A Review of maternal health services and barriers among women of reproductive age in rural areas of Baruipur subdivision, district of South 24 Paraganas of West Bengal state

Gita Sarkar

Librarian, Shyampur Siddheswari Mahavidyalaya, Howrah, West Bengal

Abstract:

The current study is aimed to understand the current status of utilization and barriers of utilization of maternal health services among women of reproductive age in rural areas of Baruipur Subdivision, district of South 24 Paraganas. Utilization of maternal health services and barriers of mother's literature review as a methodology in this article. Numerous data base was searched focusing on mothers and barriers of use of maternal health services among women of reproductive age. It was concluded from the literature review that their utilization of maternal health services is not satisfactory and many barriers are connected with the poor utilization of maternal health services.

Keywords: Maternal Health Services, Rural Areas, Subdivision, Reproductive, Health Checkups, Nutrition, Hospitalization, Maternal Risk, Pregnancy, Morbidity

Introduction:

The health of mothers and children reflects the wellbeing of a society. The right to health is a fundamental part of our human rights and of our understanding of a life in dignity. The right to the enjoyment of the highest attainable standard of physical and mental health, to give its full name, is not new. 'Primary health care' is the first level of contact of individuals, the family and community with the national system, where "Primary Health Care" is provided. The purpose of Primary Health Care Services is to improve the health status of the population.

According to Census Report of India 2011 (West Bengal), Baruipur subdivision of South 24 Parganas district having 73% rural population. From the male female ratio of the population, it has been found that the majority of women live in the villages. Researcher's pilot survey report says that, 1229(87.78%) maternal women belong to the rural, and 171(12.21%) maternal women are in urban areas. They are living at the below poverty line, and they are with utter problems of socio-economic, education, and health. The general absence of basic infrastructure of roads, schools, electricity, and health centers are the daily life of such areas. [1]

According to Bhavin (2016) in Indian Epic, Mahabharata, a woman was always blessed with "Sauputravativ Bhav" (be a mother of hundred sons). Because, those days the primary role of woman, was only to bear children. The situation has not changed much, since then as till date in many parts of India mainly rural areas the main role assigned to her is that of child barrier. [2]

It is common knowledge that the well-being of our society is directly related to the health and survival of mothers and children. When mothers survive and thrive, their children survive and thrive. When both mothers and children survive and thrive, the societies in which they live also thrive. The survival and well-

being of mothers and children was not only important in its own right, but also central to solving broader economic, social, and developmental problems. When mothers and children die and are ill, their families, communities, and nations also suffer. Improving the survival and well-being of mothers and children will not only improve the health of society, but also reduce inequality and poverty, even if information is lacking. When a mother is sick or dies, her productive contribution to the household, the workforce, the economy, and society is nullified, but they did not receive adequate information services, so they face various difficulties, as well as surviving and raising their children. Each year, an estimated one million infants die as a result of their mother's death (WHO, 2003). But mothers in Baruipur were not so fortunate.

The majority of women face various critical problems on a daily basis, such as family, society, workplace. The main reason was health problems. The government had introduced several health programmes to promote maternity. But the progress was very slow because of lack of education and knowledge about the new technologies. In this research, educated women had achieved demographic improvement by removing all barriers related to health, such as reducing fertility, influencing the age of marriage, regular health checkups, improving child health care and nutrition, increasing household income.

According to Vivrek (1995) and John (2005), more than 70% of women in India live in rural and remote communities. These women play an important and dynamic role in the rural economy as they are mainly involved in agriculture, but their health status is very poor. Hospitals are far from their residents, and health workers are not always able to meet the needs in their areas. It is costly to visit the health centres and hospitals to get timely information. They are rarely educated and suffer from not having access to health care. An important explanation for this observation is information poverty: women in rural areas do not have sufficient access to information sources and opportunities. [3]

So, they are information poor, there are huge barriers to access information by rural women. The present study had undertaken the problems pocketed at different conditions. There were many challenges faced by rural women in accessing health related information, as they are illiterate and uneducated also.

Barriers for women's health in rural area

Bhavin (2016) concluded in his study that the utilization of maternal health services was not satisfactory and many barriers were related to poor utilization of maternal health services.

Velkoff & Adlakha (1998) and Brown (1995) found that the greatest barriers occur at the district and block levels when written policies do not arrive on time and are easily forgotten by women. Barriers at higher levels of the health system included lack of time, lack of strategic data analysis, and lack of appropriate packaging of health information. [4]

According to Murphy & Kanost (2003), given the language and cultural barriers faced by both groups of women, written information materials are often considered inappropriate; pictorial and graphic representations in brochures have been shown to be more effective than text. While the Internet is a relatively good channel for non-English speaking women, providing easy access to information in a range of languages, this is not the case for indigenous women (Data information on women health in the European union, 2009). [5]

Kambala, et al. (2011), examined general population health problems, particularly maternal health. Problems cited were: lack of midwives, health workers driving pregnant women away, lack of or inadequate items needed by the hospital during delivery, and long hospital stays. [6]

Women's lack of decision-making power (Bijoy Krishna Banik 2016) In addition, many women lack decision-making power and the ability to move outside the family for various reasons, including seeking health services. The decision to seek health services was mainly made by the male members of the household and the husband.

Barriers for maternal health of women:

Banik, K. B. in his paper "Barriers to access in maternal healthcare services in the northern Bangladesh" found that social (early marriage, perception of pregnancy and childbirth, high financial cost) and organizational (lack of female health workers, lack of guiding health sector, exclusive errors in service distribution, low quality of services) barriers are more acute than physical (distance and waiting time). [7] Bishop et al. (1998) found that rural and isolated women face particular barriers to accessing quality information. Transportation problems and lack of access to services were common difficulties faced by rural and isolated women. The lack of accurate and up-to-date health information and the difficulty in accessing this information was a major problem for women in rural areas. Single parents in rural communities were found to be particularly disadvantaged. [8]

Olson, L. A., Kemper, J. K., Hammond, S. C., Zuckerman, S. B., & Dietrich, J. A. (2002). found that the main barriers limiting their diagnosis or treatment were not having enough time for adequate history taking or education/counselling and not being adequately trained to diagnose/counsel or treat. [9]

Haris & Wathen (2007) noted that from a social perspective, women's health appears to be even more disadvantaged than that of their sisters in large cities, due to geographic isolation, lack of access to funding, and great difficulty in accessing appropriate services that are often simply not available in rural areas. [10] Okeibunor, C. J., Onyenho, G, N., Okonofua, E. F. (2010) in their paper "Policy and programs for reducing maternal mortality in Enugu state, Nigeria" stated that medical, antenatal, obstetric and postnatal care of poor women and children in primary and secondary hospitals and those referred to tertiary hospitals in the state is not guaranteed. However, the ratio of physicians to pregnant women in the state remains very low.

For those women using rural roads and transportation, access to child care, education, independent income, and emergency shelter is limited. In addition, the literature points to the impact of the rural recession which has increased the problems faced by rural women (Yusuf, 2012 & Kuklkaf et..al. 2007 & John, 2005). [12]

Kea, Z. A., Tulloch, O., Datiko, G. D., Theobald, S., Kok, C. M.(2015) in their study "Exploring barriers to the use of formal maternal health services and priority areas for action in sidama zone, southern Ethiopia" find that lack of knowledge about danger signs and benefits of maternal health services, cultural and traditional beliefs, women's lack of decision-making power, previous negative experiences with health facilities, fear of going to an unfamiliar setting, lack of privacy, and perceived cost of maternal health services were the main factors for initial delay in deciding to seek treatment. Transportation problems in inaccessible areas were the main cause of the second delay in reaching health facilities. Lack of logistical supplies and equipment, inadequate knowledge and skills, and unprofessional behavior of health workers.

Mahmood, S. Z., Bahaaldeen, F. E. (2015) "Risk factors of the placenta previa and their consequences on feto maternal outcomes at maternity hospitals in Baghdad City" found the association between the age of the participants, age at early marriage, age at first pregnancy, interval between last and current pregnancy, number of abortions, and number of stillbirths and each of the risk factors. [14]

Kim, J. H., Kim, K. T., Song, H. J. (2015), in their article "The effects of a pregnancy and childbirth program for pregnant women of advanced maternal age," found that participation in the program had statistically significant effects on regular medical checkups, iron supplement intake, moderate physical activity, and supportive methods of childbirth preparation. Based on these findings, there is a need to continuously develop and implement a tailored program that can help pregnant women of advanced maternal age prepare for all age-related changes and risks. [15]

Environmental barriers:

According to Prince George (2007), time, environment (urban, rural), staffing, and size of a health department's service area can facilitate or hinder the physician's ability to meet information needs. Decentralization, lack of availability of Internet services in a rural setting, inadequate equipment, and lack of organized library services were cited as environmental barriers to information needs. [16]

According to Gavgani, Qeisari & Jafaruddin (2013) and Yusuf (2012), the health effects of isolation and distance are particularly severe when combined with low income and thus a lack of reliable transportation and childcare. All women had access to adequate health services, but travel costs to specialized services made it problematic for families to access adequate care, and these costs increased in more remote areas. There were no travel reimbursements, and the population size was considered insufficient to support specialists or high-tech diagnostics. Those who could not afford it subsidized the cost of health services with their own time and money. [17]

Nair, H., & Panda, R. (2013) in their paper "Quality of maternal healthcare in India: did the national rural health mission make a difference" found that 18 states deserved special attention under the NRHM due to weak public health indicators and/or weak health infrastructure. [18]

According to Bhavin (2015), the study "Maternal health services among reproductive age women" concluded that health care providers, fear of treatment or surgery are the barriers observed in the literature that affect the use of maternal health services.

Machira K, Palamuleni, M. (2015), the problem of distance to the health center were the most common among women attending prenatal, postnatal and prevention of skilled birth attendants. Secondly, the majority of women indicated that the attitude of health personnel changed for the worse compared to the type of support they received in the prenatal care center and the time they were admitted for delivery. Most of the women stated that the health care staff was very unfriendly and did not take good care of them to address their physiological changes during pregnancy. [19]

Rashash, S. D., Flayyh, H. S., Kamil, F. W. (2015), in this article "Effects of maternal risk factors on neonatal birth weight in Bint al-Huda Hospital in al-Nasiriyah City/Iraq", showed that most of the housewives had low socioeconomic status, and pointed out that there were five important variables that contributed to the occurrence of low birth weight, and these variables were gestational age, nutritional status, previous low birth weight, and psychosocial status of pregnant women during pregnancy and maternal age. [20]

Psychological barriers:

Women from other countries or immigrants did not share the same language, cultural norms, and sometimes socioeconomic status as health care providers. The interactions with the health care system described by the women were so negative and debilitating that they were discouraged from seeing health care professionals at all. Thus, this practice exacerbated rather than alleviated poor health status (Browne, Thomas, and Fiske 2000). [21] George,P. (2007) found that through observation and interviews with public health physicians, it was reported that although physicians had identified a need for information, women still did not respond to that need because they felt that the information was not found. Latha and Sojit (2018), in their paper "Maternal risk factors of hyperbilirubinemia among newborns," found that specific prenatal, intra-natal, and neonatal risk factors were higher among cases with hyperbilirubinemia. The results of the study were useful for planning strategies to prevent hyperbilirubinemia in newborns. [22]

According to Nwgwu & Ajma (2011), most women are not aware of their health and know little about modern health facilities. The long distance to general hospitals and the cost of private hospitals discouraged

them from using modern health facilities-government services, statutory facilities-and women needed intensive awareness training. [23]

Objective:

- To give description review of the research studies discussing on exploitation and barriers of utilization of maternal health services between women of reproductive age in rural areas.
- provide a detailed understanding of the prevailing disease profile including; minor illness, hospitalization, situation of maternal and child health, non-communicable diseases and mental health.
- To understand the health seeking behaviour of the inhabitants and to identity the barriers to access health care services encompassing social, physical and economic aspects.

Research Methodology:

The overall design of this study was exploratory. The research paper is an effort that is based on secondary data that was gathered from credible publications, the internet, articles, textbooks, and newspapers. The study's research design is primarily descriptive in nature.

Result and Discussion:

Maternal and Child Health Issues:

Maternal and child health is crucial in health care related issues and provisioning of health care facilities. The reason is that both are crucial in determining the health and productivity of future generations. The Government of India has repeatedly taken steps to strengthen maternal and child health services in the country, starting during the First and Second Five-Year Plans (1951–56 and 1956–61) under the Ministry of Health, and continuing with the Minimum Needs Programmed initiated during the Fifth Five-Year Plan (1974–79). More recently, efforts to improve maternal and child health have been enhanced by activities of the Family Welfare Programme and by the introduction of the Child Survival and Safe Motherhood Programme (Ministry of Health and Family Welfare, 1992). The Ministry of Health and Family Welfare has also sponsored special projects under the Maternal and Child Health Programme, including the Oral Rehydration Therapy (ORT) programme, the establishment of Regional Institutes of Maternal and Child Health in states where infant mortality rates are high, the Universal Immunization Programme, and the Maternal and Child Health Supplemental Programme within the Postpartum Programme. These programmes are now integrated into the Reproductive and Child Health (RCH) Programme launched in 1996. This new programme seeks to integrate maternal health, child health, and fertility regulation interventions with reproductive health programmes for both women and men.

Maternal and child health services in rural areas of the country are delivered mainly by government-run Primary Health Centres and Sub-centres. Some major issues related to this area are:

- Age at marriage including the issue of birth order and birth interval
- Family planning
- Nutrition and the prevalence of anaemia
- Maternal and reproductive health
- Immunization

The GIS village level map is used to present a snapshot of the situation with respect to child and maternal health. Figure 1 shows the spread of Maternity and Child Welfare Centers in the district. It can be seen that in most areas; such centres are absent. Villages in the Sundarban Region do have some Centers (1-4); their number is 7 only in two pockets in Region-II.

The performance of South 24 Parganas is satisfactory with respect to immunization as we have discussed in subsequent section. However, there is considerable room to improve the situation with respect to other parameters relating to child and maternal health. The status of maternal and child health problems in rural areas of South 24 Parganas are rooted in the widely prevalent practice of early marriage, accompanied by high fertility. Contraceptive prevalence is still low in the district, as a result of which birth spacing cannot be practised efficiently by the parents. An analysis of these trends in the district is important to identify the blocks for improving maternal and child health. [24]

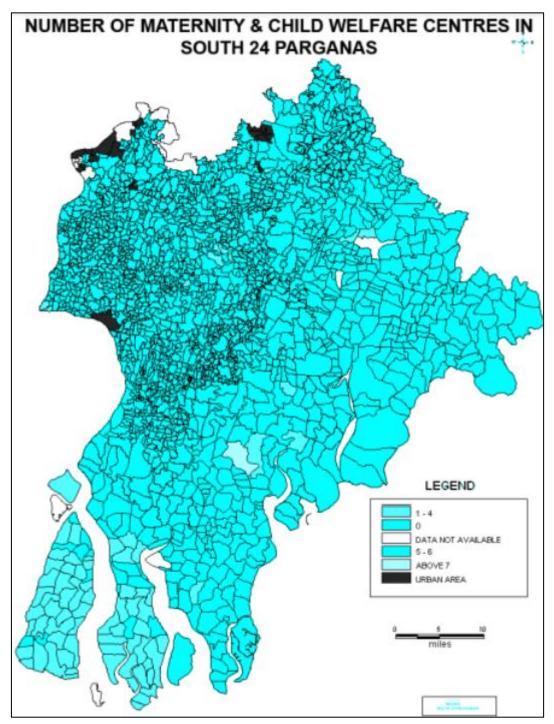


Figure 1: Number of Maternity and Child Welfare Centers

Pregnancy and Maternal Morbidity:

The issue of pregnancy and maternal deaths is related to several aspects like the following: z Provision of antenatal care (ANC), including at least three antenatal care visits, iron prophylaxis for pregnant and lactating mothers, two doses of tetanus toxoid vaccine, detection and treatment of anemia in mothers, and management and referral of high-risk pregnancies

- Encouragement of institutional deliveries
- or home deliveries assisted by trained
- health personnel
- Provision of postnatal care, including at
- least three postnatal visits
- Identification and management of
- reproductive tract and sexually
- transmitted infections

In rural areas, a female paramedical worker, called an auxiliary nurse midwife (ANM), is posted at a Subcenter to provide basic maternal health, child health, and family welfare services to women and children either in their homes or in the health clinic. Her work is overseen by the lady health visitor (LHV) posted at the PHC. With regard to safe motherhood, the ANM is responsible for registering pregnant women, motivating them to obtain antenatal and postnatal care, assessing their health throughout pregnancy and in the postpartum period, and referring women with high-risk pregnancies. The ANM is assisted by a male health worker whose duties include motivating men to participate in the family welfare programme and educating men about reproductive tract and sexually transmitted infections. The ANM and LHV also assist the medical officer at the PHC where health services including antenatal and postnatal care are provided. Apart from the Government, several NGOs have extended their hands to promote mother and child care activities. One such organization (SHIS) has become popular by working in different villages of South 24 Parganas and focuses on addressing the unmet RCH needs by delivering RCH services, in areas which are under-served or un-served by the government infrastructure. Proposed programme is aimed to enhance male involvement and partnership in improving the reproductive health status of women and children in four blocks of South 24 Parganas, viz. Namkhana, Kakdwip, Patharpratima and Kultali. The intervention also includes adolescent population. The community is mobilized and made more aware of their needs to

Antenatal Check-Ups:

generate demand for RCH services in the target region. [25]

According to RCH programme a pregnant woman should have an antenatal check-up by visiting a doctor or another health professional in a medical facility, receiving a home visit from a health worker, or both. But the surveys regarding this issue reveal that rural areas of the country are far from receiving this type of care in most of the cases.

Two important issues related to antenatal care are Tetanus Toxoid Vaccination and Iron and Folic Acid Supplementation. An important cause of death in infancy mostly in rural areas of our country is neonatal tetanus, which is caused by newborn infants becoming infected by tetanus organisms, usually at the umbilical stump. Neonatal tetanus is most common among children who are delivered in unhygienic environments and when unsterilized instruments are used to cut the umbilical cord. Tetanus typically develops during the first or second week of life and is fatal in 70–90 percent of cases. Two doses of tetanus toxoid vaccine given one month apart during early pregnancy are nearly 100 per cent effective in preventing tetanus among both newborn infants and their mothers. Apart from the problem of tetanus, another threat to

safe motherhood is nutritional deficiencies often exacerbated during pregnancy because of the additional nutrient requirements. Iron deficiency anaemia is the most common problem in this situation which not only poses threat to the mother but also to the health and survival of infants contributing to low birth weight, lowered resistance to infection, impaired cognitive development, and decreased work capacity. Improvement in a woman's nutritional status, coupled with proper health care during pregnancy, can substantially increase her child's birth weight. To this end, the provision of iron and folic acid (IFA) tablets to pregnant women to prevent nutritional anaemia forms an integral part of the safe motherhood services offered as part of the RCH Programme. The programme recommends that pregnant women should consume 100 tablets of iron and folic acid during pregnancy.

In the absence of data, it is not possible to comment on the coverage of pregnant women under the Antenatal Care schemes in different blocks of South 24 Parganas. However, given the early year of marriage and high CBRs, the number of pregnant mothers is likely to be substantially higher than the number of registered cases. This calls for steps to increase the coverage of women under the ANC schemes. Given the mobility of women - from their matrimonial home to maternal homes (during pregnancy) and return to matrimonial homes (after delivery) - it is difficult to keep a track of mothers who have been provided with the required ANC checkups. The data collection and retrieval system have to be improved to take into account the mobility of expecting mothers. The available figures presented in the following Table reveal that the percentage of registered mothers completing 3 ANC checkups is satisfactory only in Budge Budge-I and II, Bishnupur-I and II, Falta, Diamond Harbour-I and II, Magrahat-II and MathurapurI and II. The situation has to be improved in the Sundarban area (particularly in Joynagar, Kakdwip and Sagar blocks), and in Sonarpur and Baruipur blocks.

As many as one in five pregnant women registered for ANC suffer from anemia. This proportion is highest in Region-II (23%), followed by the Sundarban region (21%). In Region-I, this proportion is relatively low, but still at an unacceptable 11%. In 15 blocks of the district, the incidence of anemia among the pregnant women is relatively high. Seven of these blocks are in Region-II (Falta, Diamond Harbour-I and II, Magrahat-I and II, Kulpi and Mandirbazar), and eight in Region-III (Canning-II, Joynagar-II, Mathurapur-I and II, Kultali, Patharpratima, Kakdwip and Namkhana). The proportion is highest in Mathurapur-II and Mandirbazar (above 40% in both cases). This has important consequences for both the mother and child – onone hand it leads to High-Risk cases, on the other hand, it increases the possibility of mortality during birth and leads to a high proportion of babies with low birth weight. Community participation is very important in addressing these problems as concern for women, even pregnant women, is not very prevalent in rural areas of our society. The Integrated Child Development Scheme (ICDS) and NGOs have an important role to play in changing attitudes and addressing nutritionrelated problems. This has been evaluated in a subsequent section.

ANTENATAL CARE H.R.P.W.Referred No.of TT Cases No. of No. of Preg. No. of Case No.of preg.-Block preg.women check for ANC women given ups treatment phylaxis Attended Referred for for TT2 Attended to FRU TT-1 Booste Thakurpukur-Mahestala Budge Budge - I Budge Budge - II Bishnupur - I Bishnupur - II Sonarpur Region I: North West (Kolkata Surroundings Baruipur Bhangar I Bhangar II Falta Diamond Harbour - I Diamond Harbour Magrahat I Magrahat II Kulpi Mandirbazar Region II: North East and Mid West Canning - I Canning - II Basanti Gosaba Joynagar - I Joynagar - II Mathurapur - 1 Mathurapur - II Kultali Patharpratima Kakdwip Namkhana Sagar Region III: South (Sundarbans) Total Source: Office of CMOH, South 24 Parganas

Table 1: No. of cases given Antenatal Care - 2006-07

Place of Delivery:

Another important thrust of the Reproductive and Child Health Programme is to encourage deliveries under proper hygienic conditions under the supervision of trained health professionals. Women who receive antenatal check-ups are more likely than other women to deliver in a health facility because their antenatal care providers are likely to have advised them to do so.

The proportion of safe deliveries is quite high throughout the district. Such deliveries include deliveries occurring in medical institutions or home deliveries assisted by Auxiliary Nurse Midwives (ANM). Decomposition of the proportion of safe deliveries reveals that less than half of the babies born are delivered in institutions.

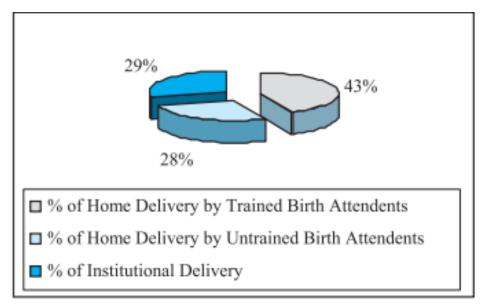


Figure 2: Delivery Status [26]

Conclusion

The literature review for the utilization and barriers of service of mother's health services among reproductive age women conclude that regardless of many health programmes related to maternal health, the exploitation of the mother services is not satisfactory particularly in rural area. Further lack of knowledge, health center too far or no transport, economic reasons, relatives and families' practices and established norms, past knowledge with health care providers, fear of management or surgical treatment are the barriers experiential in the literature which affects the operation of maternal health care services. So, they are information poor, there are huge barriers to access information by rural women. There were many challenges faced by rural women in accessing health related information, as they have faced information barrier for health.

References:

- Census of India (2011). District census handbook South 24 parganas. Retrieved from: http://www.censusindia.gov.in/2011census/dchb/1917_PART_B_DCHB_SOUTH TWENTY FOUR_PARGANAS.pdf
- 2. Bhavin, P. S. (2016) A Mix Method Study on Utilization of Maternal Health Services and Barriers among Women of Reproductive Age in Selected Rural Areas of Anand District of Gujarat Stateliterature Review. International Journal of Nursing Education, 10(1), 117-120. DOI Number: 10.5958/0974-9357.2018.00023.5
- 3. Johns, N. (2005): Positive action and the problem of merit: Employment policies in the National Health Service. Critical Social Policy, 25(2), 139-163.
- 4. Velkoff, V. A., & Adlakha, A. (1998). Women of the world: Women's health in India. United States Census Bureau. International Program Centre. https://www.census.gov/content/dam/Census/library/publications/1998/demo/wi 98-3.pdf
- 5. Murphy, M, Murphy, B & Kanost, D. (2003). A literature review of women as information seekers, electronic version, Access to women's health information, Women's Health Victoria, Melbourne.
- 6. Kambala, C., Morse, T., Masangwi, S., &Mitunda, P. (2011). Barriers to maternal health service use in Chikhwawa, Southern Malawi. Malawi medical journal, 23(1). DOI: 10.4314/mmj. v23i1.67673
- 7. Banik, B. K. (2016). Barriers to access to maternal healthcare services in the Northern Bangladesh. Southeast journal for public health, 6(2), 23-36. DOI: https://doi.org/10.3329/seajph.v6i2.318

- 8. Bishop, S., Panjari, M., Astbury, J. & Bell, R. (1998). A survey of antenatal clinic staff: Some perceived barriers to the promotion of smoking cessation in pregnancy. Australian College of Midwives Incorporated Journal, 11(3), 14–18. Doi:10.1016/s1031-170x (98)80007-
- 9. Olson, L. A., Kemper, J. K., Hammond, S. C., Zuckerman, S. B. & Dietrich, J. A. (2002). Primary care pediatricians roles and perceived responsibilities in the identification and management of maternal depression. Official journal of the American academy of pediatrics.1169-1176.
- 10. Harris, R. & Wathen, N. (2007). If my mother was alive I'd probably have called her.":Women's search for health information in Rural Canada. Reference and user services quarterly, 47(1), 67-79. DOI: 10.2307/20864799
- 11. Okeibunor, C. J., Onyeneho, G. N. &Okonofua, E. F. (2010). Policy and programs for reducing maternal mortality in Enugu state. African journal of reproductive health, 14(3), 19-30.
- 12. Yusuf, T. I. (2012). Information needs, sources and information seeking behaviour of women artisans in Offa Metropolis. Library Philosophy and Practice (ejournal), 1201. https://core.ac.uk/download/pdf/188096807.pdf
- 13. Kea, Z. A., Tulloch, O., Datiko, G. D., Theobald, S., & Kok, C. M. (2015). Exploring barriers to the use of formal maternal health services and priority areas for action in sidama zone, southern Ethiopia. BMC Pregnancy and Childbirth, 18(1).
- 14. Mahmood, S. Z. &Bahaaldeen, F. E. (2015). Risk factors of the placenta previa and their consequences on feto-maternal outcomes at maternity hospitals in Baghdad City. Indian journal of public health research and development, 9(8), 1292-1298.
- 15. Kim, J. H., Kim, K. T., & Song, H. J. (2015). The effects of a pregnancy and childbirth program for pregnant women of advanced maternal age. Indian journal of public health research and development, 9(9), 737-741.
- 16. George, A. (2007). Persistence of High Maternal Mortality in Koppal District, Karnataka, India: Observed Service Delivery Constraints. Reproductive Health Matters, 15(30), 91–102. Doi:10.1016/s0968-8080(07)30318-2
- 17. Gavgani, V. Z., Qeisari, E. & Jafarabadi, M. A. (2013). Health information seeking behavior (HISB): a study of a developing country. Library philosophy and practice (e-journal), 2, 1-2013.
- 18. Nair, H., & Panda, R. (2013). Quality of maternal healthcare in India: has the national rural health mission made a difference. Journal of Global health, 1(1), 79-86. PMID: 23198105
- 19. Machira, K. &Palamuleni, M. (2015). Women's perspectives on quality of maternal health care services in Malawi. International Journal of Women's health, 10, 25-34. DOI: 10.2147/ijwh. s144426
- 20. Rashash, S. D., Flayyh, H. S. & Kamil, F. W. (2015). Impact of maternal risk factors on birth weight of newborn in Bint Al-Huda hospital at Al-Nasiriyah city/Iraq. Indian journal of public health research and development, 9(8), 1392-1398. DOI: 10.5958/0976-5506.2018.00926.9
- 21. Brown, J. D. (1995).: Adolescent room culture: Studying media in the context of everyday life. J Youth Adolescence 24(3), 551–576.
- 22. George, P. BC. (2007): The Determinants of Women's Health in Northern Rural and Remote Regions Examples and Recommendations from Northern British Columbia. Journal of Social Science, 23 (5), 124-137
- 23. Nwagwu, E. W. & Ajama, M. (2011). Women's health information's needs and information sources: a study of a rural oil palm business community in South- Western Nigeria. Annals of library and information's studies, 58, 270-281.
- 24. Ray SK, Mukhopadhyay BB, Das R, Ganguly MM, Mandal A, Roy SC. Extent of utilization of maternal care services of P.H.C. by the families of a rural area. Indian J Public Health 1984; 28:122-7.

- 25. Ray SK, Mukhopadhyay BB, Ganguly MM, Das R. Some aspects in the utilization of Primary health Centre services in a rural area of West Bengal. Proceedings of the 3rd International Congress of the World Federation of Public Health Association and the 25th Annual Conference of the Indian Public Health Association. Indian Public Health Association, 110 Chittaranjan Avenue, Calcutta 700073. 1981 (printed in 1983). p. 518-23.
- 26. Bertakis KD, Azari R, Helms LJ, Callahan EJ, Robbins JA. Gender differences in the utilization of health care services. J Fam Pract 2000; 49:147-52.