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Sources of motivation and frustration among healthcare workers administering antiretroviral treatment for HIV in rural Zimbabwe

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Abstract

The roll-out of accessible and affordable antiretroviral (ARV) drugs for people living with HIV in low-income countries is drastically changing the nature of HIV-related healthcare. The Zimbabwean Ministry of Health has renewed efforts to make antiretroviral treatment (ART) for HIV free and publically available across the country. This paper describes the findings from a multi-method qualitative study including interviews and a focus group with healthcare workers (mostly nurses), totalling 25 participants, and field notes from over 100 hours of ethnographic observation in three rural Zimbabwean health centres. These health centres began providing free ARV drugs to HIV-positive people over one year prior to the research period. We examined sources of motivation and frustration among nurses administering ART in these resource-poor health centres. The findings suggest that healthcare workers administering ART in challenging circumstances are adept at drawing strength from the dramatic physical and emotional recoveries made possible by ART and from their personal memories of the suffering caused by HIV/AIDS among close friends or family. However, healthcare staff grappled with extreme resource shortages, which led to exhaustion and frustration. Surprisingly, only one year into ART provision, healthcare workers did not reference the professional challenges of their HIV work before ART became available, suggesting that medical breakthroughs such as ART rapidly come to be seen as a standard element of nursing. Our findings provide a basis for optimism that medical breakthroughs such as ART can reinvigorate healthcare workers in the short term. However, we caution that the daily challenges of nursing in poor environments, especially administering an ongoing and resource-intensive regime such as ART, must be addressed to enable nurses to continue delivering high-quality ART in sub-Saharan Africa.

Keywords

antiretroviral treatment; human resources for health; HIV nursing; healthcare worker motivation; Zimbabwe

Introduction

The advent of antiretroviral treatment (ART) in poor countries promises to dramatically change the nature of HIV care, opening up new possibilities and narratives for healthcare workers. In the light of changes brought about by ART, this paper examines the sources of

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hope and frustration among healthcare workers who care for people with HIV in poor rural Zimbabwean health centres.

AIDS is the single biggest killer in sub-Saharan Africa (WHO, 2008a). HIV infection rates are highest among economically productive adults of childbearing age, taking a tremendous toll on families, communities and regional economies. In 2008 AIDS accounted for 1.4 million deaths – 14.7% of total deaths – in the region (UNAIDS/WHO, 2009).

Healthcare worker motivation in resource-poor settings

Healthcare worker resource shortages have been identified as the greatest potential limitation to developing accessible HIV treatment in sub-Saharan Africa (Chen et al., 2004; WHO, 2008b). Many papers have examined how to retain healthcare workers in resource-poor environments and reverse the trend of out-migration to better paying jobs in middle- or high-income countries (e.g., Mangham & Hanson, 2008; Willis-Shattuck et al., 2008). A systematic review of the literature on healthcare worker motivation in poor countries (Mathauer & Imhoff, 2006) identified seven employment preference themes: financial rewards, career development, continuing education, hospital infrastructure, resource availability, hospital management and recognition/appreciation. Nurses were usually willing to forego pay increases for other improvements in their employment conditions (Mangham & Hanson, 2008), a finding that encourages further research into nonmonetary sources of inspiration and motivation for healthcare professionals in financially strapped healthcare systems.

Antiretroviral treatment (ART) as a motivating force for HIV healthcare workers

These studies provide valuable information for the design of effective healthcare worker retention plans, suggesting that financial and resource-oriented limitations are not insurmountable. However, one area that is not widely explored is the importance of medical regime changes and treatment breakthroughs in motivating nurses and other health professionals. This paper seeks to contribute to this area by examining nurse's motivation and frustration in the context of the roll-out of ART in Zimbabwe.

The positive changes brought about by life-prolonging HIV treatments has been explored in high-income settings such as the USA, Canada and UK (Harris & Larsen, 2008). For example, in New Jersey, USA where "care has shifted from preparing patients to die to preparing patients to live", many healthcare providers reported a sense of hope about their patients' futures (Westburg & Guindon, 2004, p. 1).

Few studies have examined the changes ART has brought about to the healthcare profession in low-resource settings. A notable exception is Stein, Lewin, and Fairall's (2007) article "Hope is the pillar of the universe", which reported the renewed sense of hope and motivation engendered by ART roll-out in Free State, South Africa. Nurses in the study reported a strong commitment to providing this lifesaving treatment, despite the demands it made on their time and energy. The nurses drew significant motivation to deliver high-quality ART despite resource limitations from their difficult professional experiences of HIV nursing before ART. Our article seeks to expand upon these findings. While the nurses in the Stein, Lewin and Fairall study were interviewed at the beginning of ART roll-out, we interviewed healthcare workers who had been administering ART for over a year.

HIV and antiretroviral treatment (ART) in Zimbabwe

Zimbabwe is one of the first African countries to show a declining HIV rate with the adult prevalence rate falling from 24.6% in 2003 to 14.3% at most recent measure (UNAIDS, 2009). While there have been antiretroviral (ARV) drugs in Zimbabwe since the early

2000s, they were in extreme short supply and prohibitively expensive for most people. In the late 2000s the government and partner aid organisations succeeded in a massive scale-up of ART. By December 2009, 218,589 people, about half of those in need, were on free ART through the public health sector (UNAIDS, 2009).

Methods

We draw on qualitative data gathered by four researchers over six weeks in late 2009 from three healthcare sites in rural Zimbabwe that had been providing free ART for over a year. Site details have been anonymised. The research arose from a collaboration between two UK universities and a Zimbabwean public health research institute. Ethical approval was granted by the Medical Research Council of Zimbabwe (Ref: A/681) and the Imperial College Research Ethics Committee (Ref: ICREC_9_3_13).

Context

All three sites studied had infrequent electricity. One site, a rural clinic, used water from a nearby hand pump, while the other two, both large rural hospitals, had running water, albeit irregularly. The hospitals were each staffed with a doctor or clinical officer,[1] and around 40 nurses and 40 additional staff (nurse aids, counsellors, administrators, pharmacists and cleaners). At both sites the doctor/clinical officer was frequently away visiting smaller clinics and attending meetings and workshops in the cities. Nearly all HIV patient care was thus provided by nurses and counsellors. The clinic was visited monthly by a doctor and was otherwise staffed by three nurses and five additional staff.

Research design

Data were gathered through 18 in-depth interviews with health professionals (12 nurses, three HIV counsellors, one nurse-pharmacist, one pharmacist, one nurse assistant and one administration clerk), one focus group (three nurses, one nurse-pharmacist and three counsellors) and over 100 hours of ethnographic observation at the healthcare centres. Permission to conduct research was received from senior administrators at each site. Staff members were then approached individually and invited to participate; all agreed. The interviews and focus group used semistructured guides to explore people's views of how HIV and ART had impacted on their work, sources of support and frustration and the challenges of providing ART.

Data were collected by three Shona-speaking fieldworkers and a fourth researcher working with an interpreter. Audio files were transcribed and translated into English from Shona. To thank informants, focus group participants were given soap, and interviewees a t-shirt promoting HIV testing.

Thematic analysis and coding frame

Data were analysed using Attride-Sterling's (2001) thematic network technique. Text segments pertaining to healthcare worker motivation and frustration were coded for their central idea, such as patient illness, patient improvement, shortages of drugs and patient enthusiasm. These codes were clustered into more inclusive themes. These themes provide the headings for the sub-sections in section "Findings".

[1]A clinical officer is trained for three years and is licensed to prescribe medicine and initiate ART in Zimbabwe.

Findings

Healthcare workers were overwhelmingly positive about their capacity to provide high-quality ART. They told compelling stories of dramatic patient recoveries and shared memories of friends and family members suffering from HIV/AIDS. However, staff frequently expressed frustration with the ongoing difficulties of providing HIV care in a remote and poor area. They did not discuss the hardships of HIV work before ART, instead focusing on the current challenges that they faced.

Dramatic physical patient recoveries as source of satisfaction

Almost every staff member cited the inspiring nature of dramatic patient recoveries. They described the remarkable improvements brought about by ARVs, which reverse weight loss and drastically reduce infections. These stories had a similar format: a patient arrived at the clinic looking extremely thin and unhealthy, often too weak to walk. Through ART they regained complete physical health:

> Initially, patients are so sick with HIV. However, with ARVs we can control it; the [viral] levels remain low. Even for some patients who had stopped working due to HIV, they are now back on their former jobs, caring for their families. They come to get medical reports that they are fit and can go back to work – it really motivates you. (Nurse)

> A lot of patients come here in wheelbarrows. They would have become so thin. But when they start receiving treatments they recover to such an extent that we can't recognise some of them when they regain weight. I remember one guy who had to explain he first came here in a wheelbarrow but he was now walking and looking very fit. These are some of the satisfying things when working with HIV sufferers. (Nurse)

Playing a role in returning patients to health has a strong positive impact on health professionals. However, such recovery narratives may become less common as ART is increasingly well-established. WHO (2006, p. 14) guidelines state: "The optimum time to commence ART is before patients become unwell or present with their first opportunistic infection". Recovery stories thus draw from the time when ART had just become available or from more recent cases of problematic late initiation. As ART enables patients to remain in good health without first exhibiting dramatic symptoms of AIDS, these recuperation narratives will become distant memories. The future impact of this change on nurse motivation will need to be researched.

"The person now believes that there is still life after HIV": patient emotional improvement as source of motivation

Similar to physical recoveries were stories of improvements in patients' emotional states through counselling and treatment. These improvements motivated staff to provide a hopeful and inspiring environment. An HIV counsellor explained that "it is so good when you help someone and see them picking up the pieces and moving on with life again". A nurse discussed how patient acceptance and happiness affected him:

> Suddenly the patient starts to improve. He becomes happy just like anyone else. He comes to accept what he now is. You see that his life is back again, he is no longer viewing himself in a negative way. That's what makes me happy. He is like anyone else, he has accepted the situation … and the person now believes that there is still life after HIV. (Nurse)

When patients accept their status and embrace the idea of "life after HIV", enthusiasm for and dedication to treatment generally follows. Another nurse explains that patients who

accept their status "… come on the [ART review] date without fail, you do not have to look for them, they commit to it within their hearts that they are supposed to come back and they come". Patient commitment to ART, which was closely linked to acceptance of HIV status, was cited as a further source of motivation.

Personal experiences with HIV: strong motivating factor

Every healthcare worker interviewed had an experience with HIV/AIDS in his or her personal life. Primarily, healthcare workers recounted stories of close family members dying or nearly dying of AIDS although in one case a counsellor discussed his own journey of coming to terms with his HIV-positive status. Alongside the sorrow and loss, many staff reported how these experiences influenced their professional lives in a positive way. In some cases, it was the experience of HIV/AIDS among their family that inspired them to take up HIV work. In all cases, these experiences enabled healthcare workers to treat HIV-positive patients with greater understanding and commitment. Personal experiences inspired some nurses to be more compassionate on a general level:

> [The death of my brother] has actually been a source of inspiration for me…I felt really sorry for him and it became the basis for me to try and offer all that I could to these HIV sufferers. No wonder I like working with HIV positive people…my brother's illness gave that inspiration, and I have developed this love for HIV sufferers. These HIV sufferers need love and they need to be accepted as they are. I give them a handshake and they feel comfortable and loved. (Nurse)

Personal experiences with a friend or relative suffering from AIDS helped staff approach HIV in a non-stigmatising, loving way. Some staff drew specific lessons from their experiences. For example, in the following quotation a nurse discusses how the death of her brother and his wife influenced her to make a strong professional effort to encourage counselling:

> The most painful part is that they wasted time and resources consulting traditional healers…It was this that taught me the importance of counselling. I now really feel so attached to these ART patients and I clearly understand how it can be so hard for them to comply. So I always try to make sure that I give correct and enough information to them, and try to make follow up counselling until I am convinced the person has accepted their HIV results. (Nurse)

Healthcare workers made clear linkages between their personal experiences with HIV and their professional efforts to deliver high-quality HIV care. Although HIV rates are dropping in Zimbabwe and more HIV-positive people are living in good health, the type of personal experiences with HIV reported by these healthcare workers will likely remain a strong motivating force in the healthcare sector for many years.

Wide range of shortages: major source of frustration

Our study sites suffered from many severe shortages: there were not enough doctors, medicines frequently ran out, key machines such as CD4 counters and oxygen tanks were in short supply or broke down for days at a time, salaries were often late or too low and common supplies (blankets and disinfectant) were often out of stock. Healthcare workers frequently referenced these shortages as extremely frustrating and disheartening.

While ARVs were generally stocked, they occasionally ran out or had to be carefully rationed, as discussed below:

> It's painful when we do not have ARVs for the patients. You will be expecting the patient the following day and you do not have the tablets. Yet you were the one who told that patient that he must take these tablets without fail. Then he comes

> here there are no tablets. What do you expect that person to do? How would you feel if it was you? (Nurse-pharmacist)

Many staff members were extremely distressed by being blamed for problems they could not control:

> We may not have the medication, so when they come there expecting to get the drug they end up thinking that you do not want to give it to them. If you ask them to go and look for it from other pharmacies, they ask you where you expect them to get the money to purchase the drug. (Nurse)

> People might hate the pharmacy tech, say if they are told the drugs they have been prescribed are out of stock. Maybe they think I am hiding these drugs somewhere. (Pharmacy technician)

In other cases, staff distress stemmed not from patients' misdirected anger but from a sense that they were letting patients down, for example, by turning them away because the CD4 blood cell count machine was out of order. Several staff members described feelings of helplessness and inadequacy surrounding death or suffering that could have been prevented by simple supplies, such as a blood transfusion system. In the following, a nurse discusses the emotional toil of these shortages:

> I always feel inadequate when a patient who is beyond what we can handle here comes seeking assistance. In such cases I feel like 'if only we had a doctor here", or "if only we had oxygen here we could have helped" …So when we face situations that call for a doctor and other equipment that we do not have one feels so bad and so helpless. (Nurse)

Some healthcare workers expressed pride in their centre's services, suggesting patients preferred their hospital and received superior care. While this pride was a source of motivation to continue delivering good quality care, it also led to healthcare worker strain when resource shortages compromised the capacity of the staff to provide good care:

> There are cases when patients have to be seen by the doctor because their needs are beyond what we can do as nurses. However, the doctor is always not there, and we really feel helpless in front of patients. We really feel bad when we see a patient deteriorating … (Nurse)

> There is the issue of the CD4 machine. It's down. I will be turning back quite a good number [of patients] so that's one other factor that discourages patients …The truck that brings the ARVs from Harare might delay. Like today we were supposed to give patients two months supply of ARVs, but we are only giving them two weeks supply so that everybody may get something. So the patients are no longer confident that we will get constant supplies and we are also not sure. (Nurse)

Losing the confidence of patients in the hospital's capacity to provide good care was a major concern for staff.

Memories of the professional challenges before ART apparently not a source of motivation

The healthcare workers did not refer to the challenges of nursing before ART when discussing their motivation. In fact, they never spoke of the hardships of providing healthcare for HIV patients before ART was available, despite the fact that almost all of them had worked with HIV patients for years before ART was available. This finding was surprising in light of the sources of motivation cited by South African nurses in Stein et al.'s (2007) paper. Those nurses discussed ART as something new and hopeful that could drastically change the horrible reality of HIV nursing before ART was available. Their willingness to stretch already-thin resources and to work extremely hard in order to

administer ART was directly related to their recent professional experiences of the horrors of HIV nursing before ART. The nurses in Stein, Lewin and Fairall's study spoke of the previous trauma of having to cope with large numbers of deaths among their patients before ART.

A key difference between the Stein, Lewin and Fairall study and ours is the amount of time elapsed between the roll-out of ART and the research. While the participants in our study had been administering free ART for over a year, the nurses in Stein, Lewin and Fairall's study were interviewed on the cusp of ART roll-out. It appears that in as short a period as one year, ART can become a fairly normal component of nursing. The absence of comparisons to the time before ART suggests to us that the healthcare workers in our study had rapidly moved from seeing ART as an exciting drug capable of transforming their professional lives to focusing on the challenges associated with providing ART care, such as late supplies of drugs or CD4 count machine breakdowns.

Conclusion

This paper has sought to contribute to the research literature on sources of healthcare worker motivation and the changing nature of HIV nursing brought about by ART. It specifically sought to build on the findings of Stein et al. (2007) who examined healthcare providers' experiences of delivering ART in primary healthcare clinics at the initiation phase.

We found that dramatic physical recoveries of AIDS patients because of ART were key source of inspiration and motivation. The types of deterioration and recovery featured in these motivation narratives are, thankfully, likely to become less common as ART provision enables HIV-positive people to remain healthy without first exhibiting signs of AIDS. Being a part of or observing a patient's emotional improvement, from feeling disheartened to seeing the possibilities of "life after HIV", brought healthcare workers a sense of joy and purpose. Further, personal memories of close friends or family members suffering from AIDS were another key source of nurse's motivation, especially surrounding the motivation to provide compassionate and non-stigmatising care.

The healthcare workers in this study did not link their motivation to provide high-quality ART to their memories of working with HIV patients before ART was available. This finding was surprising because the healthcare workers in Stein et al.'s (2007) study cited the difficulties of HIV nursing before ART as a key source of motivation to provide high-quality ART. This difference in sources of motivation is likely linked to the fact that the healthcare workers in the Stein, Lewin and Fairall study were interviewed at the very beginning of ART roll-out, while our study examined ART over a year after the drug regime had been introduced.

ART roll-out across sub-Saharan Africa presents unique opportunities and challenges for the healthcare profession, enabling HIV care to evolve from a primarily opportunistic infection and palliative approach to a long-term chronic illness management approach. However, ART, like all other medical interventions, is subject to the daily frustrations of providing healthcare in resource-poor settings. The findings in this study provide a basis for optimism about the future of ART nursing care and HIV management in sub-Saharan Africa since healthcare workers were found to draw strong motivation to provide good care from their personal experiences with AIDS and the dramatic recoveries made possible by ART. However, our findings also highlight areas of frustration surrounding severe resource shortages that must be addressed in order to enable nurses to continue delivering top-level HIV/ART care to all those in need in sub-Saharan Africa.

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