

A red ribbon is draped across a blue fabric background. The ribbon is the central focus, with its folds and texture clearly visible. The blue fabric has a fine, woven texture.

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**A benchmark qualitative study of health service delivery in Botswana in 1989:  
Nurse assessments of the primary healthcare system before the nationwide  
spread of HIV/AIDS**

James G. Linn, Debra Rose Wilson and Thabo T. Fako

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*Full Length Research Paper*

# A benchmark qualitative study of health service delivery in Botswana in 1989: Nurse assessments of the primary healthcare system before the nationwide spread of HIV/AIDS

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An evaluation of the "watershed" Meharry-Botswana nurses training program in 1989 (Linn and Fako, 1990) confirmed that the maternal, child health, and family planning nursing practices taught by the multi-year education intervention in the 1970s had been widely disseminated and adopted. Based on a national sample of over 350 practicing nurses, this was strong evidence of the high clinical capacity of the primary healthcare system which was soon to be challenged by a generalized epidemic of HIV/AIDS. While the quantitative data from this evaluation was published, the qualitative information, which includes in-depth local nurse assessments of important parameters of the national primary healthcare system was reported, but remained unpublished until included in this manuscript. From this detailed information, we can develop a deeper understanding of the nurse clinician perceived strengths and weaknesses of Botswana's primary healthcare system in 1989, immediately prior to the nationwide spread of HIV/AIDS. The findings show the high professionalism and resilience of the Botswana nurses - qualities that helped them to successfully address the HIV/AIDS pandemic several years later.

**Key words:** HIV care, nursing, Botswana.

## INTRODUCTION

At independence in 1966, Botswana inherited from Great Britain a hospital based healthcare system with limited capacity for nationwide service delivery. National policy makers addressed this situation with the establishment of an integrated geographically disperse healthcare system which was largely staffed and run by nurses. This

included mobile stops and health posts which served remote villages and cattle outposts in the Kalahari and other locations, clinics that offered higher level services to larger communities, and hospitals in cities. The Meharry Medical College nurses training program (1973-1978) sponsored by USAID was a key component in the

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reorientation of Botswana nursing from a colonial hospital based model to a community focused program. Over 400 selected clinician leaders were retrained in maternal and child health and family planning (MCH/FP) nursing methods.

In the decade of the 1980s, the combined effects of unprecedented economic prosperity and a restructured healthcare delivery system with upgraded nursing personnel produced levels of health and well-being in Botswana rarely experienced in the developing world. By 1988, infant mortality had fallen to 37.4 per 1,000 and life expectancy at birth had risen to 65 years (BFHS, III, 1996). While the health status of the Botswana population was severely compromised by the HIV/AIDS pandemic during the 1990s, the integrated, community based, mostly nurse staffed national healthcare system, held firm, and in collaboration with international agencies, "turned the tide" on the illness. After reaching a prevalence of 38.6% of the adult population in 2001, the HIV/AIDS infection rate has fallen throughout the new millennium (Government of Botswana, 2009). Currently there is an adult prevalence of 21.9%, with 69% of infected adults on antiretroviral treatment (UNAIDS Gap Report, 2014).

## Significance

An evaluation of the "watershed." Meharry-Botswana nurses training program in 1989 (Linn and Fako, 1990) confirmed that the MCH/FP nursing practices taught by the multi- year education intervention in the 1970s had been widely disseminated and maintained. This was evidence of the high clinical capacity of the national primary healthcare system which was later challenged by a generalized epidemic of HIV/AIDS. While the quantitative data from this evaluation was published, the qualitative information, which includes in-depth local nurse assessments of important parameters of the national primary healthcare system, was reported, but remained unpublished until included in this manuscript. From this detailed information, we can develop a deeper understanding of the nurse clinician perceived strengths and weaknesses of Botswana's primary healthcare system in 1989, immediately prior to the nationwide onslaught of HIV/AIDS. A well trained, professionally committed, and individually resilient nursing staff was needed to treat the large wave of newly infected patients in the 1990s.

## METHODS

### Study design and sample

During 1989, 360 Botswana nurses working in healthcare facilities

of various types in all regions of the country were personally interviewed with regard to their involvement in MCH/FP nursing practices, which originally had been introduced by the Meharry training program, and their perceptions of primary care health service delivery. The questionnaires were in English, however the interviewers were from Botswana and could resolve any language difficulties with the interviewees. For this analysis, which is focused on qualitative assessments of health service delivery, we randomly selected one third, 120, of the completed questionnaires. Before participating, the nurses signed a consent form, which together with the overall study, was approved by the University of Botswana and the Ministry of Health. The study authors had no financial or other interest which could have influenced the study.

## Measures

For perceptions of the change to providing comprehensive community based primary care, nurses were asked "What do you understand by integration of health services?" To obtain detailed information on involvement in primary care and community health nursing, the clinicians were requested to "List the five most important tasks you perform in your work in order." As an in-depth inquiry into obstacles to the delivery of obstetrical care, the providers were asked "How often do you encounter problems with traditional birth attendants?" For assessments of problems associated with the delivery of pre-natal care and family planning services in the community, nurses responded to "Is there anything else that makes it difficult for you to give pre-natal education or carry out pre-natal examinations?"; "Is there anything else that makes it difficult to carry out family planning activities?"; "Is there anything that makes it difficult for you to provide family planning services to young people?" Finally, clinicians were given an opportunity to discuss post-natal care and offer general comments on the status of MCH/FP and nursing in Botswana in response to the questions "Is there anything else that you would like to say about post-natal care?", and "Please make any general or specific comments about MCH/FP and/or nursing in Botswana."

## Data coding and analysis

The eight selected qualitative questions from the entire survey were examined in 120 randomly selected written surveys. Answers were transcribed exactly as written into a document table. Grounded theory analysis was used to examine the data. Each question was analyzed separately, first coded for meaning. Codes were collapsed and categorized into general areas and themes developed. Theory is discovered from data through this process (Glaser and Strauss, 1999).

## FINDINGS

### Integration of health services

Participants discussed the change to offering comprehensive services to clients, rather than select services scheduled at fixed times. A family wanting postpartum support with health issues, infant wellness checks, and contraception options prior to integration of health services had to come to the clinic on three different days

to be seen by the appropriate program. With service integration, all services were available with one stop visits. The perception of the experience of change in practice presented a significant dichotomy in thinking from participants.

### ***Service integration as scheduling change***

Approximately half of the respondents described the shift in practice as a scheduling change influencing the order and scope of their own personal tasks. Their understanding reflected that the changes were clinic driven.

"This means providing healthcare at the same time. For example, doing antenatal care, FP/MCH and providing curative care at the same time."

### ***Service integration to meet community needs***

The other respondents saw the shift in practice as a family oriented approach to meet community needs.

"It is whereby patients are given healthcare whenever they want the services, e.g. if a mother comes to FP clinic she can bring her child to well baby care clinic at the same time."

"It is a family oriented approach whereby all MCH/FP services are provided on a daily basis to a mother and her family on a single visit."

This group seemed to be more other oriented. There were no significant differences in the group by demographics or scope of practice. Those who saw the integration of health services as community needs driven displayed a more holistic and empathetic understanding of the issues faced by their patients (that is, waiting for long periods, numerous visits to the clinic).

The dichotomy reflected in the data might have reflected two different populations of nurses. One group perceived the whole process and direction of service developed from community need. The other group perceived integration as change in scheduling and clinic driven change. This dichotomy of thinking might be reflected in Benner's theory (Current Nursing, 1994). A nurse moves along the growth continuum of developing nursing skills and becomes less task oriented in practice and more holistically sees the process in nursing. More importantly, these findings show that the nurses understood that they were part of an integrated healthcare system which could offer a wide range of services to patients nationwide. This understanding of the strength of their integrated work organization contributed to their confidence as professionals and they could

successfully confront the challenge of HIV/AIDS when it came in the early 1990s.

### **The five most important nursing tasks performed**

The most common answer for the most important task was patient consultation, chosen by 56 of the participants. Patient consultation was also the most common selection as the second most important, chosen by 17 respondents. The most common response for the third most important task was dispensing medications, chosen by 13 respondents. Dispensing medications was also the most common response for the fourth most important task, chosen by 16 respondents. The most common answer for the fifth most important task was performing immunizations and injections, chosen by 11 respondents.

### ***Individual focused primary care***

Consultation includes direct patient contact, assessment, patient education, and treatment when deemed appropriate. This role is primary care, individual-focused, and essential to the health of those served. Consultation involves direct interaction with the patient and provides teachable moments for educating the patient about health issues.

"(I) perform preliminary examination of patients assessing and observing their clinical conditions, taking a medical history of new and repeat cases."

### ***Community health nursing***

There was also a strong community health nurse role identified with the data, where the participants serve the population by performing health services and providing preventive health education in the community to individuals and at risk populations.

"(I) deliver maternity patients in the clinic and also attend to call outs to deliver laboring mothers and attend ill patients who are unable to come to clinic."

"(I) conduct surveys on immunization and organize seminars for faith healers."

"Another important task is referring and escorting patients to the hospital for the doctor to see."

The participants are defining a form of care that is both primary direct care and community based public health nursing. The community health nursing they were practicing over 25 years ago was quite advanced for the time, and had yet to be articulated by nursing theorists.



### **Frequency of problems with traditional birth attendants**

These lay birth attendants had no formal midwifery training. It was clear that the nurse participants looked upon the traditional birth attendants (TBAs) with disdain, thought that their skills, particularly in emergency deliveries, were poor, and reported that the lay workers were afraid to come forward and be recognized. Communication between the traditional birth attendants and healthcare professionals was nonexistent.

### ***Tension between nurses and traditional birth attendants***

"Most of the time (there are problems). Most of the TBAs do not want to work hand in hand with the health workers and they do not want to be identified."

"Sometimes (there are problems). The problems I encountered are that the TBAs sometimes take too long with clients labor and only bring them over when it is too late as complications have already occurred."

### **Obstacles to delivery of pre-natal education and examinations**

The expected response to this question was seen throughout the participant responses, including inadequate facilities, equipment, and staff. Unexpectedly, an issue frequently shared was the "ignorance", "illiteracy," and "inadequate knowledge" of those they served in self-care, in pregnancy, and the role of the midwife. Traditional cultural, spiritual, and healing practices also conflicted with the attempt to apply evidence-based biomedical interventions.

### ***Limited infrastructure, low patient education and traditional beliefs***

"Shortage of staff, administrative problems, poor clinic construction, lack of communication, e.g. phones or radio messages (are obstacles)."

"The fact that not all expectant mothers register for ante natal care and the problem of ignorance and illiteracy makes it difficult for prenatal mothers to do as they are educated to do."

"Culture and religious beliefs don't let people be examined thoroughly."

### **Obstacles to completion of family planning activities**

#### ***The FP barriers of patriarchal culture and religious beliefs***

The patriarchal culture and religious beliefs were identified

as the main barriers to family planning education and prescription. The male partners did not come to the clinic, had a poor knowledge base about the use and effect of contraception, and actively discouraged the use of family planning for women." They think by using FP they are committing an abortion." Women who did attend the family planning services often did so without the husband's knowledge.

The nurses shared their personal struggle with the issue of providing family planning services.

"In the case of a husband being against family planning, I create a feeling of uneasiness, an ill feeling when encouraging family planning to a client who believes her husband's view is right when they have many children and are unable to care for them."

"(The husbands) think nurses are teaching their wives how to have as many boyfriends as they can."

### **Obstacles to providing family planning activities for youth**

#### ***Community barriers to FP for youth***

The participants reported the most common barriers to reaching the younger population with family planning services including shyness, ignorance, religious beliefs, and difficulty with compliance when applying education.

"They are shy to talk to me and thus are anxious to finish the talk as soon as possible."

"Cultural beliefs; lack of proper understanding on how to use a method, e.g. the pill (are difficulties)."

"In my area the inhabitants refuse because of religious affiliations."

#### ***Professional barriers to FP for youth***

The nurses also identified personal and professional barriers to providing service that included discomfort with treating teens without parental consent, especially the very young, and concern that giving contraception maybe perceived as permission to be sexually active.

"Lack of knowledge of policies (is a difficulty). I don't know whenever I should supply a teenager with contraceptives. I should obtain consent from parents first. It really makes me very insecure."

### **Post-natal care utilization**

Overwhelmingly, participants reported poor attendance at post-natal care, but valued the services for increasing

parenting competence, providing opportunities to educate about immunization, and promotion of breastfeeding and family planning services. Reasons cited for poor attendance included inadequate understanding of the importance of the service, cultural beliefs that a woman should stay in the home for 3 to 6 months post-partum, inadequate information about post-natal clinic, and inadequate transportation to the clinic over long distances.

### ***Post-natal care valued by nurses but poorly attended***

"Post-natal care is rarely attended by mothers despite the stress we put on its importance and motivation."

"Health education has to be strengthened as far as post-natal care is concerned because most mothers do not know or feel the importance of coming for post-natal care."

### ***Multiple factors undermine post-natal care utilization***

"Patients decide not to come with various reasons. Others say they don't have good transport to review and others state that its never explained at hospitals after delivery as to when they should review."

"Post-natal clinic is most poorly attended clinic because mothers do not see the need for it. Mothers only return back those who seek fitness (certificate) for daily (work); others come back 3 months after delivery where they had their (culturally defined) confinement period in rural areas."

### **Comments on MCH/FP and Nursing in Botswana**

Participants expressed a strong sense of pride in the progress Botswana had made in health service delivery (particularly MCH/FP), and in nursing in general. However, they also shared frustrations with inadequacies in nurse staffing, equipment, facilities, and continuing education. Many nurses felt pressure from municipalities to practice beyond their scope of practice to make up for inadequate numbers of physicians, pharmacists, and other health care professionals. There were strong calls for health education directed toward men in their communities and for greater attention to the healthcare needs of persons living in rural areas.

### ***Pride in nursing progress and commitment to improving services***

"Nursing in Botswana has much improved since most people know the health (issues) such as hospital deliveries,

weighing of children, coming to clinic for ante-natal care, post-natal care, and (attention) when sick and for immunizations. Most people are no longer depending on traditional health and spiritual healers. They even know when they should bring their children for immunization and other things like family planning for themselves and their teenage girls."

"I really appreciate the MCH/FP in Botswana. It is so advanced. And workers try their best to improve it day by day especially child welfare including vaccination."

### ***Frustrations with inadequacies in staffing, continuing education and infrastructure***

"Nursing in Botswana is a bit of a problem due to shortage of health staff especially doctors, laboratory technicians, pharmacy technicians is so much that nurses are forced to perform these jobs assigned to the above (roles)."

"When it comes to nursing, it seems enrolled nurses are not being considered regarding courses like ophthalmic, nutrition, etc. and even workshops."

"The problem (in delivery of services) is shortage of trained nurses, equipment, inadequate space and recognition from all those people whose duties nurses perform."

### ***MCH/FP programs targeting men are needed***

"MCH/FP in Botswana has left men behind. It is very difficult to control population growth because they are the head of families and if they don't know anything about FP services, they will practice none. They don't support their wives in these tasks."

### ***Rural areas are relatively underserved by health services***

"MCH/FP is good in urban areas but fair in rural areas because most of the people in rural areas are far from health facilities where they can be helped and taught."

This discrepancy in access to services has been a continuing challenge. Letamo and Rakgoasi (2003), reporting 1996 Botswana Family Health Survey data concluded that rural women were less likely to use maternal health services and more likely to be delivered by an unqualified practitioner.

## **DISCUSSION**

Nurses in Botswana in 1989 regarded nursing in general and MCH/FP primary care practices in particular, with pride

pride, commitment and optimism. This positive assessment concurred with the observations of Anderson and Staugard (1988) who reported a dramatic expansion and improvement of mother and child healthcare services in Botswana. Further, it validated the quantitative evaluation of Linn and Fako (1990) that the new community based MCH/FP nursing practices introduced by the Meharry-Botswana nurses training program in the 1970s were widely diffused and adopted over time.

As participants in an integrated geographically dispersed healthcare system, the nurses were developing a holistic perspective that gave them a more comprehensive understanding of service delivery and how it was conditioned by the environment. They comprehended the strengths and deficiencies in primary and nursing care and were capable of making useful health policy recommendations.

## Conclusion

This qualitative analysis provides substantial additional evidence of the professionalism, confidence and high morale of the nurses who staffed Botswana's Healthcare system immediately prior to the rapid nationwide spread of HIV/AIDS. They were able to weather the worst of the pandemic during the 1990s and they had the clinical capacity to successfully partner with donor programs and "turn the tide" against the advancing illness and bring down the HIV/AIDS infection rate in the new millennium (UNAIDS GAP Report, 2014). Effective donor-based international health programs require adequate resources and established, functional, integrated health care systems with well trained and highly motivated professional staff.

## Conflict of interests

The authors have not declared any conflict of interests.

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