Methods

A qualitative design was used. Research with a descriptive phenomenological and contextual design was conducted in PHC settings in the eastern part of Tshwane, South Africa. This design was chosen as it allowed the participants to communicate their lived experiences regarding the phenomenon.

Data were collected from two research groups, comprising females who utilised reproductive health promotion services and the reproductive health care providers in the selected PHC settings. The research groups comprised 25 females who utilised reproductive health promotion services and 11 health care providers. A total of 36 participants were therefore included through the use of purposive sampling. Data were collected in two stages: step 1(individual interviews) and step 2 (focus group interviews) respectively. Individual interview was carried out in step 1 of data collection and included two sampled groups. Step 1.1 included individual interviews with nine participants (females who utilised PHC services). Step 1.2 included individual interviews with five reproductive health care providers. In step 2, focus group interview with females who utilised the reproductive health promotion services was conducted (step 2.1). The sample sizes of the three focus groups were five, five and six (a total of 16 participants). In step 2.2 six reproductive health care providers were involved in one focus group session. Inclusion criteria for females were participants who were proficient in Setswana or English, between 18 and 49 years and utilised the reproductive health services in a PHC setting. Health care providers who provided reproductive health services in the PHC setting were included. Purposive sampling was used for both groups.

In the selected PHC settings consultation rooms were used to conduct the interviews. A question that was asked during individual in-depth interviews and focus group interviews was: "What are the experiences of females who utilise the reproductive health promotion services and of reproductive health care providers regarding the prevention of unintended pregnancy, STIs, HIV and AIDS?" The interviews were audio-taped and field notes taken.

Tesch's method of data analysis was used to describe the meaning of the phenomenon and identify themes (Polit & Beck, 2012). Data collected in steps 1.1 and 1.2 were analysed individually and integrated as themes. The same procedure was performed with data from steps 2.1 and 2.2 from focus group interviews. As steps 1 and 2 emerged with similar themes, integration of data from individual interviews and focus group interviews was done to merge the themes.. The following criteria for trustworthiness were ensured: credibility, conformability, dependability and transferability. Credibility was ensured by including two population groups and the use of two data collection methods which were in-depth individual interviews and focus group interviews.

Dependability strategies included detailed descriptions of research methodology and findings through literature control. Supervisors and external coders were involved to ensure conformability while the rich description of the research process and findings ensured transferability.

Adherence to ethical principles included obtaining permission to conduct the study from a university in Gauteng and, also from the research department of the City of Tshwane Metropolitan Municipality. Informed consent was obtained from the participants.

## **Results**

Themes that emerged were the factors influencing low functional health literacy among females; barriers to acquiring knowledge to develop health literacy; possession of low functional health literacy with regard to risk for contracting STIs, HIV and AIDS; possession of low functional health literacy with regard to signs and symptoms of STIs, HIV and AIDS; possession of low functional health literacy with regard to reproductive system, female condom and contraception; and possession of low functional health literacy with regard to abstinence. The following abbreviations are defined as used in the presentation of the findings: IF (individual interviews with females); IHCP (individual interviews with health care providers); FGF (focus group interviews with females) and FGHC (focus group interviews with health care providers).

### **Theme 1: The factors influencing low functional health literacy among females**

Attainment of functional literacy level which is achieved after completion of primary school phase is said to be a precursor of health literacy. The participants in this study alluded to such relationship when referring to females' health literacy level. For example:

**IHCP (1):** "*Most patients have low educational standards; they say they left school because of [the] lack of money.*"

**IHCP (2):** "*They are not educated; they need knowledge*".

- Failure to attend school or complete primary education renders one with limited basic reading and writing skills. It becomes a duty of health care providers to communicate health messages at a level that people with a low education level would understand.

Another factor regarding health literacy is the lack of knowledge as indicated in the following excerpts:

**IF (5):** “*You know in the past we were not told about these things. I knew after my first child. I am from rural areas – even at schools it [reproductive health] was not a topic.*”

**IF (1):** “*The elders were respected, even when I started menstruation no one at home told me about this and I did not ask anyone.*”

There is deafening silence in the household regarding reproductive health promotion issues. A female participant in this study during an in-depth individual interview said: “*I started using a pill after my first child; I was 20 years old.*” The delay to initiate contraception use was directly related to failure of the family members and community to provide information to encourage access to contraception.

## **Theme 2: Barriers to acquiring knowledge to develop health literacy**

If there is a communication barrier it becomes difficult for patients to develop health literacy as reflected in the following statements:

**IHCP (5):** “*Patients have relocated to this area, most are from the rural areas of the country or neighbouring countries. They are unemployed and some do low-paying jobs. The community in this area is such a mix of languages, and everything. They need to be supported.*”

**IHCP (4):** “*As I said the health professionals, the community needs to be supported by working together with them. They are not educated; they need knowledge. I believe starting community programmes led by the clinic staff may help the community.*”

**IHCP (5):** “*There are communication problems due to various languages as a result of immigration. Maybe we have to work with the community to gain language and better understand their lifestyle.*”

**IF (1):** “*I told the nurse that what happens to patients who cannot read the pamphlets. In the clinic there are pamphlets on the walls to teach us, but not all can read. They come and go without any information.*”

In South Africa the 11 official languages are not spoken by every citizen and this may also be a barrier to health promotion. The mixture of languages in South Africa may be exacerbated by additional languages spoken by immigrants. Difficulty to read as a language barrier was communicated as follows:

**IF (4):** “*What they provide are pamphlets. What about the people who cannot read? It means they stay with no knowledge. This is what brings the numbers for HIV and AIDS and cancer diseases high.*”

Miscommunication in health settings can often be ascribed to the fact that the health care professionals use different languages and/or medical terminologies to communicate health information to the patient.

### **Theme 3: Possession of low functional health literacy with regard to risk of contracting STIs, HIV and AIDS**

The health care providers reported that some females in this study had not yet attained a level of health literacy that would facilitate self-protection from STIs, HIV and AIDS:

**IHCP (1):** “*I think they are ignorant of the chance to get HIV and AIDS and STIs; they think if they protect [themselves] not to fall pregnant then [it] is fine because they do not use condom.*”

**IHCP (5):** “*It is rare that you get a female saying: ‘I am using a condom and injection’, some who use that, they say, ‘I use a condom and injection for in case the condom burst I do not get pregnant’. Most of [the] people using [use] family planning, not all of them use dual method.*”

During a focus group interview low functional health literacy was reported in the following statement: “*They must have knowledge on how they get HIV and STI[s]. How do HIV and STI affect them so that they can protect themselves*” and “*they [females] are ignorant of a chance to get HIV.*”

Other participants added:

**IF (3):** “*The teenagers from poor families engage in love affair, sometimes with elder men to get material things while overlooking the risks to [contract] HIV and AIDS.*”

**IF (6):** “*My experience is that young people seem not to be afraid of HIV and AIDS. They start being sexually active at [a] young age; they fall pregnant at a young age.*”

- Other aspects of low functional health literacy were reported as affecting knowledge on symptoms of STIs, HIV and AIDS.

#### **Theme 4: Possession of low functional health literacy with regard to signs and symptoms of STIs, HIV and AIDS**

STIs, HIV and AIDS are contracted through unsafe sex practice. The signs of these diseases may go unnoticed while transmission to other people continues. In response to this issue a participants said:

**IF (5):** “*I used depo-provera for six years and it blocked my tubes with blood because I will not be able to have children and I was admitted at [to] the hospital to unblock my tubes. People must not use depo-provera for a long time because it blocks tubes.*”

**FGF (3):** “*When I use the injection my feet swell and my hip area swells too, my stomach develops a discomfort feeling.*”

Both the aforementioned statements reflect that females had poor functional health literacy regarding the signs and symptoms of STIs.

In relation to HIV and AIDS signs and symptoms female participants reported that while they negotiate the use of condoms some males say: “*I am healthy can't you see.*” Males want females to accept that they are HIV negative based on physical appearance.

#### **Theme 5: Possession of low functional health literacy with regard to female reproductive system, female condom and contraception**

Both the health care providers and females in the current study identified the need for females to be knowledgeable about biological and physiological processes of a female's reproductive system. This view was supported by the following excerpts:

**FGF (1):** “*I think there must be more talks from the clinic and homes on the female body or [one's] own body, on menstruation, family planning to be introduced early and there must be time to talk openly in the clinic and at home.*”

**FG (HCP):** “*They must know about the structures of the reproductive system, so that when the health worker talks, they understand where the womb is, [and the] cervix, the tubes.*”

Furthermore one female participant stated: “*Open talks must be introduced early in life.*”

Females need to understand the menstrual cycle so that they can use the information for pregnancy prevention and compliance on contraception. Understanding of ones' body structure and function may dispel myths and misinformation. There was a fear, for example, that the female condom would

remain inside the reproductive organs as reflected in the words of a health care provider:

**IF (5):** “*Most of them do not know [a] female condom. We give them the female condom. Those we have given come back and say: ‘No: it is too big. I am afraid what if it stays inside the body?’ So they end up not using it.*”

Further proof of the lack of health literacy related to reproductive organs in this study was the finding that females had very little understanding about female condoms and how they are used.

Regarding sterilisation participants said:

**IHCP (5):** “*We struggle to motivate females for sterilization. I do not know if it is due to lack of knowledge. The females that say they decided not to have children do not want to do sterilization.*”

After being motivated by one patient when waiting in the queue, one participant during a focus group interview:

**FGF (2):** “*She told us again that she is going to do sterilization after delivery because she does not want more children. I use to fear what sterilization is but I also decided to do it. This pregnancy is my third child. I cannot afford more children. Moreover our husbands do not want to use the condom. They get tired of it.*”

- Sterilisation is a permanent contraception method; however, misinformation and myths deter its uptake by most females as they lack knowledge regarding the procedure and benefits thereof. Hence unintended pregnancy continues in older females.

#### **Theme 6: Possession of low functional health literacy with regard to abstinence**

Possession of functional literacy would enable female participants to understand the physiology and the harmless state of abstinence. However, female participants in the current study did not have the relevant knowledge. Hence, a lack of health literacy on physiology created messages that link practicing abstinence as a safer sex practice to potential ill health.

A female participant reported that, “*if one does not have sex she will have poor blood flow and this will affect her health. What happens to the discharges if you do not have sex?*”

The participants believed that illness would result from poor blood flow due to abstinence as coitus is said to promote blood flow. In the similar vein, the vaginal secretion during coitus was thought to be a preventive measure of ill health. Such belief communicated myths regarding the promotion of abstinence meanwhile females were exposed to risks of unintended pregnancy, STIs, HIV and AIDS.

## **Discussion**

In this study, barriers to the development of health literacy included not completing primary education, being an immigrant, lack of community involvement and language. The findings of a study conducted by Schyve (2007) confirmed that language barrier, low functional health literacy and cultural factors were the main barriers to health literacy development. Sometimes health care providers assume that a patient understands English meanwhile language and cultural barriers are created as the patient is not English literate and that further affects health literacy development. An influx of immigrants from different African countries into South Africa brings with it communication barriers that may impact health literacy development. The diverse languages spoken by immigrants increase the challenges of health care providers, who are already faced with mastering the country's 11 official languages (Ngcobo, 2009). In order for an increasingly multilingual, multicultural society to provide safe, high-quality health care the barriers to effective communication with patients need to be overcome (Schyve, 2007).

It emerged in the focus group discussions that females from poor families, especially young females were at risk of contracting STIs, HIV and AIDS. This is exacerbated by the fact that most residents in the research setting were unemployed. This was confirmed by similar findings in the MDG Report (2013) that most women in developing countries are unemployed, engaged in low-paying jobs and economically dependent on males. Furthermore MDG Report (2013) stated that in addition to cultural subordination, the lack of economic independence by females seems to increase dependency on partners. The two in fact have a myriad of effects on females' HIV risk as they increase economic dependency status (Krishnan et al., 2008). An intervention to support females towards economic independence is needed in order to curtail the spread of STIs, HIV and AIDS. In order to transcend female economic dependency on males, literacy development programmes need to be implemented to equip females with knowledge and skills and increase their chances of employment.

Furthermore, without completing primary school, females have difficulty in understanding how STIs symptoms differ from the side effects of contraceptive injectables. The reported symptoms by females who experienced abdominal discomfort that warranted hospitalisation in this study are similar to the results of

a study by Short et al. (2009), which concluded that persistent endometritis presents with persistent pelvic pain that needs treatment with multiple drugs. In fact in severe cases, STIs cause severe lower abdominal pain or chronic symptoms that are treated in hospital with intravenous antibiotics. Furthermore, what exposed females in this study to contract STIs, HIV and AIDS was the lack of knowledge of how to use female condom. Low functional health literacy was confirmed by Napierala et al. (2008) as an impediment towards female condom use. Even though female condom use improved after empowerment in the intervention study, some females did not use it because it was uncomfortable.

The participants who had misconceptions that abstinence brings about ill-health did so based on cultural messages. Zarei et al. (2013) conducted a study in West Tehran where abstinence after divorce among females was aligned with ill health that presented with sexual, psychological and physical symptoms such as feeling of having a full head. Similarly, divorced females got involved in risky behaviour and consequently exposed themselves to STIs, HIV and AIDS, especially those who were not guided by religious principles of sexual purity.

## **Conclusions**

Even though females access PHC settings evidence that they possess low functional literacy regarding the anatomy and the physiology of the reproductive system and contraception becomes a challenge that health care providers need to attend to. Further studies that include males, a larger sample of females and greater numbers of health care providers need to be conducted. Another study on assessing the functional health literacy of females on the factors that influence safer sex practice and prevention of teenage pregnancy, STIs, HIV and AIDS need to be carried out so that South Africans with low functional literacy would receive appropriate reproductive health promotion programmes necessary for the prevention of unintended pregnancy, STIs, HIV and AIDS.

## **References**

- Adamczyk, A. & Greif, M. (2011). Education and risky sex in Africa: Unraveling the link between women's education and reproductive health behaviors in Kenya. *Social Science Research*, 40 (2), 654–666.
- Department of Health (DoH) (2007/2011). *HIV and AIDS and STI Strategic Plan for South Africa, 2007-2011*. National Department of Health, RSA: Government Printers.
- Department of Health (DoH) (2011). *National Contraception Service Delivery Guidelines*. National Department of Health, Pretoria: Government Printers.
- Finer, L.B. & Zolna, M.R. (2011). Unintended pregnancy in the United States: Incidence and disparities, 2006. *Contraception*, 84(5), 478–485.

- Krishnan, S., Dunbar, M.S., Minnis, A.M., Medlin, C.A., Gerdts, C.E. & Padian, N.S. (2008). *Poverty, gender inequities, and women's risk of human immunodeficiency virus/AIDS. Annals of the New York Academy of Sciences*, 1136, 101-110.
- Kickbusch, I. (2001). Health literacy: Addressing the health and education divide. *Health Promotion International*, 16(3), 289-297.
- Lakhanpal, M. & Ram, R. (2008). Educational attainment and HIV/AIDS prevalence: A cross-country study. *Economics of Education Review*, (27)1, 14–21.
- Millennium Development Goals (MDGs) (2010). *Country Report 2010*. Republic of South Africa. Pretoria: Government of South Africa.
- Millennium Development Goal (MDG) Report (2013). *Assessing Progress in Africa Towards The Millennium Development Goals. Executive Summary. Food Security in Africa, Issues, Challenges and Lessons*. Africa.
- Napierala, S., Mi-Suk Kang, Chipato, T., Padian, N. & van der Straten, A. (2008). Female condom uptake and acceptability in Zimbabwe. *Education and Prevention*, 20(2), 121–134.
- Ngcobo, M.N. (2009). A strategic promotion of language use in multilingual South Africa: Information and communication. *Southern African Linguistics and Applied Language Studies*, (27)1, 113-120.
- Pandit, A.U.; Tang, J.W., Bailey, S.C.Davis, T.C., Bocchini, M.V., Persell, S.D., Federman, A.D. & Wolf, M.S. (2009). Education, literacy, and health: Mediating effects on hypertension knowledge and control. *Patient Education and Counseling*, 75(3), 3381–3385.
- Pleasant, A. & Kuruvilla, S. (2008). A tale of two health literacies: Public health and clinical approaches to health literacy. *Health Promotion International*, 23(2), 152-159.
- Polit, D.F. & Beck, C.T. (2012). *Nursing Research: Generating & Assessing Evidence for Nursing Practice*. (9th ed.). Philadelphia: Lippincott Williams & Wilkins.
- Sakar, N.N. (2008). Barriers to condom use. *The European Journal of Contraception and Reproductive Health Care*, 13(2), 114-122.
- Seilkow, T.A., Ahmed, N., Flisher, A.J., Mathews, C. & Mukoma, W. (2009). I am not “umqwayito”: A qualitative study of peer pressure and sexual risk behaviour among young adolescents in a Cape Town, South Africa. *Scandinavian Journal of Public Health*, 37(Suppl. 2), 107-112.
- Schyve, P.M. (2007). Language differences as a barrier to quality and safety in health care: the joint commission perspective. *Journal of General Internal Medicine*, 22(Supp. 2), 360–361.
- Short, V.L., Totten, P.A., Ness, R.B., Astete, S.G., Kelsey, S.F. & Haggerty, C.L. (2009). Clinical Presentation of mycoplasma genitalium infection versus neisseria gonorrhoea infection among women with pelvic inflammatory disease. *Clinical Infectious Diseases*, 48, 41-47.
- Van Rensburg, H.C.J. (2009). *Health and Health Care in South Africa* (3rd ed.). Pretoria: Van Schaik.

White, S. (2008). *Assessing the Nation's Health Literacy: Key Concepts and Findings from the National Assessment of Adult Literacy (NAAL)*. American Medical Association Foundation: National Center for Education Statistics.

World Health Organisation (2009). Health promotion. Track 2: Health literacy and health behavior. *7th Global Conference on Health Promotion: Track Themes*. Available from: <http://www.who.int/healthpromotion/conferences/7gchp/track2/en/>. (Accessed 20 November 2012).

Zarei, F., Khoei, E.M., Taket, A.R., Rahmani, A. & Smith, T.G. (2013). How does divorce affect Iranian women's sexual well-being? *Journal of Divorce & Remarriage*, 54(5), 381-392.