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‘Even when you are afraid, you stay’: Provision of maternity care during the Ebola virus epidemic: A qualitative study

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ABSTRACT

Objective: to explore nurse-midwives understanding of their role in and ability to continue to provide routine and emergency maternity services during the time of the Ebola virus disease epidemic in Sierra Leone.
Design: a hermeneutic phenomenological approach was used to discover the lived experiences of nurse-midwives through 66 face to face interviews. Following verbatim transcription, an iterative approach to data analysis was adopted using framework analysis to discover the essence of the lived experience.
Setting: health facilities designated to provide maternity care across all 14 districts of Sierra Leone.
Participants: nurses, midwives, medical staff and managers providing maternal and newborn care during the Ebola epidemic in facilities designated to provide basic or emergency obstetric care.
Findings: the healthcare system in Sierra Leone was ill prepared to cope with the epidemic. Fear of Ebola and mistrust kept women from accessing care at a health facility. Healthcare providers continued to provide maternity care because of professional duty, responsibility to the community and religious beliefs.
Key conclusions: nurse-midwives faced increased risks of catching Ebola compared to other health workers but continued to provide essential maternity care.
Implications for practice: future preparedness plans must take into account the impact that epidemics have on the ability of the health system to continue to provide vital routine and emergency maternal and newborn health care. Healthcare providers need to have a stronger voice in health system rebuilding and planning and management to ensure that health service can continue to provide vital maternal and newborn care during epidemics.

Introduction

Ebola is a highly contagious, zoonotic, filovirus thought to be transmitted to humans through hunting and eating of bush meat from an unknown animal reservoir (Feldmann and Geisbert, 2011). Ebola is passed from human to human through transmission of infected body fluids and mucosal contact. Incubation for the disease is 21 days, but nonspecific early symptoms similar to those for malaria or typhoid for example, mean that the disease may be misdiagnosed. Treatment of the disease is supportive with no cure or vaccinations currently available. Mortality in Sierra Leone during the 2014/2015 epidemic was between 50–70% (World Health Organisation, 2015).

Prior to the Ebola outbreak Sierra Leone already had a weak health system and one of the highest maternal mortality ratios in the world at

Abbreviations: BEmONC, Basic Emergency Obstetric and Newborn Care; CEmONC, Comprehensive Obstetric and Newborn Care; EVD, Ebola Virus Disease; IPC, Infection Prevention and Control; MOU, Memorandum of Understanding; NERC, National Ebola Response Centre; NGO, International Non-Governmental Organisations; VSO, Voluntary Services Overseas

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1100/100,000 (World Health Organization, 2014). Health care, including emergency obstetric care, is delivered through a system of both private and public healthcare facilities. A shortage of skilled birth attendants means that many women seek care from traditional birth attendants with 50% of deliveries taking place outside of any type of health facility (UNICEF, 2015).

The first confirmed case of Ebola Virus Disease (EVD) occurred in Sierra Leone in May 2014 in the Kailahun district of the Eastern province which borders with Guinea (World Health Organization, 2015). On the 7th November 2015, WHO declared Sierra Leone free from Ebola following 42 days without any new cases (National Ebola Response Centre (NERC), 2015). At the end of the epidemic, there were 8704 confirmed EVD cases and 3589 deaths; of these 307 healthcare workers were infected and 221 died (World Health Organization, 2015). In February 2016, two new cases of Ebola were reported in one district and the country was again declared Ebola free by WHO on 17th March 2016 (World Health Organization, 2016).

It is now widely accepted that there was a slow response from the international community as well as national governments to the EVD epidemic and missed opportunities to contain the outbreak in the early stages (Moon et al., 2015; Walker and Whitty, 2015). The reasons for this slow response are multifactorial with socio-political, geographical and cultural issues all playing a part. Understanding the nature of the epidemic, how the virus is transmitted and what can be done in future to ensure better emergency preparedness for EVD is important. There are also lessons to be learned from healthcare workers, in particular nurse-midwives, providing routine and emergency maternity services, on their perception and experience of the epidemic including preparedness and response. Nurse-midwives were particularly vulnerable to EVD because of the nature of their work and the lack of personal protective equipment and infection prevention and control procedures in the early stages of the epidemic (Kilmarx et al., 2014).

The community response to EVD was as important as that of the Government and international agencies in helping to control and eventually end the epidemic. Significant reduction in the number of women attending for maternity care during the EVD outbreak in Sierra Leone was documented in studies by Elston et al. (2016) and Jones et al. (2016). A lack of understanding as to how the disease spread and unsafe burial practices increased individual exposure. At the start of the epidemic UNFPA predicted that 800,000 women were due to give birth across Guinea, Sierra Leone and Liberia (the three countries with the highest number of Ebola cases) (UNFPA, 2014). Of these 800,000 more than 120,000 would be at risk from obstetric complications, demonstrating the importance of continued availability of routine and emergency maternal and newborn health services. Previous papers have documented the impact of Ebola on uptake and quality of maternity care in Liberia and Guinea and on the numbers of maternal deaths and still births (Barden-O'Fallon et al., 2015; Dynes et al., 2015; Iyengar et al., 2015). Prior to the Ebola epidemic Sierra Leone had a maternal mortality ratio of 1100 and could ill afford to lose the gains it had made in maternal and newborn health care (World Health Organization, 2014).

The aim of this study was to explore the factors which influenced on the ability of nurse-midwives to continue to provide routine and emergency maternity services during the time of the EVD epidemic. Previous quantitative studies have looked at the availability and uptake of maternity services during the epidemic (Jones et al., 2016). This study aimed to explore the perceptions of healthcare workers on the factors which allowed or hindered them to continue to provide maternity care and their reasons for continuing to provide care despite risks to their own health.

Methods

The research sought to discern nurse-midwives' understanding of their ability to continue to provide patient care during a humanitarian crisis. Therefore, a Hermeneutic descriptive phenomenological approach was used to discover the lived experiences of healthcare workers (Willis et al., 2016). This approach allows the researcher to explore the lived experiences of individuals by allowing them to make sense of their own world in response to a particular phenomenon, in this case the humanitarian crisis caused by the Ebola epidemic (Blaaka and Eri 2008; Blaaka and Eri, 2008). It is particularly relevant when looking at the experiences of healthcare providers in a clinical setting.

A total of 66 face-to-face interviews were conducted. Purposive sampling was used to select informants from district health management teams and healthcare facilities involved in provision of maternity care (nurse-midwives) both prior to and during the epidemic across all 14 districts in Sierra Leone. Those providing direct maternity care (nurses, midwives, community health officers, matrons, traditional birth attendants, medical staff) and those in managerial positions (district health sister, district medical officer, medical superintendent) were interviewed.

All interviews took place within each of the 14 districts of Sierra Leone during July 2015. Participants were contacted through the appropriate District Health Management Team, District Health Sister and District Medical Officer and were provided with both written and verbal explanations of the study. Healthcare workers who consented were interviewed in July 2015 by trained researchers based in Sierra Leone using a topic guide, in the language of their choice and in a private room within the health facility.

Interviews were tape recorded and translated into English when necessary and transcribed verbatim. An iterative approach to data analysis was conducted using Framework analysis (Blaaka and Eri, 2008). Researchers read all transcripts to become immersed in the data and to identify commonalities, shared experiences and differences in the data to find the essence of the experiences of the nurse-midwives. Emerging themes were assigned a code and then grouped together into related themes. Initial open coding of a third of all transcripts was completed by four members of the research team (Gale et al., 2013). Following comparison of these initial codes, agreement was reached on the codes to apply to all subsequent transcripts. Microsoft Excel was used to group codes together under thematic headings which formed a working analytical framework.

Ethical considerations

Ethical approval for the study was obtained from the Liverpool School of Tropical Medicine and the Sierra Leone Ethics and Scientific Review Committee based at the College of Medicine and Allied Health Services in Freetown. Participants were provided with both verbal and written explanations of the study and signed a consent from if they agreed to participate. Participants may have been concerned that if they expressed negative opinions this may be detrimental to their positions and careers. Confidentiality was maintained at all stages of the research process and data stored securely in password protected computers or a locked cupboard. The researchers also recognised that participants may become distressed if recalling stressful situations. If this occurred interviews were stopped and only continued if the participant agreed. Researchers were also able to provide details of support services available within Sierra Leone for participants if they wished to use these.

Findings

A total of 66 key informant interviews were conducted across the 14 districts of Sierra Leone with a median of seven interviews per district (range 2–12) (Table 1). Midwives and various cadres of nursing make up the majority of those providing maternity care in Sierra Leone and this was reflected in the interviews, with the majority of MNH care being provided by non-midwives. A total of 50 out of 66 (76%) participants were classified as either midwives or nurses and the