Official Publication of the Faculty of Basic Medical Sciences University of Ibadan, Nigeria

Arch. Bas. App. Med. 6 (2018) 27 – 33
www.archivesbamui.com

ARCHIVES OF BASIC & APPLIED MEDICINE

Research Article

Need Assessment for Health Education Service Provision on Maternal Depression Among Primary Health Care Service Providers

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Received: June, 2017; Revised version Accepted: November, 2017

Abstract

Maternal depression is gradually becoming a prevailing condition among women of reproductive age in Nigeria but there are little efforts towards addressing this problem. Need assessment for health education service provision on maternal depression therefore becomes necessary. Hence, this study assessed the needs of Primary Health Care (PHC) workers regarding the provision of routine health talk on maternal depression. This study was descriptive in design and it adopted a mixed method. Four Key Informant Interviews (KII) and a survey which involved 100 Health Workers (HWs) were carried out. KII participants were purposively selected from the 4 LGAs where volunteers were found and the 100 HWs were conveniently selected from all the Comprehensive Clinics (CCs) in the 5 LGAs. A KII guide and structured questionnaire were used to collect data and data were analyzed thematically, with descriptive statistics and chi-square. The mean age of the key informant's interviewees was 54±6.1years and the mean age of the survey respondents was 42±5.2 years. The interviewees identified HWs' inability to communicate maternal depression to the service users in appropriate local terms and non-availability of Information, Education and Communication (IEC) materials as barriers to giving health talk on maternal depression. Survey respondents identified needs with a significant difference across cadres. Eighty-three (88.3%) identified training, education aid materials 61.7%; $p<0.05$, maternal depression health education guide 27.7%; $p<0.05$ and need for more staff 22.3%. Training, need for more staff and non-availability of maternal depression targeted educational materials were the primary identified needs.

Key Words: *Health Education, Maternal Depression, Primary health care workers*

INTRODUCTION

"A needs assessment is a systematic process for determining and addressing needs, or "gaps" between current conditions and desired conditions. The discrepancy between the current and desired condition must be examined to appropriately identify the need. The need can be a desire to improve current performance or to correct a deficiency" (Kizlik, 2017). "Needs assessments thereby link together past and future performance, guiding decisions throughout the improvement effort" (Watkins *et al*., 2012).

Need assessment is a common process in the field of mental health. In the low and middle income countries, information about the barriers to mental health service improvement were discovered through situational assessment (Serenato *et al*., 2007). Following this discovery, WHO developed a guideline on the management of common mental health problems and neurological disorders in non-mental health settings in 2010 in order to facilitate the scale up of mental health service delivery at the Primary Health Care (PHC) WHO, 2010). Henceforth, many researchers have used the guideline for training on maternal depression because it contains both the management of antenatal and postpartum depression. To the best of our knowledge, the guideline is still being used for interventional study not for service provision yet in Nigeria. In Georgia, need to train more community psychiatrists showed up during a need assessment (Reisinge *et al*., 2015). Need for after-conflict children and adolescent mental health policy was also revealed as result of need assessment in Liberia (Borba *et al*., 2015). However, an intervention study trained more than 100 lay counselors drawn from 12 Low and Middle Income Countries (LAMICs) with no statement on need assessment carried out for the training among stakeholders (Murray *et al*., 2011). Although the psychosocial service provided to clients by the trained counselors achieved an improvement in the mental health of clients. However, the researchers were left with gaps on need to know how to implement and disseminate intervention and what process training should follow in the Low and Middle Income countries (LMICs). (Murray *et al*., 2011). When need assessment is not conducted there is possibility of addressing the perceived needs instead of the actual expressed needs of the affected population and health system.

Though mental health is a component of service delivery of the Primary health care, it is still evolving in the LMICs. The 1978 Alma-Ata declaration of health for all did not exclude mental health but unfortunately, mental health problems which include depression still go undetected in the antenatal clinics and mothers seek help for physical complaints do describe depression (Adewuya, 2007). This could be attributed to lack of awareness among clients. The health education component of the PHCs in Nigeria is still not

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active about maternal depression which makes the management of the condition dormant. Despite the devastating effect of depression on mother and child and the increase in prevalence rate. The prevalence of maternal depression was found to be 10% antenatal rate in eastern part of Nigeria (Uwakwe and Okonkwo, 2003), 14.6% postnatal rate in the rural western part of Nigeria while 6.3% was found among women in the general population (Adewuya *et al*., 2005). 8.3% was found in a tertiary antenatal clinic in the western part of Nigeria (Adewuya, 2007), 56.0% antenatal rate of maternal depression was found in the Primary Health Care reported in an unpublished PhD study in Ibadan (Aransi, 2015). Generally, the prevalence rate of maternal depression was between 15.0% and 56.0% in the LMICs but the burden is hidden because the condition is not actively sought for, diagnosed, nor taught about in clinic health education.

In the past, some studies have focused on capacity building for PHC health workers on mental health service provision. Capacity building on provision of screening, interpersonal therapy and pharmacological treatment of maternal depression (Gureje at al., 2015). Integration of mental health service training was carried out by (Odejide *et al*., 2002). Training on postnatal depression among secondary health workers with the use of WHO guideline was carried out by (Adeyanju, 2015). These interventions show that mental health service is gradually scaling up in Nigeria but need assessment prior these interventions were not clearly stated. Except they were reported in separate articles. Hitherto, no study was neither found to have provided intervention related to health education service on maternal depression nor carried out a need assessment for it. Therefore, this study assessed the needs of PHC health workers in Ibadan to be able deliver health talk on maternal depression like any other maternity topics they routinely address.

MATERIALS AND METHODS

Study design: This study was descriptive in design and it adopted a sequential exploratory mixed method (Fig. 1). The mixed method of both qualitative and quantitative design became necessary because the study required detailed description and quantification of needs. The qualitative aspect was first carried out as a Key Informant Interview (KII) and researcher's observation of routine antenatal health talk as well as care was added to validate the information from the interviewees. The qualitative aspect was followed by a cross sectional survey. The survey involved Health Workers (HWs) in the comprehensive clinics (cc) of PHC centres of the five LGAs in the Ibadan metropolis. Written consents were obtained from the participants and approval to carry out the study was obtained in a larger study titled 'Effects of training and supervision on health talk delivery on maternal depression among Primary health care workers' from Oyo State Ministry of Health ethical review committee.

Sample size and sampling technique: Key health workers with not less than five years of experience in their key post were purposively selected from each of the four LGAs (based on volunteerism). The key informants included 1 Primary Health Coordinators and 2 maternal child health Chief Nursing Officer and 1 Chief Nursing Officers in charge of antenatal clinic. Each from four LGA out of five. The cross sectional survey following the KII was carried out in the clinic setting among PHC health workers from the comprehensive clinics in the 5 LGAs in Ibadan metropolis. One hundred and sixty five calculated sample size were evenly drawn from the five LGAs (33 participants per LGA). The selection criteria which were used included; the individual must be a Nurse, Community Health Extension Worker (CHEW) or Community Health Officer (CHO). The 11 HWs per LGAs were conveniently selected from each comprehensive clinic because a nationwide immunization exercise was going on during the survey, therefore, only 100 participants could voluntarily participate. The selection of the 100 participants was achieved through snowballing, as there was low availability of the HWs in the clinics, majority were on the field providing national immunization service.

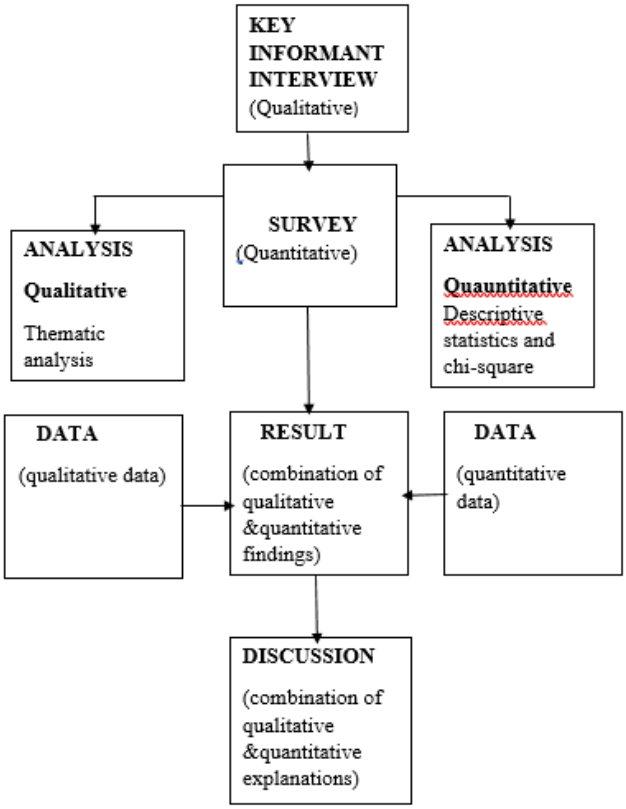

Figure 1.
Sequential exploratory mixed method (Cradtree et al., 2013. Slide presentation on Advanced method webinar: Integrating mixed methods in health services and delivery system research)

Instrument for data collection: The instrument for the key informant interview was a guide which had questions that could explore the state and the content of maternity health education in the PHCs in Ibadan, Oyo state. The interview guide had questions on the description of the routine antenatal care, routine health talk, why maternal depression was not addressed in the health talk, the needs to be able to address maternal depression during health talk and how early detection of maternal depression can be achieved. Meanwhile, the structured questionnaire for the survey was developed from the objectives of the study and enriched with responses of the interviews. It has five sections; socio demographic characteristics, role of HWs in addressing maternal depression, how maternal depression is identified, how maternal depression is being managed, maternal depression in health talk and why maternal child health clients do not seek help for maternal depression. All the instruments were

pretested and adjustment like reducing open ended responses, providing multiple choice answers and allowing respondents to give multiple responses were made on the questionnaire.

Data analysis: The KII report was analyzed thematically while survey was analyzed with descriptive statistics and chi-square with level of significance set at $\alpha_{0.05}$ using SPSS17. Towards the end of the analysis, the outcomes; both qualitative and quantitative were mixed in the result and discussion section..

Limitation if the study: The limitation of the study was that the participants were selected based on convenience therefore, the need expressed might not be generalizable. This study did examine if clients ever demanded for health talk delivery on maternal depression before or not. However, further study is being carried out by the authors on need for maternal depression education among clients

RESULTS

Socio demographic characteristics of participants

The mean age of the key informant interviewees was 54±6.1 years. The key informants were all married and their years of working experience in the particular key office which qualified them for the interview were not less than 6 years. They were not involved in the provision of clinic based health talk, their role was coordination of clinic staff and activities.
Table 1 below shows the socio demographic characteristics of health workers participants for the need assessment survey. The participant had a mean age of 42±5.2 years. Majority 41 (41%) had Bachelor of Science degree, 32 (32%) had ordinary diploma and 22 (22%) had Higher National Diploma, the remaining 5 health workers had Bachelor of Nursing, Bachelor of Education or Master in Education.

Table 1:
Socio demographic characteristics of health worker participants

Socio demographic characteristics of respondents	Frequency n=100	%
LGAS		
IBN	30	30.0
IBNE	23	23.0
IBSE	22	22.0
IBSW	15	15.0
IBNW	15	15.0
Age in years		
20-30	10	10.0
31-40	32	32.0
41-50	42	42.0
51- above	16	16.0
Marital Status		
Married	92	92.0
Widowed	8	8.0
Religion		
Christianity	75	75.0
Islam	25	25.0
Sex		
Male	16	16.0
Female	84	84.0

Majority 45 (45%) were in the Chief Nursing Officer cadre, followed by Community Extension Workers 34 (34%), followed by Community Health Officer 14 (14%) and Senior Nursing Officers 7(7%). Eighty seven percent had more than 10 years working experience while the rest 13 (13%) had less than 10 years working experience.

Table 2
Perceived effect of ignorance of maternal depression on maternal-child health clients expressed by health workers

Effect of ignorance of maternal depression	N (91)	Frequencies %
It can lead to suicide	59	64.8
It can lead to child neglect after birth	44	48.4
mother can get over it	40	44.0
It can lead to birth complication	27	29.7

All responses were multiple responses

The existing antenatal and post-natal service provision

The existing antenatal and post-natal services were largely physical health focused. The key informants mentioned the following:

i. Checking of vital signs of pregnant women during routine clinic
ii. Documentation of social demographic and the history of previous pregnancy/ies
iii. Routine investigation include urine test, Part Cell Volume (PCV), Venereal Disease RL (VDRL) to rule out syphilis in pregnancy, genotype, retroviral screening (HIV test) and malaria test.
iv. Exploration of general health condition of mother which include emotional health
v. Indication for follow up is looked out for (if there is any excessive bleeding during past labour if there is any history of hypertension and diabetes in pregnancy, past history of prolong labour or past history of depression or convulsion.
vi. PHC Coordinator informant mentioned that the traditional antennal practice which focuses on song, dancing, health talk and investigation is gradually being taken over by the recommended focus antenatal care which provides individual care to patients, instead of group health talk, it is individual health talk. He said it is not yet practiced fully in any health centre in Oyo state for now.
vii. Only uneventful vaginal childbirth is only allowed to be taken at the PHC level, after which mother goes home within two days, any indication for possible complication, and such woman will be referred to secondary health care.

Routine health talk content of antenatal clinic

The health education included topics on nutritional care and danger signs in pregnancy which include headache, leg swelling, abdominal pain and fever. The education also covered implication of raised blood pressure, abortion, use of insecticidal treated net to prevent malaria in pregnancy, prevention of maternal mortality or death of the baby, Prevention of Mother to Child Transmission of HIV (PMTCT). It also gave information on hygiene, hand-washing, neatness even in the private area of their body, the need for them to be taking hematinic regularly and the need for them to go to the clinic regularly. During post-natal women were

taught the care of baby and dispelling traditional myths and misconception. Family planning was also emphasized.

Eighty-nine percent of survey respondents provided routine health talk in their clinics. Occasionally, 76.0% of participants mentioned maternal depression during health talk because a past project trained them on screening for maternal depression. The local name reported for maternal depression were *irewesi okan* (low mood) (39.0%), *abisinwin* (peuperia psychosis) (23.0%), *ode ori ninu oyun* (mental illness in pregnancy) (7.0%), *Aare okan* (sickness of the mind) (6.0%), and *Aisan okan* (disease of the mind) (1.0%). All the participants reported Participants mentioned the conventional IEC materials they use for health talk were mentioned; poster (77.0%), leaflet (46.0%), song (87.0%) and responses to perceived preferences/effectiveness show in Figure 2. However, they reported that that maternal depression targeted IEC are not available in their clinics and they have not been trained to provide routine health talk on maternal depression.

Importance of providing health talk on maternal depression

All the key informant interviewees were quite aware of the consequences of maternal depression. They explained that a depressed mother will not be able to function well as a mother. A depressed person will have low energy to do pleasurable things, she will lose touch with her immediate environment and future. A depressed person will be in a state of lethargy, such woman will lack self-care, she will be wondering why she is eating when everything will soon be over, which is the beginning of suicidal ideation. A pregnant woman in this condition will have her baby affected by stress hormones which may lead to growth retardation or premature labour. After birth, mother may be emotionally detached from her baby.

Ninety eight survey respondents identified the supposed role of health workers in addressing maternal depression. The role mentioned included provision of health education on maternal depression 80 (81.6%), giving encouragement to mothers to seek clinic based help 49 (50.0%), provision of counseling and active referral 73 (74.4%) and provision of routine screening 58 (59.2%). Ninety out of 100 respondents also identified the likely risk factors for maternal depression pregnancy 76 (84.0%), child birth 64 (71.1%), genetic factors 43 (47.8%) and social factors 82 (91.1%). Hence, the effect of ignorance about maternal depression Table 2 and the benefits of health talk were outlined in Table 3.

Table 3

Perceived benefits of health talk on maternal depression for maternal-child health clients expressed by health workers

Benefits of health talk	N (91)	Frequencies %
It prevents complications of the condition after delivery	74	81.3
It prevents complications of delivery	71	78.0
It offers early treatment	35	38.5
It saves mother from abuse of traditional healers	34	37.4
No benefits	7	7.7

All responses were multiple responses

How early detection of maternal depression can be promoted

The PHC coordinator (doctor) among the respondents said "*from the public health point of view an awareness has to be created to the larger community at the public level either through media either radio, newspaper, television to make people aware of what is depression, what could lead to depression, the implication of depression to their wellbeing and how to handle depression/what action should be taken if one finds him or herself in such a situation*".

All key informant interviewees said that for maternity clients, there should be clinic based awareness through health talk use of song, posters and leaflet, these activities will enable prevention and early self-referral. Twenty six percent of the survey respondents said clients in maternal child care unit seek help for depression while 52.0% said they do not seek help at all for maternal depression. The terms used for depression during clients' help seeking only had responses from 28 respondents out of 100; The term included *aare okan* (sickness of the mind) (6.0%), *irewesi okan (*low mood) (4.0%), lack of appetite and insomnia (2.0%) and only (16.0%) responded as don't know. Views about how mothers perceive maternal depression got only 31 responses out of 100. They see it as a condition they can handle by themselves (24.0%) and they do not take it seriously (7.0%). Health workers' perceived seriousness of maternal depression shows 74 responses out of 100; it is serious (16.0%) and it is very serious (58.0%).

Identified needs in providing health talk delivery on maternal depression

The informants stated the past maternal depression studies which were carried out in the PHCs; EXPONATE focused on screening and treatment but the project neither provided training nor guide on how to deliver health talk on maternal depression. All the informants showed all the screening tools as evidence. Ninety-five out of one hundred survey respondents reported their perception about the competence of PHC health workers to provide health talk on maternal depression. Lack of competence to provide health talk on maternal depression was reported among (79.0%), competence was reported among (16.0%). Ninety nine respondents expressed their view that there should be active inclusion of maternal depression in the routine health talk and the reason for this had 65.0% responses. Thirty percent mentioned that PHC health workers are closer to the people at grass root, to increase the knowledge of the clients about maternal depression (20.0%), to deliver care to clients (4.0%), to prevent the occurrence (5.0%), to reduce the prevalence (1.0%), to offer early treatment (1.0%) and because it is not a well-known problem (3.0%).

A total 100 respondents expressed multiple needs as shown in Figure 2. Table 4 shows the expressed need for training and more staff across all the cadres but the need was not significantly expressed across the cadres. However, significant differences $P<0.05$ were found across the cadres in their expression for health education guide and information, education and communication (IEC) materials. Figure 3 shows how effective the participants perceived the different IEC materials (poster, song and leaflet) in passing health messages across to their clients during health talk.

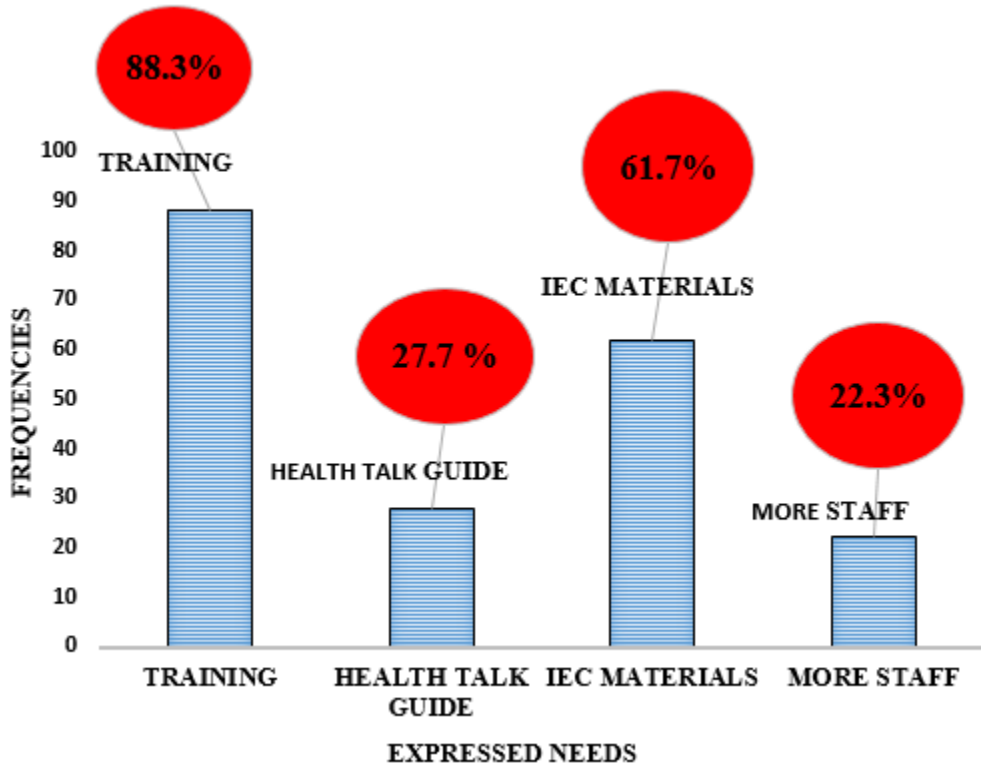

Figure 2:
Expressed need for health talk service delivery on maternal depression

Table 4
Expressed need for health talk service delivery on maternal depression across different cadres of health workers

Expressed needs/ Cadres	Chief Health Officer		Chief Nursing Officer		CHEW		Senior Nursing Officers		Total	%	X
Frequencies	**N= 21**	**%**	**N=62**	**%**	**N=72**	**%**	**N=13**	**%**			***p***
Training	12	14.4	32	38.6	32	38.6	7	8.4	**83**	**100.0**	**0.376**
Health talk guide	7	26.9	5	19.3	13	50.0	1	3.8	**26**	**100.0**	**0.001**
IEC materials	12	20.9	15	25.8	30	51.6	1	1.7	**58**	**100.0**	**0.000**
More staff	0	0	10	47.6	7	33.3	4	19.1	**21**	**100.0**	**0.26**

All responses were multiple responses

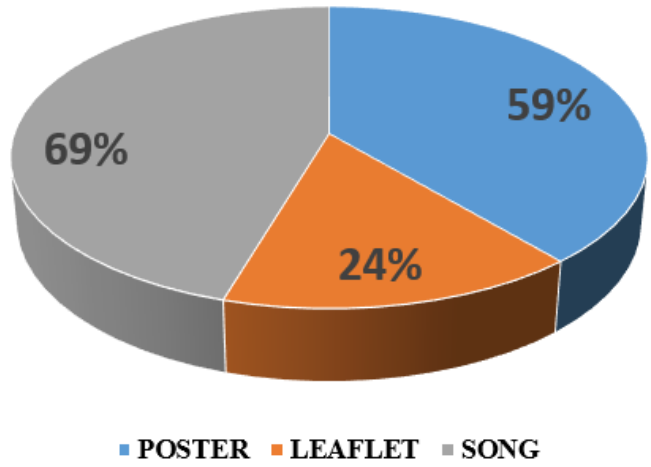

Figure 3:
Percentage of health workers who rated the effectiveness of different IEC

DISCUSSION

This study identified a need for capacity building for Primary health care workers to address maternal depression during health talk and the findings have potential value added to literature on maternal depression in Nigeria. This study gave a vivid description of the existing Primary Health Care antenatal clinics. They largely provided physical health care despite the inclusion of mental health in the PHC service (Alm-ata, 1978) and despite the skills health workers have acquired in screening and management of maternal depression from the past intervention projects (Gureje *et al*., 2015). Hitherto, depression was not mentioned in the routine maternity care health talk of the PHCs. Since 2007, Adewuya established the fact that maternal depression is often omitted in the maternity care. Till now maternal depression remained undetected.

To be specific, the existing routine health talk addressed only physical condition which included pregnancy care, immunization, nutrition, birth preparation, breastfeeding, and

Prevention of Mother to Child Transmission of HIV, as witness by researcher. Whereas, a depressed mother will not have the ability to carry out most of the activities being taught and she will probably be scolded by health workers for negligence, as depression may not be detected in her. In the existing health talk model, in the survey, few respondents claimed they make mention of maternal depression during health talk and the local terms they used for it were irewesi okan (low mood), abisinwin (peperial psychosis), ode ori ninu oyun (mental illness in pregnancy) and aare okan (sickness of the mind). The terms used to label a condition is very important as it should not be stigmatizing, strange and too complex to serve as a barrier to the clients' understanding (Kleiman, 1998). More so, non-stigmatizing interventions which are relevant to local setting were recommended (Shindahye and Giri, 2014).

Poster, leaflet and song are conventionally used in the Primary health Care setting in Nigeria to aid the health talk delivery and this study shows that song was rated to be most effective in passing health message across to clients. This is contrary to the recommendation in the guideline for developing IEC materials that the most effective way to use IEC materials is to combine the use. However, the context (yoruba culture), the target population (majorly with secondary school education) and the local community setting would likely find song to be most preferred because of less literacy. It corroborates emphasis placed on giving consideration to context, target population and setting in the process of developing of IEC (Shahnewaz, 2014). This finding has thrown light on the effectiveness of the educational material as a medium for designing maternal depression targeted educational materials. It has also thrown light on the fact that despite the shift from the traditional antenatal care into focus antenatal care, use of educative health song should not be eradicated.

The findings of this study show that participants have a good knowledge in stating the consequences of maternal depression and their responses described the consequences in pregnancy and after delivery but the risk factors they mentioned are not in total agreement with literature. Social factors were mentioned as the risk factors which were found in other studies (Milgon *et al*., 2007; Adewuya and Afolabi, 2005; Fishers *et al*., 2012). Participants mentioned pregnancy and child birth as risk factors for maternal depression. Nursing a child increases risk, it is not a risk factor, and pregnancy has not been documented to be a risk factor either (Murray *et al*., 1996). This is an indication for training need. The participants also knew the implication of ignorance of maternal depression for clients. They stated that ignorance about maternal depression among clients will lead to lack of knowledge of the consequences and lack of clinic-based help seeking. This finding is similar to the conclusion of Bruits *et al*. (2005) about their finding on the recognition of perinatal depression among his study group who did not seek help because of lack of knowledge. The findings of this study further shows that maternal depression is perceived as a serious condition among the health workers participants and they are aware that clinic based health talk will promote prevention and early detection. This awareness should be a strong motivating factor readiness to provide health education on maternal depression in order to promote early detection as recommended by (Yoshima *et al*., 2004; Shidhaye and Giri., 2014).

The findings also show the expressed need for public awareness of depression to the general population also, using newspapers and radio. Findings reveal that help seeking for maternal depression is very low and when the very few clients seek help they call it irewesi (low mood), aare okan (sickness of the mind) or they complain of loss of appetite or insomnia. Adewuya (2007) likewise reported that mothers presented physical complaints for depression. However, the mentioning of the term "low mood" and "sickness of the mind" which are symptoms of emotional health ill health coming from clients has not been documented it this part of the world. Likewise, for the clients to seek emotional help at the PHC as reported by the respondents shows a level of awareness about depression. The explaination for this could be that clients might have been exposed to past projects on maternal depression at the PHCs. It was earlier stated that there were past studies on maternal depression which trained health workers on how to screen and provide interpersonal therapy. However, none of the past project taught the health workers to give health talk on maternal depression neither were they given any health talk guide nor IEC materials. The respondents who claimed they had health talk guide probably used the maternal depression screening tool which the researcher rightly sighted during direct observation of services.

Barriers/needs identified in this study on provision of health talk on maternal depression in the PHC included inability to communicate maternal depression appropriately to the clients in a non-stigmatizing local term and lack of competence to deliver structured health talk on maternal depression. Nonetheless, the expressed needs to be able to deliver health talk in among the participants included training, need for IEC materials (poster, leaflet and song), (video and multimedia were not conventional IEC, and hence they were not mentioned). Need for social workers and more staff were mentioned. The need for training health talk delivery on maternal depression and need for more staff had stronger expression from the participants as there were no significant differences in their expressions across cadres. The need for IEC materials was next, followed by the need for health talk guide. The weak expression for the need for maternal depression targeted IEC materials and guide could be that the use of chart, pictures, guide to ease understanding of health topics (even when the materials are made available) are not day to day practice among health workers as verbal education. This finding implies that health workers could give health talk without them. However, Ogundeji *et al*. (2014) documented that health education component of PHC in Nigeria achieved improvement because of integration of targeted IEC materials which were developed from the understanding of community health problem and these materials were used to train health workers. Therefore, the training which was expressed as a need among participants should not only focus on maternal depression alone but the use of its targeted IEC materials also. This study identified actual needs and not the perceived need of the participants (PHC health workers) to be able to deliver health talk on maternal depression. Training in health talk delivery on maternal depression, need for more staff and educational materials needs were the principal needs identified. Proposed interventions in the related field could leverage this information to design a training program for the PHCs service providers. In addition, the local terms used for the expression of depression among clients should be

considered because such terms will not be regarded as offensive when used by health workers also (Kleinman, 1998).

Acknowledgement:
This study was sponsored by Consortium for Advanced Research and Training in Africa. CARTA. I also acknowledge MEPIN for providing me with hand on skill in manuscript writing. Data analysis and writing of this paper was supported by the University of Ibadan Medical Education Partnership Initiative Junior Faculty Training Programme (UI-MEPI-J) project funded by Fogarty International Center, National Institute of Health under Award Number D43TW010140. The content is solely the responsibility of the authors and does not necessarily represent the official views of the funding organizations.

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