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ORIGINAL RESEARCH

Knowledge and Practice of Birth Preparedness and Complication Readiness among Healthcare Providers in Kaduna North Local Government Area of Kaduna State, Nigeria: A Qualitative Study

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Abstract

Background: Birth preparedness and complication readiness (BP&CR) are strategies to reduce the three levels of delays contributing to high maternal mortality and morbidity in developing countries. Knowledge of BP and CR among healthcare providers, especially in Primary Health Care (PHC), is poor, and counselling on BP and CR during antenatal care visits is not routinely done in most healthcare facilities in Northern Nigeria. It is, therefore, imperative to assess the current in-depth knowledge and practice gap regarding BP and CR among health workers in PHCs.

Aim: To assess Healthcare providers` knowledge and practice of focused antenatal care in PHC centres in Kaduna North Local Government (KNLG) Area of Kaduna State, Nigeria.

Methods: A qualitative study was conducted using in-depth interviews. The participants were the officers-in-charge (the heads) of health facilities purposively selected from the four selected PHCs in the state.

The data were collected with a tape recorder and note-taking from May to June 2017. The data resulting from the IDI were transcribed verbatim and subjected to using content analysis.

Results: Two themes [poor knowledge of FANC and poor practice of BP and CR] emerged from the interviews.

Conclusions: This study revealed poor knowledge, awareness and practice of BP and CR among healthcare providers. Therefore, healthcare providers should be trained and retrained on FANC and the concept of BP and CR for sustained improvement in maternal survival.

Keywords: Antenatal care, Birth preparedness, Complication Readiness, Healthcare providers, Maternal and Child Health.

Introduction

Qualitative antenatal services are care given to pregnant women by a skilled or trained healthcare provider (HCP) to promote the health and survival of mother and child. [1] The Focused Antenatal Care (FANC) services refer to at least four antenatal clinic visits, each with specific items of client assessment, education and care to ensure early detection and prompt management of complications. [2]

The World Health Organization's 2016 recommendations on antenatal care (ANC) for a positive pregnancy experience prioritise person-centred health care, the well-being of women and families, and positive perinatal and maternal outcomes. [3] One of the WHO recommendations on antenatal care for a

positive pregnancy experience is: policymakers should consider professional-support interventions that recruit and retain qualified health workers in remote and rural settings. Midwife-led continuity-of-care ANC models are recommended in settings with well-functioning midwifery programmes. [3]

Studies have shown that HCPs need better knowledge and practice of FANC and the concept of birth preparedness (BP) and complication readiness (CR). A cross-sectional descriptive study on the knowledge and attitude of women towards FANC in southeast Nigeria reported that 66% accepted that FANC is not enforced by their care facility due to policy concerning the practice of FANC. [4] Also, the findings from the study by Karin on FANC in practice in Kilomero valley, Tanzania showed that 62% of HCPs had poor knowledge of the timing of visits in FANC, guidelines were not frequently adhered to, and HCPs did not carry out diagnostic examinations. Consultation times were short (12 minutes for the first visit), and health problems may thus be missed. [5]

A strong and responsive primary health care (PHC) system is essential for achieving universal health coverage (UHC), ensuring everyone can access good quality health services without financial hardship. While PHC services are comparatively low-cost, for many individuals, PHC services remain unavailable, inaccessible, or unaffordable in the absence of sufficient resources. [6] The performance of the country's PHC system remains weak due to fragmented supply chains, poor financial access to services, low health worker performance and absenteeism, and lack of available inputs (such as drugs, equipment, vaccines) at health facilities, among other challenges. [7]

Maternal mortality rate in Nigeria stands at 512 deaths per 100,000 live births, with only 43.3% of births attended by a skilled health worker. [8] In Kaduna State, only 26.5% of births are attended by skilled health workers. [8] The national 2018 Minimum Service Package (MSP) focuses on maternal, neonatal, and child health (MNCH) services. Maternal and newborn care includes antenatal care, skilled delivery care, postnatal care, neonatal care, family planning and reproductive health. [9]

Government health spending for PHC is especially low, with only 39.6% of government health funding allocated to PHC services, comprising just 9% of total PHC spending. [10] The data from 2016 indicates that, on the average, HCPs in PHC facilities received salaries with two-to-three-month delays, and only a third of facilities received cash grants to meet operational costs. [11] Other financial supports for PHC facilities come from user fees, drug revolving funds, and donors, while the federal government provides in-kind support to PHC facilities for centrally procured commodities. [11] Therefore, it is imperative to assess whether the HCPs in the various PHCs in Kaduna State know and practice BP and CR, which address most causes of preventable maternal mortality and morbidity. Moreover, there is a need for more local studies on the assessment of knowledge and practice of BP and CR among HCPs using qualitative design. This study aimed to assess the awareness and practice of BP AND CP among primary health providers in Kaduna North Local Government (KNLG) Area of Kaduna State, Nigeria. The study also aimed to determine the level of knowledge of BP and CR concepts among ANC providers and determine whether counselling ANC clients on BP and CR is a routine practice.

Methods

Study area

The study was conducted in four selected PHCs in KNLG Areas of Kaduna State**.** It is a metropolitan local government area with the headquarters at Magajin Gari in Doka District. [12] The LGA has an estimated population of three hundred and sixty-four thousand, five hundred and seventy-five (364,575) by the 2006

census figures but projected to be 492,100 in 2016 (National Population Census, 2006). The population is made up of different ethnic groups, among which are Hausa, Gbagyi, Bajju, Atyab, Ninzom, Koro, Yoruba, Igbo, Nupe, Igala, foreign expatriates and all other mixed tribes due to its metropolitan nature. The predominant ethnic groups are the Hausas, who dominate the Northern part of the state, including KNLG area, and the southern Kaduna, who dominate the southern region. The two major religions are Islam and Christianity. Pregnant women constituted 24,036 (5%) of the population. [12]

The LGA has 14 health facilities, 11 Primary Health Centers (PHCs) and three health clinics. Four out of the 11 PHCs, such as Badarawa, Zakari Isah, Ungwan shanu, and Ungwan Sarki PHCs were selected based on the workload (i.e. based on the antenatal clinic attendance and the delivery rates). This was because the more the number of clients, the more the likelihood of adopting the Focused Antenatal Care practices. It is assumed that the health workers in these facilities could be considered for sponsorship in training on FANC by the authority concerned as their financial returns will be higher.

Study design

The qualitative study design was adopted for the study. Purposive sampling was done across the four selected PHCs yielding a population of four participants. The participants were the officers-in-charge (heads) of the chosen facilities who were active in delivering ANC services and were willing to participate. Officers-in-charge who were on leave or absent and those who were sick were excluded. The officer-in-charge of each PHC was the most senior, and the one with the highest qualification in the PHC, usually a Nurse-midwife.

The instrument for data collection was an in-depth interview question guide that sought to determine knowledge and practice. The researcher and research assistant, a female medical doctor, carried out the in-depth interview, recording and taking notes of all the discussions. The interview guides were translated into Hausa local language and translated back into English to retain the original meaning. This was because some officers-in-charge could not express themselves in English. Each IDI lasted between 25 and 30 minutes under the following questions guide:

(1) Do they receive training on FANC and BP, and CP?
    If yes, how many were trained?
(2) Whether it was in-service or pre-service training
(3) Do they routinely practice BP and CR counselling?
    If yes, how often? (all the time, occasionally or on request)
(4) What were their experiences with BP and CR practice?

Ethical Consideration

Ethical approval was obtained from the Human Research and Ethical Committee of Barau Dikko Teaching Hospital, Kaduna (Reference number: 17-0023-1). Verbal informed consent was obtained from the healthcare providers available during the study.

Data analysis

The data from in-depth interviews were transcribed, coded, categorised and subjected to content analysis. In the first step of the study, the transcriber and the researcher played and listened to the audio recorder several times in full before transcription began. Notes were taken, and headings were created in the text, after which the notes and headings were transcribed onto a coding sheet. The next step involved grouping the data and reducing the number of categories by combining similar headings into broader categories. The emerging themes were identified in line with the study's objectives and the guiding questions.

Two themes emerged, and these were:

(1) Poor knowledge of the concept of FANC
(2) The poor practice of BP and CR

Results

Poor knowledge of the concept of FANC

Most of the officers-in-charge demonstrated inadequacy in the knowledge of the concept of FANC, including BP and CR though most of them claimed to have the knowledge. This is evidenced in the following excerpts:

"It is a care given to a pregnant woman from the time of pregnancy to the time she gives birth, and all the necessary attention should be given to ensure she has quality antenatal care".

"BP and CR are that you prepare a woman towards the time she will give birth by acquiring the items she needs for the baby, then we send them for scanning when we identify complications, and we refer".

One of the participants demonstrated some degree of knowledge in the concept of FANC, BP and CR.:

"FANC is that a woman should have four antenatal visits though now it is eight visits, and if there is any problem, it is identified early". (Participant from the PHC with the largest client base).

"BP and CR are the preparations that pregnant women are supposed to do before delivery. First of all, she should prepare for blood in case of excessive bleeding after delivery, as it is one of the causes of maternal mortality. So we advise them to prepare a blood donor in an emergency to save lives. Secondly, there is preparation for keeping money in case of emergency. We used to tell them that pregnancy is like nine months' contribution. A woman should be keeping whatever she has either through the use of local banks or associations. Third is the preparation for the car that will convey them to the hospital during labour, especially at night. The fourth one is the need to get at least two reliable women; one of them will escort her to the hospital, and the other one will take care of her home and children so that her mind will not be at home while in labour and her Blood Pressure will not rise. The fifth one is the items required for safe delivery. The woman will get items such as Pads, Dettol® and injections ready, because we don't have them. Also, there is a need to have somebody that will give permission because some women, if their husbands are not around, will not be able to come to the hospital, so there is a need to have someone that will give permission during labour even if their husbands are not around". (Participant from the PHC with the largest client base).

Though knowledge of the concept of BP and CR needs to be improved among the officers-in-charge, some officers-in-charge mentioned that they received training on FANC, BP and CR.

"I am the only one who received the training in the centre, as I usually go for update courses".
"Some of us got the training partly in a lifesaving skill workshop though not in detail".

However, another participant clearly indicated that she received no training in the concept of BP and CR;
"No, we were not trained". (Participant from the PHC with the least client base).
From these responses, it was deduced that only one among others was trained in the concept.

The poor practice of BP and CR

When the participants were asked if they practised BP and CR. The responses were as follows:
"Yes, we do".
"We try our best to do what we can".

However, each of them has a different method:
"We have antenatal clinic twice a week and a child welfare clinic also twice a week, so at the time we are giving them health talks, we include that even if a woman comes for immunisation, we include her because that child may not be the only child she will give birth to".

"There is timing concerning delivery items. We normally give them the list during the first visit so that they start preparing. At the time when they come for re-visits, that is when we start BP and CR counselling".

The common experience they shared was the lack of compliance by the husbands of the pregnant women:

"Most of the women don't comply because most of the time when they are given the list of items to buy, they don't; they always say that their husbands are not cooperative at all".

One of the participants revealed her experience was encouraging as she had a few challenges:

"The major challenge we encounter is the issue of blood donation, as there is no provision for blood donation in Barau Dikko Teaching Hospital. However, there is an encouragement in some of the examples of the practice; we have Emergency Transport Funds (ETF) drivers that are trained to convey referral cases to the appropriate hospitals. Furthermore, in most cases, once there is a case for referral, the relatives are always ready for the transportation".

Discussions

Poor knowledge of the concept of FANC

The finding from this study indicated that most of the heads of the selected PHCs had poor knowledge of FANC as well as BP and CR. Most of them received no training on the concept. This is similar to the findings in a qualitative study that sought to investigate HCP's knowledge and practice of focused antenatal care in Enugu, southeast Nigeria. The latter revealed poor knowledge of the concept, components, the timing of visits on FANC and non-compliance with the guidelines for the practice of FANC, because of health workers lack of knowledge on FANC. [13] The Enugu study also determined the knowledge and practice of FANC among health workers in the rural community, but it did not emphasise BP and CR. The Enugu study also used qualitative and quantitative study designs, unlike the present Kaduna study, which used only the qualitative method because it aimed to assess the knowledge and practice and that would be better assessed with this study design. The health workers' necessary background, such as their highest qualifications (Nurse-midwives), was already known. The population of the Enugu study consisted of 25 HCPs, and out of these, only two midwives were available throughout the six weeks study period. However, the population of the Kaduna study consisted of four Nurse-midwives, one from each of the four selected PHCs.

Karlsen *et al.* [14] reported a correlation between maternal mortality rate MMR, educational factors, and prenatal care coverage. Therefore, intensifying training on FANC and BP and CR among HCPs plays a very significant role in reducing MMR. In Kaduna PHCs, the training of health workers needs to be improved. As stated above, government health spending for PHCs is especially low, with only 39.6% of government health funding allocated to PHC services, comprising just 9% of total PHC spending. [10] Data from 2016 indicates that, on the average, providers in PHC facilities received salaries with two-to-three-month delays, and only a third of facilities received cash grants to meet operational costs. [11] Other financial support for PHC facilities comes from user fees, drug revolving funds, and donors. While the federal government provides in-kind support to PHC facilities for centrally procured commodities. [11] This is not different from what happens in various states, including Kaduna State. The health workers are always battling to survive, including self-sponsorship for health-related trainings, as the government-sponsored training is very inadequate.

In a qualitative study in Ghana, [15] pregnant women learn about danger signs from various providers and regular contact with formal providers typically coincides with increased knowledge of danger signs. Health professionals confirmed that as part of routine antenatal services, expectant mothers are given information on danger signs in pregnancy through verbal communication, pictures on the walls in the clinic, and pictures on the back of ANC cards. Pregnant women who attend ANC are expected to be competent in recognising

danger signs in pregnancy. [15] The study in Ghana demonstrated adequate knowledge and practice of BP and CR, [15] unlike the study in Kaduna. Though Nigeria and Ghana are developing countries, the latter is better regarding healthcare financing.

There is a need for training and retraining programs as cost-effective and valuable strategies to enhance the knowledge base of HCPs in relation to BP and CR. This will, in turn, positively impact the knowledge base of their clients to empower them to practice BP and CR. This could, in turn, positively influence maternal health outcomes by enhancing the utilisation of skilled care services among pregnant women. It is also important to note that if the knowledge of HCPs is poor, this could negatively impact the health-seeking behaviour and level of acceptance of health intervention by clients and potential clients.

Limitation

Only one HCP (officer-in-charge) was interviewed among the healthcare providers in each PHC as they were the only ones with the required qualification (Nurse-Midwife). There needs to be more current (less than five years) qualitative studies assessing BP and CR on healthcare providers.

Conclusions

To improve knowledge and practice of focused antenatal care as well as BP and CR, there should be intensive awareness and retraining of health workers and monitoring and supervision of health care providers on evidence-based FANC, including BP and CR. There is a need for advocacy to the local government authority in the area to address the gaps in training HCPs on maternal health in various PHCs. This is a crucial factor which must be well managed if we are to adequately appraise the reason for Nigeria's failure to meet up with the SDG target concerning maternal mortality.

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