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An Analysis of the Challenges in the Implementation of PMTCT in Rural Zimbabwe and Its Effectiveness in the Amelioration of New Infections. A Case Study of Magagula Resettlement-Mtholampilo Clinic in Matebeleland North

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ABSTRACT

Rural Zimbabwe still remains porous and volatile within the spheres of HIV/AIDS as a pandemic. Cultural practices that are practised in some places seem to hinder interventions aimed at ameliorating HIV whereas in the same line scarcity of clinical or medical facilities still remains a major stumbling block towards living the "HIV Free Generation" dream. This paper sought to analyze the challenges that are faced in the implementation of Prevention of Mother to Child Transmission (PMTCT) programme as a means to mitigate new infections in the case of newly born babies. The study established that new infections are still recorded in Lupane district (Mtholampilo Clinic) due to the cultural practices that define, form and shape the perceptions of the people in relation to access to medical assistance. To some point the naturalist approach to delivering the babies (Traditional midwifery) has been cited as a stumbling block since mothers are unaware of their HIV status hence putting the newly born at risk of being infected through vertical transmission. The lack of adequate medical or clinical facilities and personnel has also been a short circuit in the outreach and gospel of teaching about PMTCT in rural Zimbabwe. The study established that NGOs that work within the health and welfare department have been of great assistance in cascading and spreading the efforts to counter new infections. The research adopted a case-study approach and by nature became exploratory. Out of its being exploratory, the research used interviews and questionnaires to decipher of the views of respondents. The data was analyzed through thematic analysis, seeking to discuss the most dominant themes and trends in the data as per coding. Out of the interaction with respondents, the study recommends that there be a synergy of traditional and modern ways towards caring for pregnant and expecting mothers in order to improve cultural tolerance. Keynote was the concept of noting that it will be also feasible to train the elderly (Aunts, local traditional midwives) on using HIV testing kits in order to embed awareness in rural communities.

Keywords: Antiretroviral therapy, New infections, Mother to child transmission, HIV/AIDS, Prevention of mother to child transmission (PMTCT), Pediatric AIDS

INTRODUCTION

The paper starts of by giving the (I) background and context of PMTCT and the origin of the practice, (II) of the paper addresses the objectives of the study and also delves into conceptualization of pediatric AIDS from a global perspective and discusses the practical steps that the world has taken to minimize the scourge of new infections. Part (III) of the paper presents the methodology and theoretical framework. Part (IV) and (V) of the study present the findings, recommendations and conclusions, respectively.

BACKGROUND AND CONTEXT

HIV/AIDS as an incurable pandemic has killed a number of people with an inclusion of newly born babies. Such deaths

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have put HIV/AIDS under scope for global cooperation with United Nation agencies playing a central role in the amelioration of the epidemic. Notable is that HIV/AIDS endangers health security, hence through motivated approaches, nations came up with Millennium Development Goals with number four of the MDGs clearly specifying the need to "**Reduce Child Mortality**", after the shift to Sustainable Development Goals, the emphasis on health stills recurs and takes the top resonance and significance with SDG number 3 emphasizing "**Good health and well-being**". The notoriety that HIV/AIDS has had as a disease has affected a number of communities all across the World.

HIV in pregnant mothers has caused worries that such mothers may transmit the infection to their babies during pregnancy. Apart from posing the threat of transmitting HIV during pregnancy it is established that HIV can also be transmitted during child birth or through breastfeeding. Discovery of this symbiotic relationship or synergy in the transmission of HIV led to the great concerns in curbing and minimizing the risk of mother to child transmission [1], notes that in the mission to curb new infections (Prevention of Mother to Child Transmission) has been established through encouraging mothers who are HIV positive to be enroll under antiretroviral therapy to reduce risk of transmission, with the antiretroviral therapy being taken during pregnancy or after pregnancy.

According to the World Health Organization report of 2013 approximately 1.4 million HIV positive women become pregnant each year contributing to 300,000 or more fetal and neonatal deaths each year, with however a positive benefit towards the uptake of antiretroviral therapy, the report assures of a reduced transmission of 1% whereas lack of following the therapy process leads to a 15-45% risk of transmission. Statistically 86% of pediatric AIDS comes from sub-Saharan Africa with new infections being observed over the years. Without treatment or a strong system of PMTCT to observe that newly born are not infected, one third of the infected children pass away in the first year of their lives, with half of the children dying at the age of 2 and four fifths dying at the age of five, all this amounts to a threat to human security and health security.

CONTEXT

Mother to child transmission in rural Zimbabwe remains a challenge despite the introduction of PMTCT. This paper seeks to interrogate on the hurdles towards the full swing implementation of PMTCT.

OBJECTIVES OF THE STUDY

1. To investigate the challenges and prospects of the implementation of PMTCT in Rural Zimbabwe.
2. To assess the knowledge of PMTCT in Magagula resettlement community and Mtholampilo Clinic staff members.
3. To examine the role of other players and actors (institutional support) around Magagula resettlement in line with HIV/AIDS and PMTCT.

The following assumptions/hypothesis guided the study:

1. Lack of knowledge on PMTCT programme in Lake Alice has led to continued new HIV/AIDS infections and hence child mortality.
2. Non-compliance in taking medicated amongst HIV infected mothers hinders full swing effectiveness of the PMTCT programme.
3. Denial and secrecy amongst HIV positive mothers stands as a barrier to the success of the programme.

CONCEPTUALIZATION OF PEDIATRIC AIDS

The diagnosis of HIV/AIDS in children is referred to as Pediatric AIDS. According to the AIDS Foundation [2], 2.6 million children under the age of fifteen are living with HIV in the world, with 88% of these children residing in Sub Saharan-Africa [3] estimated that 220,000 children were newly infected with HIV in 2014 and noted that about 600 children are newly infected with HIV every day. Investigating the transmission of HIV to children, a report titled "Towards Universal Access Progress" points out that more than 90% of HIV infections in children result from mother-to-child-transmission, where the virus is passed from a mother living with HIV to her baby during pregnancy, childbirth, or breastfeeding, the report expresses that despite the knowledge on how to curb/limit chances of viral transmission during pregnancy, the incomplete understanding of this mechanism has made pediatric infections acute since they depend on the variable of the severity of the mother's infection.

It has been noted that Sub Saharan Africa and Africa as a whole has been affected by the pandemic. The gruesome effects of the unforgiving disease have left many families without breadwinners, children as orphans, men as widowers and women as widows. With such effects, HIV/AIDS has affected young children who are born infected. Children born with HIV/AIDS are psychologically affected; their self-esteem and interpersonal skills are on a low note since they feel inadequate compared to other children of their same age. As such, pediatric AIDS does not only affect the child who has been born infected but it cuts into the future of the coming generations.

Zimbabwe

Duri et al. [4] report on the Zimbabwean pediatric HIV infections by bringing out that mother to child transmission (MTCT) of HIV is a big problem in Zimbabwe which has become the major contributing factor of infant and child mortality. Statistically it contributes 90% as a source of HIV infection in children below the age of 15 years. Relating to the PMTCT program in Zimbabwe, Duri et al. [4] reveal the

major goal being to reduce HIV new infections in infants, thereby leading to the reduction of infant morbidity and mortality. In 2009, 56% of HIV-positive pregnant women received antiretroviral for PMTCT; only 35% of HIV-exposed infants received prophylactic ARVs for PMTCT. Dube et al. [5] bring out a statistical delve that reflects that between the period 1980 and 2005, of the 10 million newly born in Zimbabwe 504,000 were vertically infected with HIV. Ferrand et al. [6] point out that as of 2010 it is estimated that about 120,000 children between the ages of 0-14 are living with HIV/AIDS of which 3.4% of children aged 10 years are long-term survivors following MTCT. In recommending tacit and vigorous application of PMTCT, the researchers conclude that with continued efforts to reach women with PMTCT services, and renewed commitment to addressing gaps in antenatal care access and delivery by a skilled attendant, national targets for PMTCT can be met.

Other African states

Skinner et al. [7] review PMTCT as a stepping stone to the decrease of HIV new infections in children, however they unearth disappointing discoveries that affect and bedevil rural areas in South Africa. Skinner et al. [7] observe that despite free medical access for women and children in South Africa, poor road networks, underdeveloped transport system network and poor telecommunications which in turn countered progress in the implementation of PMTCT. These named variables are put into the picture by Skinner et al. [7] in the context that underdeveloped transport system network and poor road networks become a challenge in the delivery of medication since families from far deep Eastern Cape cannot travel easily to reach clinics, additionally poor telecommunications presented a challenge in delays to make procurement of ARVs leading to a flawed efficacy of the PMTCT program.

Okoli and Lansdown [8] observe that Nigeria and Malawi are laden with socio-cultural barriers to the full implementation of PMTCT with socio-cultural barriers including stigma and discrimination, perception, religious beliefs, family disruption, gender inequality, unstable pre-marital sexual relationships, unskilled birth delivery by Traditional Birth Attendants (TBAs) and low utilization of hospital delivery services. They cement that stigma and discrimination appear to be the most important socio-cultural barrier faced by PMTCT. Adding value to their research, [8] appreciate [9] who note that women enrolled in PMTCT programmes hide their HIV status to their partners and family which later leads to them shunning away enrolment into the PMTCT programme. Notable is that women often are vulnerable to physical abuse and violent reactions from partners and families when they enroll in PMTCT programme which in turn makes them lose commitment in adhering to PMTCT therapies or rather going to worst extents of dropping out from the programme.

HOW HIV AFFECTS CHILDREN?

Negative health effects

Effects of HIV in young children make life unbearable for the young ones. Elizabeth Glaser Pediatric AIDS Foundation exposes that children who are living with HIV face difficulties in effectively fighting pediatric infections compared to their counterparts who are HIV-negative, notwithstanding the fact that children's immune systems will not be that fully developed, notable is that HIV-positive children usually fall prey to sinus and ear infections, urinary tract infections, meningitis, and pneumonias and mostly commonly, in developing countries is diarrhea, tuberculosis and respiratory illnesses.

Vranda and Mothi [10] highlight that Neuropsychological, Neurological and developmental manifestations of HIV disease are the earliest and most devastating markers of infection in children with 40-90% of HIV infected children having a certain level of neurological involvement. Neurodevelopment delays have been noted amongst HIV infected children, Neurodevelopmental delays have been significantly aligned to two 2 significant outcomes which are Static Encephalopathy and Progressive Encephalopathy (P.E). HIV related Progressive Encephalopathy has been discovered to affect 50% of Pediatric AIDS. The impact of HIV on the neurodevelopment of pediatric patients has been outlined as poor receptive and expressive language development and a slowed motor development skills.

Social and belonging disturbances

Hill [11] writes in the Guardian Newspaper in an article titled "Teenagers born with HIV tell of life under society's radar" exposing the burden of HIV in children, Hill as a journalist brings out how HIV is not simple to comprehend to in young children through capturing a statement by Clive who says:

"Society forces me to live two lives, one of which - the one where I'm honest about my status - I have to keep completely secret from the other one," "It angers me that HIV is considered such a dirty thing by so many people. Why are people more sympathetic to those with cancer than those with HIV? It's partly because I have to live this life of shame and secrecy that I find it so hard to take my meds."

This journalistic approach to HIV infection amongst children shows how significant the infections are in relation to social lives of children and how they position themselves at school, in community and in their personal lives.

Mellins et al. [12] postulate that children suffering from illnesses often exhibit psychiatric problems, anxiety, depression and feelings of isolation. Vranda and Mothi [10] are not of any deviation from this assertion as they highlight that children living HIV/AIDS have an added burden in complexity of their illness and treatment as well as in the

adverse psychological circumstances and poverty in which many live.

Faithfull [13] brings out that another common chronic or terminal illness is stigma associated HIV/AIDS. Faithfull [13] makes it clear that most times HIV infected children, and their families live in a conspiracy of silence and shame associated with AIDS. Illness is often kept as a secret. One of the disturbing consequences of "conspiracy silence" is that the families may be withdrawn, become socially isolated and become emotionally cut off from traditional support systems. Parents delay disclosing the children as well as their own HIV/AIDS illness status due to stigma and possible social consequences. The outcome of all these dilemmas is that self-imposed secrecy and reactions to social stigma may preclude families from procuring necessary treatment seeking assistance with permanency planning for infected as well as affected children and obtaining needed forms of social support hence leading to the ineffectiveness of interventions and programs such as PMTCT which need people to be in full acceptance of their conditions and statuses in order to follow treatment procedures carefully.

METHODOLOGY

Myers [14] outlines that a research methodology is a strategy of enquiry, which moves from the underlying assumptions to research design, and data collection. This paper adopted a case study approach focusing on Matebeleland North, a province in Zimbabwe, narrowing down to the Lupane Districts. Bhattacherjee [15] defines a case-study research as an in-depth investigation of a problem in one or more real-life settings (case sites) over an extended period of time, in this case the real-life settings. Bhattacherjee [15] notes that the data may be collected using a combination of interviews, personal observations, and internal or external documents thus case studies can be positivist in nature (for hypotheses testing) or interpretive (for theory building). This type of research has its strength in its ability to discover a wide variety of social, cultural and political factors potentially related to the phenomenon of interest that may not be known in advance.

Denzin and Lincoln [16] are of the view that qualitative research involves an interpretive, naturalistic approach to its subject matter; it attempts to make sense of, or to, phenomena in terms of the meaning people bring to them, this will add the understanding of common peoples in the chosen area of study to interpret how they feel in regards to new infection despite the existence of prevention methods. According to Domegan and Flemimg [17], qualitative research aims to explore and to discover issues about the problem on hand, because very little is known about the problem. There is usually uncertainty about dimensions and characteristics of problem. It uses 'soft' data and gets 'rich' data'. This paper was explanatory in the sense that it sought to bring out how infants are still being infected in Matebeleland North despite the existence of PMTCT.

Data collection methods

The researcher used qualitative approaches of collecting data. In its qualitative nature it sought to find explanations, opinions and insights surrounding the continued new HIV infections among children under the age of 15, evaluating the effectiveness, challenges and impact of the PMTCT program in Matebeleland North.

Focus groups, interviews, questionnaires and participant-observant approaches will be used to collect data. Questionnaires were distributed among a sample of 300 females and 150 males in the respective districts chosen as of this study thus meaning that 450 participants made up the sample. Coordination of the information gathered was married closely with group interviews/focus groups which targeted hospital staff, mothers living with HIV, representatives from the Ministry of Health and NGOs in order to bring diversities in viewpoints in relation to the challenges affecting PMTCT as a program. Focus groups were conducted amongst affected groups to necessitate debate and offer the researchers all the information in one house, this enhanced a more detailed account of PMTCT as a mitigation strategy against new infections and the different challenges faced.

Theoretical framework

The study utilized the Health Belief Model as its theoretical basis and foundation for enquiry.

Health belief model (HBM)

Some researchers alludes that the theory was built in 1950 as an effort to understand why medical screening programs offered by the U.S Public Health Service were not very successful. The motivating basis of the model is that well-being of people is determined by personal or perceptions about a disease and the strategies available to decrease its occurrence. They noted that personal perception derives from factors such as perceived seriousness, perceived susceptibility, perceived benefits and perceived barriers.

Perceived seriousness

Perceived seriousness measures individuals' belief about the severity or gravity of a disease, in this HIV/AIDS. Certain researchers are of the view that perceived seriousness is based on medical knowledge which will inform how one views the disease in light of the consequences or effects the disease would affect them in general.

Perceived susceptibility

Susceptibility/personal risk refers to the perceptions that one has in viewing a risk. The greater the perceived risk, likelihood of engaging in behaviors to reduce the risk. Some notes that perceived susceptibility pushes people to seek vaccinations floss their teeth in protection against tooth loss and gum disease. Others note that when people think that they are not at risk or they have low risk of susceptibility,

they indulge in unhealthy behavior. Some observed that older adults generally do not perceive themselves to be at risk for HIV infection and therefore many do not practice safer sex. This part of the model will seek to understand how the people in the Mtholampilo area perceive the risk of contracting HIV infections and how much they try to limit chances of protection.

Perceived benefits

This part of the model is based on the person's views on the value or usefulness of a new behavior in decreasing the risk of developing a disease. People tend to adopt healthier behaviors when they believe the new behavior will decrease their chances of developing a disease. Researchers alludes that perceived benefits play an important role in the adoption of secondary prevention behaviors such as screenings, in this case perceived benefits will lead to behaviors like continued visits to the counseling and testing sessions and even eating healthy to boost the immune system of those that are already HIV positive.

Perceived barriers

The notion of perceived barriers take from the view that change does not come easily hence. Researchers believe that individual's perceptions of the obstacles in the way of adopting a new behavior motivates or demotivates the zeal to change. Some others note that perceived barriers are the most imperative in motivating behavior change. For a paper that seeks to explore dynamics around HIV and uptake of favorable behaviors it is notable that denialism, fear of embarrassment and fear of the unknown maybe the major stumbling blocks towards people appreciating adopting an attitude stimulated by "perceived benefits".

Modifying variables

Noting the above mentioned dimensions building up HBM, variables such as culture, education level and past experiences modified by the few mentioned variables. Scientists notes that individual characteristics influence personal perceptions; for instance in this case when someone is diagnosed with STIs and successfully gets treated, she/he may have self-motivated perception of susceptibility because of this past experience or this past experience may diminish their perception of seriousness because STIs were easily treated. Modifying variables in this paper informed how the respondents view HIV as an infection and how they convinced they are, about PMTCT and its effectiveness in preventing new infections in babies.

Cues to action

In addition to the above mentioned components that make up HBM, it is noticeable that behavior is also influenced by cues to action. Some researchers views cues to action as people, events, things and people. In substantiating this view Graham notes that illness of a family member may motivate one person to learn of the consequences of a disease and hence beneficial behaviors may result from this.

DISCUSSION OF FINDINGS

Culture as a barrier

The paper established that Magagula Resettlement remains predominantly cultural and the traditional lifestyle still holds the social lives of the people as a fabric of social cohesion. Noted was that traditional midwives still play a pivotal role in facilitating midwifery process and training young mothers on breastfeeding and child rearing. Respondent 1 in an interview opined as follows:

"Giving birth in a hut is beneficial to us [mothers] and our babies. The baby is born as strong and learns to be fighter from the first day he/she makes it to the world. For [us] we are not injected injections to induce us into labor, it's all natural and it favors our culture as black people".

The above noted sentiment was salient across the board. 89, 6 (269) of the female respondents supported the cultural notions of promoting the role of traditional midwives as a way to honor and respect the ways of the ancestors. Some of the respondents expressed their deep connectedness to culture by outlining the fact that most of the traditional midwives were an extension of the family hence the child is born into family hands and praised and showered with words of praise and totems.

Culture posed as a serious threat towards efforts to promote PMTCT as it placed men in better off position. 63% (95) of the male respondents reflected that they cannot go to clinics for counseling and testing because it was an awkward and unthinkable environment for them to undergo a process that discusses sexuality and diseases with a complete stranger [counselors, nurses and district psychologists]. In this 63% threshold chauvinist perspectives seemed to dominate the makeup and beliefs built around HIV/AIDS in Magagula Resettlement area, most males reflected that they had not problems with their wives going for HIV/AIDS testing and counseling but would not partake because they were too busy in the fields and in fending for the family hence could not attend to feminine and trivial issues.

Fear of cultural victimization

98.3% (295) of the 300 female respondents reflected that adopting the clinical or medical route attracted punishment and reproach from community members. In this line of thinking culture was seen a direct assault towards PMTCT efforts. It was deduced that those who had been tested for HIV and were found positive were treated unfairly by community and had been given nametags and accused of labeling their husbands as irresponsible and sickly. This militates against the taking of antiretroviral therapy. In this case HBM relates to this finding in the case that socio-cultural dynamics within the Magagula community stands as

a modifying variable that discourages community members to embrace PMTCT.

Lack of support system

96% (289) of the female respondents opined that they were getting little or no support from their spouses and families in pursuing and understanding their femininity apart what is socially upright. Female respondents reflected that their male counterparts are not keen in taking part in issues that involve supporting them emotionally and psychologically. Voluntary counseling and testing (VCT) values support to those who are undergoing the process of knowing their statuses in order to achieve the highest levels of efficiency and effectiveness. Rwembeho [18] writes in a newspaper article titled "Voluntary HIV counseling and testing taken to families" that support systems are imperative in promoting awareness in communities hence the aim for involving families is to create a "Community allied against violence, HIV/AIDS and extreme poverty." This tallies with the finding established in this paper, lack of support systems in communities militates against full swing implementation of PMTCT in Magagula resettlement where the community overburdens those who are interested in VCT procedures.

Fear of the unknown

The interviewed audiences also reflected that they had fears/phobias that were haunting them to acquire VCT services. Both genders had their reservations about knowing about their HIV statuses which is the primary cornerstone to the effectiveness of PMTCT. UNFPA [19] observed that fear of stigma, discrimination and isolation and gender based violence are outcomes associated with one knowing their statuses. The fear of falling into these thresholds of social backlashes has stood as a hurdle in implementation of services meant to stamp out new infections. UNFPA [19] reports observed that some women would get beaten by their husbands if ever they mentioned issues related to HIV/AIDS, on other hand the report notes that stigma haunts people who wish to know of their statuses, capturing one respondent from their report the UNFPA [19] quotes one respondent as follows:

"My family would reject me if they found out that I was HIV positive".

The fear of the unknown seems to be one of the stumbling blocks, the imagination of what may happen blocks mothers from finding the truth about their statuses hence putting new lives at risk.

Access/proximity to medical institutions

The paper established that Mtholampilo Clinic serves a population of 3 735 residents in the Magagula district, its located in the growth point and some of the residents that it serves stay as far as 123 km from the clinic. The paper captured that PMTCT suffers logistical and programmatic issues in the Magagula district due to its proximity to the people it seeks to offer services to [20].

Focus group discussion

The focus group had 8 respondents. The dominating themes that were picked up from the interviews and questionnaires were also picked up from focus groups too. In this part of the section the difference was in the technical nature of the responses and the rich in responses that was born out of interaction and debate. The focus groups reflected that there was lack of synergy among the community in understanding what HIV and PMTCT, the lack of synergy was associated with the clash between the socio-cultural beliefs of the residents of Magagula district and the new technologies/new ways to pregnancy and delivering of babies. The clash impedes efforts that Mtholampilo clinic has made to encourage people to get tested for HIV/AIDS [21].

Workers from the Ministry of Health and medical practitioners from Mtholampilo clinic expressed shared sentiments on the lack of adequate resources in the implementation of the PMTCT programme in the resettlement. The concerns were that the clinic had no monetary/financial resources to plan, coordinate and even train the traditional midwives and local leadership on the importance of PMTCT and related issues and concerns **(Figure 1)**.

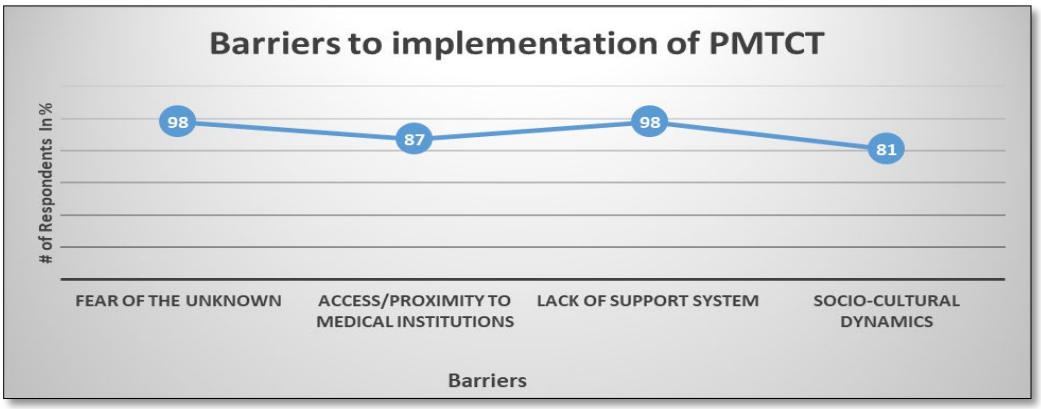

Figure 1. Barriers of PMTCT.

RECOMMENDATIONS

Community education and gender mainstreaming

HIV/AIDS as a disease is not being seen as community problem but it is labeled a feminine issue. There is need to empower and alter the community through education and behavioral change outreaches, this will lessen the feminization of HIV in Magagula Resettlement [22].

Training of traditional midwives

Training midwives on VCT issues may be a way to create awareness in the opinion leaders within the communities and create a much more welcoming and fertile ground for PMTCT to be taken up as a way to minimize new infections in babies and amongst the elderly in the area under study.

Partnerships

Strategic partnerships with NGOs and other players that are involved in Health and social development work are the most provident strategy to be adopted. Since hospitals are under-capacitated to carry the workload, having other stakeholders may improve the level of impact that the clinic and its programmes may have [23].

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