FACTORS AFFECTING THE AVAILABILITY OF THE PREVENTION OF MOTHER-TO-CHILD TRANSMISSION OF HIV PROGRAMME AT RURAL HEALTH CARE FACILITIES OF MADIBENG SUB-DISTRICT

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ABSTRACT

The study determined the factors influencing the availability of the prevention of mother-to-child transmission (PMTCT) programme of the Human Immunodeficiency Virus (HIV) in positive pregnant women at the rural health care facilities of the Madibeng sub-district. A qualitative, explorative and descriptive research was conducted. Non-probability purposive sampling technique was utilized to identify research participants. Data were collected through semi-structured individual interviews. Data were analyzed using Tesch's steps. Emerging themes from data analysis were lack of and shortage of resources. Results revealed that HIV positive pregnant women experienced PMTCT programme services that were poor and of low standard. Lack of resources results in low standard service. Recommendations were made for HIV-positive pregnant women to receive PMTCT programme services in the rural health care facilities.

Keywords: availability, human immunodeficiency virus, prevention of mother-to-child transmission, programme

INTRODUCTION AND BACKGROUND INFORMATION

The history of prevention of mother-to-child transmission (PMTCT) research in South Africa variously indicates moments of challenges experienced and periods of breakthroughs achieved. Major studies on antiretroviral drug interventions and programme implementation have been conducted by South African researchers and have contributed knowledge that has been utilized in the formulation of international guidelines. In spite of these remarkable strides, government responses to PMTCT research have generally been ambiguous and dismissive on occasions (Chopra, Daviaud, Pattison, Fonn & Lawn, 2009:757). Ajewole, Sparks and Omole (2013:555) alluded that without the PMTCT programme, the risk of mother-to-child transmission (MTCT) of HIV in South Africa is deemed to be between 19% and 36%, depending on whether the child is breastfeed or not. However, these rates can be reduced to less than 4% if the PMTCT programme is well implemented. Globally, the current agenda for PMTCT is elimination of MTCT.

Availability of the PMTCT programme is a wide coverage and integration of existing public health systems, with services provided by all antenatal and delivery clinics (WHO, 2013:1). In addition, PMTCT programme requires availability of family planning services, HIV test kits, preventive drugs and sundries (WHO, 2013:1). According to Pattinson, Etsane and Snyman (2007:9), the PMTCT programme services have historically focused on providing voluntary testing and counselling, antiretroviral therapy, and infant feeding support. The expanded PMTCT package includes additional services that target both HIV-positive and HIV-negative mothers, and which include the

provision of contraception and fertility services, as well as the involvement of men in decision-making.

Availability of the PMTCT programme includes the type and range of services available, as well as the operating hours of the health care facility (UNICEF, UNAIDS & WHO, 2008:1). In addition, availability means delivery of PMTCT programme resources that are conducive to offering a range of services that include: HIV counselling and testing; anti-retroviral prophylaxis; maternal care ante-partum during labour, delivery and post-partum; family planning services; treatment of sexually transmitted illnesses (STIs) and continuity of HIV care and treatment (UNICEF, UNAIDS & WHO, 2010:1). In resource-limited settings, HIV/AIDS remains a serious threat to the social well-being of women of childbearing age, pregnant women, mothers and infants (Toure', Audibert & Dabis, 2010:1).

There are challenges in South Africa such as when pregnant women need to book earlier and health care facilities should accommodate them without postponing their appointments. Women may seroconvert during late pregnancy or breastfeeding, potentially resulting in vertical transmission. Retesting of HIV negative women through their antenatal phase to the end of breastfeeding is required (Grimwood, Fatti, Mothibi, Eley & Jackson, 2012:2). Despite the remarkably successful implementation of the PMTCT programme in South Africa, many challenges remain (Mate, Bennet, Mphatswe, Beker &Rollins, 2009:1).Therefore, this study sought to explore and describe the experiences of HIV positive pregnant women with regard to the availability of the PMTCT programme.

Toure' *et al.* (2010:2–6) attest that one of the main challenges to PMTCT coverage is the shortage of health care workers. In fact, low-income and middle-income countries not only have the highest rates of HIV worldwide, but also face a severe shortage of health care workers. Sub-Saharan Africa is home to 11% of the global population and nearly two-thirds of people living with HIV/AIDS, but only has 3% of the world's health care worker. Staff shortages in resource-limited settings are a major obstacle to the scale-up of HIV care and treatment including PMTCT.

PROBLEM STATEMENT

The research problem was identified by the researcher while working in the North West Province, South Africa as a health care worker. Cases to which the researcher attended served as the primary means of establishing the precise problems and challenges encountered by the affected communities. The North West Province was selected in 2012–2013 for this study as there were no known studies having been conducted previously on the availability of the PMTCT programme in this particular region. Notwithstanding PMTCT availability in the province, the situation is acutely problematized by the fact that very little is known about the extent of availability of the programme to HIV-positive pregnant women.

HIV-positive pregnant women have to travel a distance to the mobile health points to receive their antenatal treatment. The travelling distance between the mobile health points and the district hospital, which is accredited as an ARV providing site, is approximately 170-km to travel. This means that HIV-positive pregnant women have to pay for transport to access the accredited ARV providing site. The HIV-positive pregnant women who cannot afford fare to the clinics depend on the mobile clinics that provide treatment once a month at the mobile points. It was this reality that conscientized the researcher to the experiences and challenges of HIV-positive pregnant women in remote rural, farming and mining areas in respect of receiving PMTCT programme services. The observation of the researcher is that the health care facilities are always full of other patients and the HIV-positive pregnant women do not receive the PMTCT programme services as needed. The Health Care Worker as a service provider or staff working at the sub-district's health care facilities includes medical doctor, professional nurse, pharmacist assistant, Mother, Child and Women's Health (MCWH) coordinator, facilitator, lay counsellor and Mother-to-Mother (M2M) mentor.

PURPOSE OF THESTUDY

The purpose of the study was to determine the availability of the PMTCT programme for HIV-positive pregnant women at rural health care facilities of Madibeng sub-district.

DEFINITION OF KEY CONCEPTS

Availability refers to a wide coverage and integration of existing public health systems, with services provided by all antenatal and delivery clinics (WHO, 2013:1). In the context of this study, it implies high-quality PMTCT services that are provided in all of the country's public facilities by the Maternal and Child Health/Family Planning System.

Human Immunodeficiency Virus (HIV**)** is a virus present in all body fluids but really infectious in the blood, semen and vaginal fluid of the infected person. The virus attacks and destroys a particular group of cells that are important in regulating the normal body defenses against infecting organisms, foreign cells and proteins. As more of the cells are destroyed with time, the body is less able to defend itself from many infections and diseases (Ndzimande, 2009:36; 39). In the context of this study, HIV is the virus that weakens the immune system of pregnant women who had antibodies against HIV detected on a blood test.

Prevention of mother-to-child transmission (PMTCT**)** is defined as a clinical approach for the prevention of HIV transmission from an infected mother to her child. PMTCT is meant to protect and meet the needs of women and infants throughout, and beyond the maternal period (WHO, 2010a:12). In this study, PMTCT refers to a comprehensive programme intended to prevent mother-to-child transmission of HIV,

including integration and linkages to maternal, new-born and child health; reproductive and sexual health; HIV testing and counselling; HIV care, treatment and support services, and health system strengthening.

Programme refers to a highly integrated set of resources and activities designed to provide services to specific clients (McNamara 2008:12). In this study, programme means actions taken by health care workers in rendering the PMTCT programme services to the HIV-positive pregnant women.

RESEARCH METHODOLOGY

A qualitative research method was used. The design was exploratory, descriptive and contextual. The study was conducted at the three clusters of the Primary Health Care (PHC) clinics of Madibeng, one of the North West Province's sub-districts. The participants were purposively selected on the basis that they were enrolled in the PMTCT programme. Three rural health care facilities were sampled. The sample in this study consisted of ten HIV-positive pregnant women. Five were from the first cluster, two from the second cluster and three from the third cluster. The inclusion criteria were that the HIV positive pregnant women should be booked antenatal attendees and enrolled on the PMTCT programme. The important factor influencing the sub-district's selection was its situation in the mining, farming and rural sites where there was an influx of HIV-positive pregnant women. In addition, it offers the PMTCT programme services.

DATA COLLECTION

Ethical clearance was granted by the Department of Health Studies, University of South Africa (UNISA), and permission to conduct the study was obtained from the Department of Health Research Directorate, North West Province. The researcher established on-going rapport with the participants, from whom informed written consent regarding their voluntary and audio-recorded participation was obtained. The pre-test of the interview guide was conducted in the same context with two participants prior the main study to investigate the feasibility of the study and to detect possible flaws in the questions. The findings of the pre-test study were not included in the main study. A rephrasing of the probing questions was then done. The researcher explained the purpose of the study and made participants aware of their rights; they then signed a written consent form. Anonymity and privacy were maintained through the use of codes and private rooms. Semi-structured interviews and probing questions were conducted with ten HIV positive pregnant women regarding their experiences of the availability of the PMTCT programme until saturation was reached. Each audio recorded interview lasted between 30 and 45 minutes.

DATA ANALYSIS

Audio recorded semi-structured interviews were listened to and transcribed verbatim. Open coding was used and information was organised into themes, categories and sub-categories. Emerged theme and sub-themes were grouped. Data analysis methods were implemented according to the descriptive analysis of Tesch (Creswell, 2009:186).

MEASURES FOR ENSURING TRUSTWORTHINESS

The process of data verification was carried out according to Guba's Model of Trustworthiness (Lincoln & Guba, 1985:1; Graneheim & Lundman, 2004:109). For credibility of the findings, a pre-test of the interview guide was conducted with two HIV-positive pregnant women prior the main study. The researcher invested sufficient time for collection of data in order to have an in-depth understanding of the participants under study. Prolonged engagement was also essential for building trust and rapport with the participants, which in turn made it more likely that rich, accurate information be obtained. Transferability was achieved by detailed description of the findings with supporting quotations from the participants. Research method and the design were fully described. Dependability was maintained through collected, recorded, transcribed and translated data as accurately as possible and also by provision of literature control where appropriate. Regarding confirmability, an audit trail was maintained whereby all the records pertaining to the study were meticulously kept for continuous referrals. Field notes and the use of a digital voice recorder supported the interviews.

ETHICAL CONSIDERATIONS

Ethical clearance certificate was issued by the Higher Degrees Committee of the Department of Health Studies at UNISA to ensure that the rights of participants were considered. A written letter of approval to collect data was obtained from the North West Province Department of Health, Research Directorate, before the actual data were collected. A written letter of permission to collect data was also obtained from Madibeng sub-district manager. The researcher treated the prospective participants as autonomous agents by informing them about the proposed study and allowed them to voluntary choose to participate or not (Grove, Burns & Gray, 2013:164). The interviews times and preferences were considered, and the HIV positive pregnant women were assured that the information will not be linked to their names since they were entitled to confidentiality. Permission to use direct quotes and to record the interviews was acquired and examples of raw data did not reveal participants' identities. The identities of participants were protected by using codes. Private rooms were offered in order to maintain privacy and avoid disturbances during the interviews. The participants involved in this study did so voluntarily and were advised in writing that they could withdraw from the study at any time. In this study, their decision to participate or terminate was respected.

DISCUSSION OF THEMES

There were ten HIV-positive pregnant women and one theme emerged from analysis of data as lack of and shortage of resources. The sub-themes included long waiting periods due to the busy-ness of nurses, lack of privacy and layout and size of facilities.

Theme: Lack of and shortage of resources

The overall shortage of all categories of PHC workers was seen as a critical issue in the North West Province. This included shortages of nurses, doctors, pharmacists, social workers as well as the lay counsellors. Logistics and infrastructural constraints such as inadequate size of the clinic buildings for increasing numbers of HIV-positive pregnant women and workload arising from providing nurse-initiated-management-of antiretroviral therapy (NIMART) resulted in further strain.

Sub-theme 1: Long waiting periods due to busyness of nurses

The short supply of health care workers adversely affected the standard of PMTCT programme and capacity of the clinics. There has been an increase in the programme addressing the HIV/AIDS epidemic, but the number of staff has not been increased. The findings also revealed that the HIV positive pregnant women spent the whole day at the health facilities. Nurses had to make arrangements for staff shortages and work overtime due to the growing demand for PMTCT programme services associated with shortage of staff and lengthy ques as indicated by the following:

> Nurses are short staffed and always busy, having too much to do. We sit and wait for long time and thereafter told to come tomorrow without being checked. Nurses are always busy. You come to the clinic at six in the morning, but return home after one in the afternoon. (Participant 2: 34 years old).

> When nurses have too much to do on that day, they tell us to come the next day. Nurses are always busy and we sit and wait for a long period.(Participant 1: 29 years old).

> Services were reported to be not acceptable as expected. Most of the HIV-positive pregnant women felt frustrated because of shortfalls in PMTCT programme services delivery as indicated:

> I find the services to be poor and of a low standard. (Participant 2: 34 years old).

> You see receiving bad services of being returned back home without receiving any help frustrates us as HIV positive pregnant women. (Participant1:29 years old).

Sub-theme 2: Lack of privacy

HIV-positive pregnant women reported that they were not attended to separately during antenatal care (ANC). They were treated in the same consultation rooms with the other patients. The nurses were understaffed and the consulting rooms were also not enough. The participants mentioned that:

> The very same Health Care Workers who work in the maternity sections are the ones who attend to us in the same counselling rooms that we share with other patients because the rooms are not enough. (Participant 4: 22 years old).

> I for one wish that the health care workers attend to us separately because you come here at about six o'clock, and go home at one o'clock. I ask that there should always be a person working specifically with pregnant women. (Participant 2: 34 years old).

The participants mentioned that in maternity side wards, nurses were always busy because of many deliveries. The nurses attended to the pregnant women in labour pains first and later to ANC ones. These resulted in participants being told to come the following day. The participants expressed these concerns:

> We spent the whole day here and I wish the pregnant women who came for ANC check-up be treated far away from the delivery rooms because we are left unattended and priority is given to delivering ones. (Participant 4: 22 years old).

Some participants mentioned that the clinics were too small to accommodate the HIV positive pregnant women. Parking areas and park homes were erected for attending the HIV positive pregnant women because the clinics were small.

Sub-theme 3: Layout and size of facilities

The findings revealed that the health care facilities were small, despite the existence and utilisation of the park-homes as extra consultation rooms. Consulting rooms were insufficient and parking sites were used for conducting the support groups. Layout and size of a facility determine the extent to which a pregnant woman could be attended separately without compromising her privacy. Furthermore, small clinics could not cater for bigger numbers of patients visits. Many maternity side ward deliveries necessitate adequate personnel to facilitate maternity child births. The participants mentioned that:

> I want pregnant women to be on one side, the clinic is too small. Sometimes we become dizzy; we vomit and wish they help us quickly. The issue of being attended in the parking areas and park homes because of small clinics is not good at all. (Participant 2: 34 years old).

DISCUSSION OF RESEARCH RESULTS

The study showed that the PMTCT programme, including antenatal and delivery care services, was available in most visited clinics. However, some of the clinics were not fully functioning for the PMTCT programme services according to their level. Pregnant women visit ante-natal clinics at a relatively advanced stage of pregnancy, fewer than 40% of them attended the first time before 20 weeks' gestation. Some pregnant women even go into labour without having attended an ante-natal clinic once. The PMTCT policy introduced in 2010 requires HIV-positive pregnant to attend an ante-natal clinic early, at 14 weeks' gestation, so that interventions can be started as soon as possible. Increasing early attendance will require interventions at both the individual and community levels to raise demand for services. In addition, changes in attitudes towards health-care services and their organization will be needed to boost supply (Barron, Pillay, Doherty, Sherman, Jackson, Bhardwaj, Robinson & Goga, 2013:7).

Barron *et al. (*2013:7) further indicated that despite the substantial increase in the number of facilities that can administer ART, 15% of public health-care facilities in South Africa are still not able to initiate treatment. This inconveniences pregnant women who may have to be referred to another facility for treatment initiation and increases the possibility that they will be lost to follow-up. In Tanzania, the average staff workload at Maternal Neonatal Child Health Clinics (MNCH) ranges from 37.8% at facilities that do not provide PMTCT to 50.5% at clinics in which trained health care workers provide PMTCT services (Simba, Kamwela, Mpembeni & Msamanga, 2010:17). This suggests that health professionals may be less motivated to undertake PMTCT-related activities. A performance-based system for providing PMTCT services may therefore improve MNCH and long-term HIV care and treatment (Toure', 2010:2).

According to Mofenson (2010:130), the contributory factors to the slow pace of expansion of prevention coverage include the following:

- lack of availability and access to family planning and antenatal services,
- low rates of HIV testing among antiretroviral treatment services into the ante-natal setting, compounded by human resource constraints and
- lack of political will to priorities maternal health and prevention of MTCT.

Mofenson (2010:144) corroborates further that structural factors in country health systems are some of the largest challenges to implementing effective programmes for prevention of MTCT of HIV infection. Nakakeeto and Kumaranayake (2009:987) elucidate that human resource limitations are also significant constraints toward implementation of programmes for prevention of mother-to-child transmission of HIV infection. Task shifting from professional health workers to nonprofessionals could help facilitate scaling up prevention services. Donor investment in strengthening and expansion of human resource capacity in health systems is critical not just for programmes for prevention of MTCT but also for enabling treatment programmes for

expanded populations of infected individuals as treatment guidelines move towards earlier initiation of therapy. It is easy to get overwhelmed by the enormity of the worldwide perinatal HIV epidemic and the extent of resource and infrastructure needs; however, this cannot be an excuse for inaction. Availability of the PMTCT programme remains a challenge. Therefore, unavailable PMTCT programme results in paediatric HIV infection that is not prevented and increased infection rate among pregnant women.

CONCLUSION

This study assisted the researcher in understanding the experiences of HIV-positive pregnant women with regard to the availability of the PMTCT programme. A need for all relevant stakeholders in HIV care to scale up PMTCT programme to all HIV-positive pregnant women of reproductive age would make the programme available to all, and assist in PMTCT of HIV. PMTCT programme services including ante-natal and delivery care by health care workers were available in most of the clinics. However, some components of the PMTCT programme were incomplete such as ARVs stocks, social workers and enough consulting rooms. The findings suggested that providing incomplete PMTCT services is the province's challenge to achieve PMTCT of HIV. Therefore, it is important that pregnant HIV-positive women and postnatal HIV-positive women are encouraged to book earlier for ANC and continue with postnatal care. This will benefit both women in such a way that all PMTCT programme services can be available on time.

RECOMMENDATIONS

The following recommendations were made in view of the findings of the study.

- Increase maternity service availability and uptake for the PMTCT programme to be available in the rural health care facilities of the sub-district.
- Address barriers such as distance, facilities operating times and resources shortages in order for the HIV-positive pregnant women to avail themselves at the health care facilities
- Seek strategies and ways of reaching and supporting HIV positive pregnant women through increasing mobile clinics visit days in order to increase availability of the PMTCT services.
- Fill in vacant health care workers posts and increase the number of health care facilities by extension of working hours to night duties and weekends.

LIMITATIONS OF THE STUDY

The study was conducted at Madibeng sub-district and therefore could not be generalized to the whole of North West Province or of South Africa. Only a small sample was used and would have been different if it was a big sample.

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REFERENCES

Ajewole, O.J, Sparks, B.LW & Omole, O.B. 2013. Uptake and factors that affect enrolment into the prevention of mother-to-child transmission of human immunodeficiency virus programme in rural Limpopo Province. *South African Family Practice*, 55(6):555. DOI:10.101080/20786204 .2013.10874416.

Barron, P., Pillay, Y., Doherty, T., Sherman, G., Jackson, D., Bhadwaj, S., Robinson, P & Goga, A. 2013. Eliminating mother-to-child HIV transmission in South Africa. *Bulletin of the World Health Organization*, 91(1) Genebra Jan. 2013.

Chopra, M., Daviaud, E., Pattinson, R.,Fonn, S & Lawn, J.E. 2009. Saving the lives of South Africa's mothers, babies and children: Could the health system deliver? *The Lancet*, 374:835–846.

Creswell, J.W. 2009. *Research design*. 3rdEdition. Thousand Oaks, CA: SAGE.

Doherty, T., Chopra, M., Nsibande, D., Mgoma, D. 2009. Improving the coverage of the PMTCT programme through a participatory quality improvement intervention in South Africa. *BMC Public Health,* (9):406.

Graneheim, U.H & Lundman, B. 2004.Qualitative content analysis in nursing research concepts: Procedures and measures to achieve trustworthiness. *Nurse Education Today*, 24(2):105-112.

Grimwood, A., Fatti, G., Mothibi, E., Eley, B & Jackson, D. 2012. Progress of preventing mother-to-child transmission at primary health care facilities and district hospitals in three South African provinces. *South African Medical Journal*, 102(2):1-4.

Grove, S.K., Burns, N. & Gray, J.R. 2013.*The practice of nursing research: Appraisal, synthesis and generation of evidence.* 7th edition. St Louis, Missouri: Elsevier.

Lincoln, M. & Guba, E.G. 1985. *Criteria for assessing trustworthiness of naturalistic inquiry.* Thousand Oaks: Sage.

Mate, K.S., Bennet, B., Mphatswe, W., Baker, P & Rollins, N. 2009. Challenges for routine health system data management in a large Public Health Programme to prevent mother-to-child HIV transmission in South Africa. PLos ONE. 4(5):e5483.doi:10.1371/journal.pone.0005483.

McNamara, O. 2008. Non-profit management guidelines. Retrieved from http://www.google.com/?gws-rd=/#McNamara (Accessed 10 October 2013).

Mofenson, L.M. 2010. Prevention in Neglected Subpopulations: Prevention of Mother-to-Child Transmission of HIV Infection. *Clinical Infectious Diseases* 2010, 50(53):5130-5148.

Nakakeeto, O.N & Kumaranayake, L. 2009.The global strategy to eliminate HIV infection in infants and young children: A seven country assessment of costs and feasibility. *AIDS 2009*, 23:987–995.

Ndzimande, P.N. 2009. Communicable disease in Africa continent. 2nd edition. Kwazulu-Natal: Alberts Publishers.

Pattinson, R., Etsane, E & Snyman, J. 2007. *Report to UNICEF on the scaling-up of the basic antenatal care quality improvement programme in two sub-districts per province in South Africa*. Pretoria: The University of Pretoria Maternal and Infant Health Care Strategies Research Unit.

Simba, D., Kamwela, J., Mpembeni, R & Msamanga, G. 2010. The impact of scaling-up prevention of mother-to-child transmission (PMTCT) of HIV on the human resource requirement: The need to go beyond numbers. *International Journal of Health Plan Management,* 25:17–29.

Toure', H., Audibert, M. & Dabis, F. 2010. To what extent could performance-based shemes help increase the effectiveness of PMTCT programmes in resource-limited settings? A summary of the published evidence. *Bio Medical Central*, 10:702.

UNICEF, UNAIDS & WHO, 2008. *Children and AIDS. Second stocktaking report:* New York: UNICEF, UNAIDS and WHO.

UNICEF, UNAIDS & WHO. 2010. Children and HIV and AIDS. Introduction-HIV data. Retrieved from http://www.unaids.org (Accessed 15 October 2012).

WHO. 2010. *World health statistics 2010*. Geneva, Switzerland: WHO.

WHO. 2013. *Women's experiences in services for preventing the mother-to-child transmission of HIV: A literature review.* Los Angeles, California: WHO.