Open Access Journal
Indian Journal of Medical Research and Pharmaceutical Sciences
February 2016; 3(2)
ISSN: ISSN: 2349-5340
Impact Factor (PIF): 2.672

A GENDER-INCLUSIVENESS IN PMTCT: MODEL PRESENTATION

Dr. RM. Miya
Senior Lecturer, Durban University of Technology, Faculty of Health Science, Department of Nursing Science, P.O. Box 1334, Durban, 4000

***Keywords**: PMTCT, AIDS, HIV*

Abstract

The paper offers a comprehensive review of the current discourse on the prevention of mother to child infection in HIV/AIDS. Within this, a special focus is given to South Africa and modifiable challenges to the effective implementation of programs of prevention are offered. The review affirms the lack of agreement within previous research about the range of consistent barriers to implementation and equally importantly, the range of interventions that can be effected to improve engagement in prevention programmes.

The paper also presents a literature review, which focuses much more specifically on related literary sources that look at the factors that play an important part in determining patterns of PMTCT service uptake. As acknowledged earlier, research on the uptake of PMTCT confirms that usage remains unexplainably low and more notably, the South African picture is characterised by less success than is acceptable. One of the key issues of concern has been the limited involvement that male partners have had with regard to PMTCT service usage even in the face of research that shows that spousal involvement and/or the involvement of partners offers noteworthy potential in motivating affected pregnant women to take up PMTCT services. To foreground this noted knowledge-gap, the current review of literature aims to provide a comprehensive overview of current viewpoints and existing research evidence, to determine prominent viewpoints in the study area.

In addition to the synthesis function, the review was concerned with drawing attention to the range of previously published challenges that exist when implementing PMTCT.

Introduction

Executive summary

Miya (2014) explored and described lived experiences of females, males and health professional within prevention of mother to child HIV transmission in kwaZulu Natal public hospitals.

The study revealed the existing design of public hospitals was not wholly conducive to facilitating gender inclusiveness in maternal and child health services. Current resources were largely insufficient to support the participation of expectant mothers and any attempts to support the inclusion of males needed to be based on a clear increase in service provision, hence, Miya (2014) developed and gender inclusiveness model to facilitate a comprehensive HIV management during pregnancy.

Model development

Theory: an epistemological overview

The term 'theory' is widely utilised within scholarly discourse and from this, it would be apt to assume that it's meaning has been universally accepted. By contrast, this is not the case as indicated by MacDonald (1998), who acknowledges the lack of agreement about what it means and argues that the term is so widely used that it risks being rendered meaningless. In support of this observation, researchers and care professionals have over the years used a plethora of terminologies, such as conceptual models, conceptual frameworks and schematic models in describing the term theory. This use of different terminologies does not only cause confusion for care professionals, but also for researchers alike. To minimise confusion and to enhance care professionals' and researchers' insight

into the notion of theory and its development, it is important, within the current discussion to provide an operationalised definition of this term.

To do this, a number of definitions are examined. Polit and Beck (2012) offer a seminal definition and it considers a theory as an "abstract generalisation that offers a systematic explanation about how phenomena are interrelated". Embedded in this is the view that a theory has two related but distinct purposes; first in the explanation and secondly as a means to facilitate prediction. For example, a theory may provide explanations of how specific behaviours, such as non-adherence to treatment are related to outcomes like relapse in the specified condition. In relation to prediction, a theory may predict that the use of one intervention is more efficacious than the use of another less empirically tested alternative. Acknowledging these purposes, the definition proffered by Polit and Beck`s (2012) is specifically limited by its failure to take account of the descriptive element of theories. Flick (2006), offers an alternate definition and refers to theory as a set of categories that can thoroughly describe a single phenomenon. Such theories, which are sometimes referred to as descriptive theories are mainly employed in qualitative research for describing and categorising attributes possessed by individuals or groups or situations. Added to this, they serve as precursors to predictive and explanatory theories. Although different from Polit and Beck (2012), the latter definition is also limited as it only focuses on describing phenomena and their attributes. A widened review of the different definitions directed the researcher to a more inclusive definition by Walker & Avant`s (2011) which includes, not only what are considered as key elements of a theory, but also includes multiple purposes. In their definition, Walker and Avant (2011) view a theory as an,

> *"internally consistent group of relational statements that presents a systematic view about a phenomenon that is useful for description, explanation, prediction, and prescription or control*." (Walker and Avant, 2011)

The descriptive, explanatory, predictive, and prescriptive elements of the definition do not only represent its functions or purposes, but they also denote the different phases of theory development. Associated with the notion of theory development are the elements which theories are made up of. These are now discussed below, as theories cannot be understood in the absence of an understanding of their components.

Theory: A Reductionist Perspective

A cursory review of the literature reveals that theories are in the main made up of three distinct but interdependent elements. These elements are referred to as concepts, statements and theories, and are discussed sequentially below. In his seminal work, Hardy (1974) described concepts as the basic building blocks of theories. A similar description of concepts is offered by Gilbert (2006) and Polit and Beck (2012), all of whom agree that concepts are mental images, constructs, ideas, or symbolic representations of a thing (such as a table and a computer) or an action. This means concepts serve as potent means of understanding and explaining the world in which we live. In other words, concepts can enable people to gain insight into their experiences and their surrounding environments. This is because of their ability to enable people to identify and categorise their experiences in meaningful ways. It is through language that such understanding is developed (Langdridge, 2007).

Statements represent important elements of theory development and precede explanations or predictions (Gilbert, 2006). The relationships among concepts, sometimes expressed as principles or prepositions, are in the main represented using terms like "it is directly associated with' and "varies inversely with". This is an indication that statements in the context of theory development could assume relational or non-relational forms. Relational statements indicate their associations or relationships and may even include the direction of relationships. For example, the use of cannabis increases people's chances of developing mental health problems. However, in some instances, a phenomenon of a "none relationship" may exist, meaning that the occurrence of one concept says nothing about or has no impact on the occurrence of another. Associated with relational statements are the non-relational ones, which according to Walker and Avant (2011) are employed to clarify or make explicit meanings in theories. For example, an attitude is the overall evaluation of performing behaviour. This example, which is simply a definition of an attitude, links well with the final component of a theory, entitled "theories". Theories are sets of concepts and statements and to that end, a well-developed theory consists of relevant concepts and statements (principles) that are systematically organised to offer clear meanings of relationships as part of the articulation of the different approaches to theory development (Polit & Beck, 2012).

Theory development: A review of central approaches

Development of a theory is an iterative process that is usually guided by three interrelated approaches derivation, synthesis and analysis (Walker & Avant, 2011). Before continuing with this debate, it is fitting to offer brief explanations of these approaches followed by their application.

Derivation concerns the steps a theorist may take to transpose and re-structure any of the elements of a theory from one context or situation to another. This approach is not only applicable to subject areas where there are no theories, they can also be utilised in fields where existing theories are out dated and innovative ways of understanding the world are needed. Synthesis on the other hand relates to actions that theorists may employ to put together pieces of disjointed information to form a meaningful whole with the view of formulating a theory. From Polit & Beck's view, this approach is more applicable in circumstances where there are no explicit or clearly defined theoretical structures or frameworks. Generally, theorists use this approach in the data collection phase or analysis and interpretation phases of the research process. In a study of factors influencing patient's self-harming behaviours for example, researchers may use synthesis to arrange the factors into clusters as well as assigning names to the same. It is the same approach Smith, Flowers and Larkin (2007) employed in naming themes and super ordinate themes in interpretative phenomenological analysis. In fact, synthesis is a common approach used by qualitative researchers in formulating and naming emergent themes from data analysis.

Analysis is the final approach to theory development. It is about examining concepts, statements, and their relationships to each other and to the entire data set of a study (Newman, Smith, Pharris & Jones, 2008). Adopting this approach, allows for concepts, theories and statements to be refined, in other words it develops a better understanding of the phenomenon examined. Analysis, as an approach is applicable especially in situations where there is a body of extant and relevant literature to allow for the dissection of the whole into its component parts to better understand the same, as asserted by Bloom (1956).

The approaches thus far discussed may have to be repeated on several occasions before achieving a well formulated or refined theory. The iterative nature of the theory building process indicates that theory developers may move back and forth among the strategies or repeatedly employ a specific strategy until the desired quality of the theory developed is achieved. It must be stated that utilising a single approach may not address the needs for quality theory construction. Thus, the use of a mixture of approaches is recommended as the strength of one can help to minimise the impact of the weaknesses of the other. Even though this might the case, theorists often require some guidance in strategy identification and selection process. In light of this, Walker and Avant (2011) offer some suggestions. They assert the view that theorists need to have a clear understanding of the area of interest that requires exploration, and should take into consideration the following issues before making their choice of strategies. These include the quality of concepts and statements, and data quality of reviewed articles in the context of subject of interest. Once a strategy is selected, Walker and Avant (2011) stipulate, it should be utilised until saturation point when it fails to generate new information about the subject of interest. This is a call for theorists to turn to another strategy. Such a sequential approach to theory development suggests that strategies are interdependent and interrelated despite the provision of individual discussions. These strategies can be applied in all the phases of theory construction. Figure 6.4, below offers a diagrammatical representation of the phases in theory development.

Figure 6.4 Phases in Theory development

Theory development: Insights into application

The approaches of choice identified for the development of the theory in this study are synthesis and analysis. The application of these approaches is demonstrated here using two intellectual processes, induction and deduction. The strategy of synthesis is inductive as it is data based. Analysis on the other hand may involve both theorising inductively and deductively. This is a qualitative study that utilised the process of synthesis for the generation of concepts from both the extant literature and study findings. This process was adopted iteratively until the point of theoretical saturation. It was at this point; the researcher commenced the application of the approach of analysis. This in essence involved a close examination of the concepts identified for both similarities and differences and clustering those that were similar into thematic categories. These are presented below in a theoretical framework to support gender inclusive practice (GIP) within PMTCT.

Figure 6.5 - A Framework for Gender Inclusive Practice in PMTCT - (The G.I.P framework)

The emergent framework is not a statistically predictive tool but rather a diagrammatic representation of factors that emerged through the research process and that have an influence on engagement with PMTCT services. The theoretical represents a concise point of reference that provides a means of conceptualising the complex influences involved in understanding access to services by males. Also, it is hoped that the elements contained within the framework will have a transferable practical utility for care professionals in developing an understanding of the difficulties males have in ensuring meaningful engagement with PMTCT services. Earp and Ennett (1991) suggest that theoretical frameworks and models,

"… allow the inclusion of processes or characteristics not grounded in formal theory, but that represent empirical findings or the experience of practising professionals" (Earp & Ennett, 1991).

As indicated above, the proposed theoretical framework adheres to the principal focal areas related to Structural, Process and Outcome processes as prioritised with the Donabedian model which was used in this study as a guiding theory for data collection and theory generation. As noted above, this emergent theoretical framework utilises the elements from Donabedian's work but is not restricted to them as a reflection of the wider considerations that were reported on by participant populations. Notably, the theoretical framework identifies the following key factors that need modification within services to facilitate more gender inclusive services.

1. Service structure.
2. Primary resource capacitating.
3. Cultural inclusivity.
4. Service accessibility / Flexibility.
5. Gender based sensitivity.
6. De-stigmatisation Interventions.

Beyond the identification of the above as key "barrier entities" – the theoretical framework offers insights into corrective process modifications that service providers should include in service design and delivery thinking. The proposed theoretical framework represents an empirically supported eclectic guide on PMTCT service inclusivity and in spite of this will need to be subject to practice based testing. Even so, there are noteworthy strengths and weakness of the proposed framework and each are addressed below.

Strengths and weaknesses of theoretical framework

Although the framework developed serves as an informed identification of factors that may influence care provision and access, the identified factors are not weighted by importance, and the impact of each may vary from individual to individual. From a quantitative researcher viewpoint, this lack of weighting of influential factors can be seen as a weakness of this framework. However, it is consistently reiterated in the literature of qualitative research that human experiences are not quantifiable, and any attempt to quantify them can be seen as a direct contradiction of a key tenet of the current study.

From a qualitative methodology point of view, the researcher believes the framework has wider adaptability in its current form as it also takes into account individual variations in response to the influential factors. It serves as an educative support for care professionals in enhancing their understanding of the access needs of males within

PMTCT services and how these can be met in practice. Even though the framework has practical utility, there is scope for future researchers to test it using different alternate methodologies with the view to enhancing its practical value.

The theoretical framework is grounded on data elicited from a defined population in KZN in South Africa and as such, the identified influential factors may have limited application in describing issues as they relate to other areas and contexts. However, taking into account that data from an extended review of relevant and comprehensive literature contributed in the development of the framework, this structure may have wider applicability, meaning it can be applied to a wider population of PMTCT service users.

Acknowledgements
The researchers wish to thank all the participants for time and assistance, as well as the related stakeholders who ensure the success of the current study.

Competing interests
The authors declare that they no financial or personal relationship (s) which may have inappropriately influenced them in writing the article.

Concluding statements
The results of this study highlight key barriers to the inclusion of males in PMTCT services and utilises these findings to propose a theoretical framework to promote male inclusion. The engagement of service-users, their partners and professionals simultaneously offers unique insights into this important area of study. Importantly, the study demonstrates that it is possible for researchers to simultaneously consider the attributions for male exclusion from three data without compromising the academic value of the study and in a way that has practical value to service-users and service providers alike. By virtue of treading on untested ground with respect to the multi-approach data collection stance adopted, the study has much to learn and will benefit from testing and critique from future researchers.

References
1. AED. 2009. *Male involvement in PMTCT in Botswana*. From: http://coach.fh1360.org/libraries/prevention/male_involvement_in_PMTCT_ Botswana (accessed 10 March 2012).
2. Act, 50 of 1978 as amended : nursing Act. SANC: Pretoria.
3. Akarro, RRJ, Deonisia, M & Sichona, FJ. 2011. *An evaluation of male involvement on the programme for PMTCT of HIV/AIDS*: A case study LLala mucipality on Dar es Salaam, Tanzania. Arts and Social Sciences Journal 11(20):1-11.
4. Akpabio, I, Asuzu, MC, Fajemilehih, BR & Ofi, AB. 2009. *Effects of School Health nursing education interventions on HIV/AIDS related attitudes of students in AkwaIbon State, Nigeria*. Journal of Adolescent Health 44(09): 118-123.
5. Babbie, E & Mouton, J. 2011. The practice of Social Research. Southern Africa : Oxford Southern African
6. Boniphace, Y. 2009. *Willingness and participation toward prevention of mother to child transmission among males of reproductive age*. A study from Kilimanjaro- Tanzania. Tanzania Medical Journal 8(9): 23-26.
7. Botma, Y. Greeff, M. Mulaudzi, FM & Wright, SCD. 2010. Research in health sciences. Cape Town: Heinemann.
8. BHITS (The Breastfeeding and HIV international transmission study group). 2004. *Late postnatal transmission of HIV-1 in breastfeeding children: an individual patient data meta-analysis.* Journal infect Dis 189(4): 2154-2166.
9. Blaauw, D & Kekana, LP. 2010. *Maternal Health*. Centre for Health Policy, Faculty of Health Science: Wits University.
10. Bloom, BS. 1956. *Taxonomy of educational objectives handbook 1: The cognitive domain*. New York: David Mckay Co.
11. Burns, N & Grove, SK. 2009. The Practise of nursing research, sixth edition, Arlington: Saunders Elsevier.

12. Brink, H. 1997. Fundamentals of research methodology for health care professionals. Cape Town: Juta & Company.
13. Chinn, PE & Kramer, MK. 2011. Theory and nursing: a systematic approach. St Louis : Mosby.
14. Chinn, PL & Kramer, MK. 1991. *Theory and Nursing: A systematic approach*. St Louis: Mosby.
15. Chinn, PL & Kramer, MK. 1995. *Theory and Nursing: A systematic approach*. St Louis: Mosby
16. Chinn, PL & Kramer, MK. 1999. Theory and nursing integrated knowledge development. St Louis: Mosby.
17. Chinn, PL & Kramer, MK. 2011. *Theory and Nursing: A systematic approach*. St Louis: Mosby
18. Chopra, M, Daviaud, E, Pattinson, R, Fonn, S & Lawn, JE. 2009. *Saving the lives of South Africa's mothers, babies, and children: can the health system deliver?* Lancet 374(3): 835-846.
19. Collins, KJ, Plooy, D. Grobbelaar, MM, Puttergill, CH, Terre Blanche, MJ, Van Eeden, R, Van Rensburg, J & Wingston, J. 2007. *Research in Social Sciences*. study guide. Pretoria: University of South Africa.
20. Coetzee, D, Hilderbrand, K, Boulle, A, Draper, B, Abdullah, F & Goemaere, E. 2005. *Effectiveness of the first district-wide programme for prevention of mother to child transmission of HIV in South Africa*. WHO Bulletin 83(8): 489-494.
21. Cooper, D & Schindler, P. 2001. Business research methods. McGraw: Hill Irwin.
22. Crabtree, BJ & Miller, WL. 1999. Doing qualitative research (Research methods for primary care). SAGE Publications Inc.
23. Creswell, JW. 2012. *Research Design: Qualitative, Quantitative and Mixed Method approaches*. Four edition. Lincoln: Sage Publications.
24. Creswell, JW. 2009. Research Design: qualitative, Quantitative, and Mixed Methods Approaches. Third edition. Lincoln: Sage Publications.
25. Creswell, JW. 2003. Research Design: qualitative, Quantitative, and Mixed Methods Approaches. Second edition. Lincoln: Sage Publications.
26. Crombie, IK. 2003. Guide to Critical Appraisal. London: BMJ Publishing Group.
27. Department of Education. 1999. *Draft National policy on HIV/AIDS for learners and educators in public school, and students and educators in further education and training institutions*. RSA: Pretoria.
28. D'Antonia, A. 2009. Relationship between mind map learning strategy and crtical thinking. Walsh Library, Seton Hall University.
29. De Vos, AS, Strydom, H, Fouche, CB & Delport, CSL. 2012. *Research at grass root.* Pretoria: Van Schaik.
30. Dickoff, J, James, P & Wiedenbach, E. 1968. Theory in a practice discipline- Part 1: Practice Oriented Theory. Nursing Research Journal 17(5): 415-435
31. Doherty, T, Sanders, D, Goga, A & Jackson, D. 2010. Implementation of the new WHO guidelines on HIV and infant feeding for child survival in South Africa. WHO bulletin 10(3): 79-98.
32. DOH. 2008. *Prevention of mother to child transmission of HIV (PMTCT)*. Site manual. Pretoria: DOH.
33. DOH. 2010. Clinical guidelines: PMTCT (Prevention of mother to child transmission). Pretoria: DOH.
34. DOH. 2010. *National Antenatal sentinel HIV and syphilis prevalence survey in South Africa*. Pretoria: DOH.
35. DOH. 2011. Policy *directive for the implementation of the South African declaration on support of exclusive breastfeeding and revised guidelines on infant and child feeding*. Policy draft. Pretoria: DOH.
36. Donabedian, A. 1980. *Explorations in Quality Assessment and Monitoring Volume I: The Definitions of Quality and Approaches to its Assessment*. Medical Care, 19(10): 1066-1067.
37. Donabedian, A. 2005. *Evaluating the Quality of Medical Care*. The Milbank Quarterly, 83(4): 691–729.
38. Donabedian, A. 1969. *Some issues in evaluating the quality of nursing care*. American Journal of Public Health, 59(3): 1833 – 1836.
39. Earp, JA. & Ennett, ST. 1991. *'Conceptual models for health education research and practice', Health education research*, vol. 6, June, pp. 163-171
40. Elizabeth Glaser Paediatric AIDS foundation. 2011. *Male involvement in PMTCT: Reaching men through syphilis testing*. Study brief. From : www.pedaids.org/publications/maleinvolvement (accessed 10 March 2012).
41. Elizabeth Glaser Paediatric AIDS foundation. 2010. *Working with men to improve PMTCT outcomes*. Presentation transcript. From: www.pedaids.org/publications/maleinvolvement (accessed 10 March 2012).
42. Flick, U. 2009. An introduction to qualitative research. 4th edition. Los Angeles: SAGE Publications.

43. Flisher, A. 2012. Mother in Distress. Nursing update. 37(2):56-58.
44. Frankel, RM & Devers, KJ. 2000. Study design in qualitative research: sampling and data collection strategies. Education for Health 13:263-271.
45. Gazzard, J. 2011. Health Sciences Literature Review Made Easy: The Matrix Method. Sudbury, Mass: Jones and Bartlett Learning
46. Gilbert, J. 2006. Overview in Farrell, C, Towle, A and Godolphin, W (eds). *Where's the patients voice in Health Professional Education?* A report from the 1st International Conference organised by the Division of Health Care Communication, University of British Columbia
47. Government of South Africa. 2007. *HIV and AIDS and STI*. Strategic plan for South Africa, 2007-2011. Pretoria.
48. Guest, G, McQueen, KM & Namey, EE. 2012. *Applied Thematic Analysis*.USA: SAGE.
49. Hasani, L, Aghanolaei, T, Tavafian, SS & Sabili, A. 2010. *Knowledge of Iranian nurses about HIV/AIDS: A cross sectional studies Bandar Abbas*. Iranian Journal of Clinical Infectious Disease 5(3): 161-165.
50. Hardy, ME. 1974. *The nature of theories*. In ME Hardy (Ed). Theoretical foundations for nursing (10-22). New York: MSS information Corp.
51. Harrison, D. 2011. *An overview of Health and health care in South Africa 1994-2010: priorities, progress and prospects for new Gains*. Commissioned by Henry J. Kaiser Family foundation.
52. Harrison, D. 2009. *An overview of Health and health care in South Africa 1994-2010: priorities, progress and prospects for new Gains*. Commissioned by Henry J. Kaiser Family foundation.
53. Health Bridge. 2011. *Challenges in the Prevention of Mother to Child Transmission of HIV in Africa*. Health Bridge Journal 1(2): 1-6.
54. Health System Trust. 2011. *Risk factors for HIV vary between African cities, need tailored responses*. From: mhtm/:file:www.hst.org.za (accessed 1 November 2011).
55. Health System Trust. 2011. *Zimbabwe: Rate of male circumcision speeds up*. From: mhtm/:file:www.hst.org.za (accessed 1 November 2011).
56. Horwood, C, Haskins, L, Vermaak, K, Phakathi, S, Subbaye, R & Doherty, T. 2010. *Prevention of mother to child transmission of HIV (PMTCT) programme in KwaZulu-Natal, South Africa: An evaluation of PMTCT implementation and integration into routine maternal, child and women's health services*. Tropical Medicine and International Health Journal. 15(9): 992-999.
57. Holloway, I & Wheeler, S. 1996. Qualitative Research for Nurses. Oxford: Blackwell Scientific Publications.
58. Human Right Watch.2011. *"Stop Making Excuse": Accountability for Maternal Health care in South Africa.* From: http://www.hrw.org (accessed 8 March 2012).
59. Human Sciences Research Council (HSRC). 2009. *South Africa National HIV prevalence, incidence behaviour and communication survey 2008: a turning tide among teenagers*. Public health Journal. 29(4): 250-269.
60. Jackson, DJ, Chopra, M, Doherty, TM, Colvin, SE, Levin, JB, Willumsen, JF, Goga, AE & Moodley, P.2007. *Operational effectiveness and 36 week HIV-Free survival in the South African programme to prevent mother to child transmission of HIV-1*. Lippincott Williams & Wilkins. 21(7): 509-516.
61. Jewkes, R. 2009. *Understanding men's health and health care in South Africa 1994-2010: Priorities progress and prospects for new Gains*. Commissioned by Henry J. Kaiser family foundation. Pretoria.
62. Joheness, SA, Sherman, GG & Varga, CA. 2008. Exploring socio-economic conditions and poor follow up rates of HIV exposed infants in Johannesburg, South Africa. Public health Journal 17(2): 466-470.
63. Johnson, L. 2009. *HIV and Health- HIV prevalence in children*. Centre for infection Disease Epidemiology and Research: University of Cape Town.
64. Beel, J & Langer, S. 2011. An Exploratory Analysis of Mind Maps. http://www.academia.edu/1513523/An_Exploratory_Analysis_of_Mind_Maps.
65. Kunene, B & Kekana, LP.2009. *Midwives' Perspectives on HIV/AIDS care in maternal health services*. RSA: Midwives Aids Alliance.
66. Knebel, E, Primsy, M, Devirois, R. Meeejour, MR, Lemaire, MDN, Duvilaire, MMC, Gardenia, M, Legagneur, EVL, Thomas-Riche, C, Dames, A & Behrens, C. 2008. Developing a competency-based curriculum on HIV/AIDS for nursing school in Haiti. From: www.go2itech.org (accessed 10 March 2012).

67. Krippendorf, KH. 1986. Information Theory. Structural models for qualitative data. Pennyslavania: SAGE Publications Inc.
68. KZNHealth, 2010. Prince Mshiyeni Memorial Hospital. From:www.kznhealth.gov.za (accessed 10 January 2012).
69. KZNHealth, 2012. *PMTCT report*. From:www.kznhealth.gov.za (accessed 14 February 2012).
70. Langdridge, D. 2007. *Phenomenological Psychology: Theory, Research and Method*. Harlow: Pearson Education.
71. Lemens, CL. 2010. *Male partner involvement in PMTCT reduces HIV transmission risk*. Journal of AIDS. 1(11): 11-16.
72. Lincoln, YS & Guba, EG.1985. *Naturalistic inquiry*. London: Sage.
73. Lo-Biondo-Wood G & Haber. J. 2010. *Nursing Research: Methods and Critical Appraisal for Evidence-Based Practice.* St. Louis, Missouri: Mosby Elsevier.
74. Machet, MP & Maepa, ME.2007. *Research methods in information science*. study guide. Pretoria: University of South Africa.
75. Macdonald, MT. 2007. *Nurse–Patient Encounters*. *Advanced Emergency Nursing Journal* 29(1):73–81
76. Mayring, P. 2010. *Qualitative content analysis*. Journal of Public Health. 60(54):231:236.
77. Marshall, C & Rossman, GB. 2010. *Designing Qualitative Research*. 5th edition. London: Sage.
78. Minnie, K, Klopper, H & Walt, C. 2011. *Factors influencing counselling for HIV testing of pregnant women as perceived by lay counsellors*. Evidence based midwifery 9(4): 112-117
79. Miya, RM. 2014. A MODEL TO FACILITATE GENDER –INCLUSIVENESS IN MOTHER TO CHILD TRANSMISSION:- AN ANALYSIS OF A HIV/AIDS PROGRAMME IN KWAZULU NATAL**, UNISA: Pretoria**
80. Mohart, G & Eller, LS. 2009. *HIV/AIDS and Universal precautions: Knowledge and attitudes of Nepalese nursing students*. Journal of Advanced Nursing. 65(9): 1907-1915.
81. Morse, JM. 1994. *Critical issues in qualitative research methods*. London: Sage
82. Morse, JM. 2003. *Nursing Research: the application of qualitative approaches*. London: Chapman & Hall.
83. McKerrow, N & Mulaudzi, M. 2010. Child mortality in South Africa: using existing data. SAHR 59(1): 59-72.
84. Mouton, J & Marais, HC. 1996. Basic concepts in methodology of social sciences. Pretoria: Human Science Research Council.
85. Mouton, J. 1996. Understanding social research. Pretoria: JL. Van Schaik.
86. Muller, M, Bezuidenhout, MC & Jooste, K. 2006. *Health care service management.* Cape Town: Juta.
87. Mnandi-Okangue, R. 2009. *An investigation into the factors affecting the utilization into the factors affecting the utilization of mother to child transmission services by human immune-deficiency virus positive women in Onitsha, Anambra State, Nigeria*. UNISA: Pretoria.
88. Newman, MA, Smith, MC, Pharris, MD & Jones, D. 2008. The *focus of the discipline revisited*. Advances in Nursing Science, 31(1). 16-27
89. Ndungu, T. 2011. *HIV replication*. From: http://www.ukzn.ac.za/new.aspx (accessed 10 January 2012).
90. Nichol, E & Brandshaw, D. 2010. *Maternal, new born and child survival: data challenges*. Burden of Disease Research Unit: SA Medical Research Council (MRC).
91. Nuwagaba, H, White, RT, Okong, P & Carpenter, LM. 2007. *Challenges faced by health workers in implementing the prevention of mother to child HIV transmission (PMTCT) programme in Uganda*. Public health Journal. 29(3): 269-274.
92. Ohnishi, M, Nakwamura, Z, Keiko, K, Kizuki, M, Seino,K, Inose, T & Takano, T. 2008. *Caregivers' knowledge regarding HIV/AIDS and Attitude towards HIV/AIDS and orphans in Nigeria*. Health and Social care in the community Journal 16(5):483-492.
93. Onyango, D. 2008. *Great Challenges to PMTCT in the South: the role of the developed nations in supporting strategies that works*. Lecture presentation. Retrovirology Journal 5 (8): 1-2.
94. Parahoo, K. 2006. *Nursing Research: Principles, Process, and Issues*. 2nd edition. New York: Pelgrave Macmillan.

95. Perez, F, Orne-Gliemann, J, Mukotekwa, T, Miller, A, Glenshaw, M, Mahomva, A & Dabis, F. 2004. *Prevention of mother to child transmission of HIV: evaluation of a pilot programme in a district hospital in rural Zimbabwe*. Biomedical Journal. 329 (7475): 1136-1147.
96. Petre, M & Rugg, G. 2010. The Unwritten Rules of PhD Research. Maidenhead, England. NY: McGraw-Hill International/Open University Press.
97. Pickles, D, King, L & Belan, D. 2011. *Undergraduate nursing student's attitudes towards caring for people with HIV/AIDS*. From: www.elsevier.com/nedt (accessed 28 February 2012).
98. Pickles, D, Kinge, L & Belan, D. 2009. *Attitudes of nursing students towards caring for people with HIV/AIDS*: thematic literature Review. Journal of Advanced Nursing. 65(11): 2262-2273.
99. Piscal, H, Sutar, S, Sastry, J, Kundu, N, Joshi, A, Josi, M, Leslie, J, Scotti, V.Bhanrucha, K, Suryavanshi, N, Phadke, M, Bollinger, R & Shankar, A. 2007. *Nurses' Health education Programme in India increases HIV knowledge and reduces fear*. Journal of the Association of Nurses in AIDS care 18(6):32-43.
100. Polit, DF & Hungler, BP. 2004. Nursing Research: Methods. Lippincott: Williams & Wilkins Publishers.
101. Polit, DF & Beck, CT. 2008. Nursing research: Generating and Assessing evidence for nursing practice. 8th edition. Lippincott: Williams & Wilkins. Polit, DF & Beck, CT. 2012. *Nursing research: generating and assessing evidence for nursing practice*, 9th Edition, Lippincott Williams & Wilkins.
102. Princeton, K.2010. *Sero-prevelance of HIV among pregnant women*. Americal Health Journal. 10(20) :320-335.
103. Relf, MV, Mekwa, J, Chasokela, C, Nhlengethwa, N, Letsie, E, Ntengezo, J, Ramantele, K, Diesel, T, Booth, C, Deng, L, Mallinson, RK, Webb, A, Liddle, A, Yu-Shears, J, Hall, C, Aranda-Naranjo, B & Hopson, DP. 2011. *Essential nursing competencies related to HIV and AIDS*. Journal of the Association of nurses in AIDS care. 22(1): 1-37.
104. Rollins, N, Little, K, Mzolo, S. Horwood, C & Newel, M. 2007. *Surveillance of mother to child transmission prevention programmes at immunization clinics: the case for universal screening*. Lippincott Williams & Wilkins. 21(20) : 1341-1347.
105. RSA. 2011. *Policy directive for the implementation of the South African declaration on support of exclusive breastfeeding and revised guideline on infant and young child feeding*, draft, From: www.kznhealth.gov.za (accessed 10 February 2012).
106. Saks, M & Allsop, J. 2013. Research Health: Qualitative, Quantative and Mixed Methods. London: SAGE.
107. Sedibe, Z & Goosby, K. 2011. Breastfeeding vs. HIV infection. Journal of the Association of Nurses in AIDS care. 22(1): 39-42.
108. Sheahan, F. 2010. *Preventing the preventable: An analysis of CRC concluding observation on the right of survival*. Sewen: Elanders.
109. Sherman, GG, Jones, SA, Coovada, AH, Urban, MF & Bolton, KD. 2004. *PMTCT from research to reality- results from a routine service.* South African Medical Journal. 94(4): 289-292.
110. Shields, PM & Rangarajan, N. 2013. A Playbook for Research Methods: Integrating Conceptual Frameworks and Project Management. Stillwater, OK: New Forums Press.
111. Shenton, AK. 2004. strategies for ensuring trustworthiness in wualitative research project. Education for information Journal. 22(2):63-75.
112. Statistics South Africa. 2008. *Mortality and causes of death in South Africa, 2006: findings from death notification*. Pretoria: Statsa.
113. Smith, JA, Flowers, P & Larkin, M. 2007.*Interpretative phenomenological analysis: theory, method and research*, UK: SAGE Publications.
114. Statistics South Africa. 2010. *Mid-year population estimates*. Pretoria: Statsa.
115. Skinner, D, Mfecane, S, Gumede, T, Henda, N & David, A. 2005. *Barriers of accessing PMTCT Services in rural area of South Africa*. African Journal of AIDS Research. 4(2): 115-123.
116. Stringer, EM, Chi, BH, Chintu, N, Creek, T, Ekouevi, DK, Tih, P, Boulle, A, Dabis, F, Shaffer, N, Wilfert, CM, Stringer, JSA & Coetzee, D. 2008. *Monitoring effectiveness of programmes to prevent mother-to-child HIV transmission in lower-income countries*. WHO Bulletin. 86(1): 57-62.
117. Soanes, C & Hawker, S. 2008. *Compact Oxford English Dictionary of Current English*. Oxford: Oxford University Press.

118. Tint, K, Doherty, T, Nkonki, L, Witten, C & Chopra, M. 2003. An education of PMTCT and infant feeding training in seven provinces of South Africa. From: http://www.hst.org.za (assessed 29 February 2012).
119. Theuring, S, Mbezi, P, Luvanda, H, Harder, BJ, Kunz, A & Harms, G. 2009. *Male involvement in PMTCT services in Mbeya Region, Tanzania*. Dol Journal 10(1): 1007-1016.
120. Treger, T. 2007. PMTCT in South Africa: Using Botswana as a comparison, in saving babies 2000-2005: fifth perinatal care survey of South Africa. Edited by RC. Pattinson. Pretoria: Medical Research Council 2(1):99-105.
121. Tylleskar, T, Jackson, D, Meda, N, Engebretsen, IM, Chopra, M, Diallo, AH, Doherty, T, Ekstrom, EC, Fadnes, LT, Goga, A, Kankasa, C, Klungsoyr, JI, Lombard, C, Nankabirwa, V, Nankunda, JK, Van de Perre, P, Sanders, D, Shanmugam, R, Sommerfelt, H, Wamani, H, Tumwine, JK. 2011. Exclusive breastfeeding promotion by peer counsellors in sub-Saharan Africa. PROMISE-EBF Study Group.
122. Uganda Health Ministry. 2001. *Policy for reduction of MTCT in Uganda*. Uganda: Ministry of Health.
123. University Of Johannesburg. 2009. *Theory for health promotion in nursing*. Johannesburg: Nursing Science Department.
124. UN. 2011. *The Millennium Developmental Report 2011*. From: www.un.org (accessed 24 February 2012).
125. UNAIDS. 2005. AIDS epidemic update. Geneva: UNAIDS.
126. UNAIDS. 2008. *Report on the global AIDS epidemic*. Geneva: UNAIDS (34).
127. UNAIDS. 2010. *UNAIDS report on global AIDS epidemic*. Genev
128. UNESCO (United Nation Educational, Scientific and Cultural Organization). 2011. *International clearing house on Curriculum for HIV/AIDS education*. From: www.mhtml:file://G:/SouthAfrica/unesco/education.mht. (Accessed 9 November 2011).
129. UNAIDS. 2011. *Count down to Zero: Global plan towards the elimination of new HIV infections among children by 2015 and keeping their mothers alive 2011-2015.* Geneva.
130. UNICEF. 2008. *The state of the world's children*. From: http://www.child.info.gorg/file/lancet2009 (accessed on 8 November 2011).
131. UNICEF. 2011. South Africa: PMTCT. From: www.unicef.org (accessed 23 February 2012).
132. Uys, L & Basson, C.1991. *An exploratory descriptive research design*. University of KwaZulu-Natal: Nursing Department.
133. Uzochukwu, B, Uguru, N, Ezeoke, U, Onwujekwe, O & Sibeudu, T. 2010. *Voluntary counselling and testing (VCT) for HIV/AIDS: A study of the knowledge, awareness and willingness to pay for VCT among students in tertiary institutions in Enugu, Nigeria*. Elsevier Journal 99(11): 277-288.
134. Walker, LO & Avant, KG. 1995. Strategies for theory construction in nursing. Connecticut: Appleton.
135. Walker, LO & Avant, KC. 2011. *Strategies for theory construction in nursing*, NJ: Pearson Prentice Hall, Upper Saddle River.
136. Wentz, E. 2014. How to Design, Write and Present a Succesful dissertation Propsal. Thousand Oaks Publications. California. SAGE.
137. Western Cape Health. 2002. Summary PMTCT Protocol. Western Cape Provinc
138. WHO. 2005. *Maternal mortality in Viet-Nam 2000-2001: an in-depth analysis of causes and determinants.* Geneva: WHO Publications. WHO. 2007. *PMTCT.* Briefing note. Geneva: WHO publications.
139. WHO. 2007. *Task shifting to tackle health workers shortages*. Geneva: WHO publications.
140. WHO. 2008. *Gender, women and health inequalities and HIV*. From : http://www.who.int/gender/hiv-aids/en/index.html (accessed 10 January 2012).
141. WHO. 2010. *Technical consultation on elimination of Mother to child transmission of HIV*. From: www.int/hiv/events/mtct/en/index/html (accessed 9 September 2011).
142. WHO. 2010. Key facts on global HIV epidemic and progress in 2010. Progress report 2011. Geneva: WHO.
143. WHO. 2011. Key facts on global HIV epidemic & progress in 2010. Geneva : WHO publications.
144. WHO, UNAIDS & UNICEF. 2011. Global HIV response: epidemic update and health sector progress towards universal access 2011 progress. From: www.who.int/topics/hiv_aids (accessed 21 February 2012).
145. WHO, UNAIDS & UNICEF.2010. *Towards universal access: Scaling up priority HIV/AIDS interventions in the health sector*. Geneva.

146. WHO.2011. *Mother–to-Child transmission of HIV*. From: http://www.who.int/hiv/topics/mtct/en (accessed 11 January 2012).
147. WHO. 2012. MDG4: reduce child mortality. From: www.who.int/topic/millenium development goals/child mortality (accessed 22 February 2012).
148. WHO. 2012. MDG5: improve maternal mortality. From: www.who.int/topic/millenium development goals/maternal health (accessed 22 February 2012).
149. WHO. 2012. Hormonal contraception and HIV. Technical statement. Geneva: WHO publications.
150. Williams, AB, Wang, H, Burgess, J, Chenghui, W, Gong, Y & Yao, L. 2004. Effectiveness of an HIV/AIDS educational programme for Chinese nurses. Journal of Advanced Nursing. 53(6): 710-720.
151. Woods, BS & Cantanzaro, M 1998. Nursing research : Theory and practice. St Louis: Mosby.
152. Yoder, RE, Preston, DB & Forti, EM. 1997. *Rural School nurses' attitude about AIDS and Homosexuality*. Journal of School Health 67(8): 341-347.