Review Article

Asian Jour Hosp Phar, Vol: 3, Issue: 3, 2023; 5-10

Asian Journal of Hospital Pharmacy

Content Available at www.ajhp.online ISSN: 2583-0724

A REVIEW PAPER ON ANGANWADI WORKERS KNOWLEDGE ON MATERNAL NUTRITION

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Received: 08 Sept 2023 Revised: 21 Sept 2023 Accepted: 18 Oct 2023

Abstract

The present study reviews the Maternal Nutrition knowledge of health care providers (ANMs and ASHAs) of Primary Health Centers (PHCs) and Community Health Centers (CHCs) and attempts to find out the existing gaps in their knowledge level related to maternal nutrition as well as discusses strategies to bridge those gaps. Good nutrition is the core pillar for human development and its necessity varies with respect to age, gender and during physiological changes such as pregnancy which is a critical phase in a woman's life when the expectant mother needs optimal nutrients to support the developing fetus. Awareness about appropriate nutrition during pregnancy is a serious concern and lack of it may lead to child morbidity and mortality. Therefore it is imperative to address this issue properly in various government policies and schemes. ICDS scheme initiated by Government of India is a major step in this regard which provides nutrition after maternal and health education, supplementary nutrition, family planning tips etc. to the pregnant women. The Anganwadi workers are the basic functionaries of the ICDS scheme and their services (providing counseling, supplementary nutrition, distribution of Iron & Folic acid tablets) are transmitted to the beneficiaries through a channel of Anganwadi centers (AWCs). Keeping the above background in mind relevant literature such as journals, newspapers, articles, research papers from Scopus, Pub Med, research gate, and Google scholar related to national and state policies pertinent to maternal nutrition were reviewed to find out the existing gaps in the knowledge level of health care providers. It is concluded from the study that maternal nutritional needs have to be prioritized in government health programmes and strategies to improve the status of expectant mothers need to be implemented to address nutritional challenges. Government schemes can be strengthened by promoting integration of services, ensuring effective procurement mechanisms for supplementary nutrition and food supplements, establishing regional training facilities and strengthening program monitoring and evaluation.

Keywords: Maternal nutrition, Anganwadi Workers, Pregnancy, Knowledge, Education, Pre- natal care, Anganwadi centers.

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DOI: https://doi.org/10.38022/ajhp.v3i3.75

Introduction

Nutrition is a core pillar of human development and can advance the progress of nations. Good nutrition is the fundamental basic requirement for maintenance of positive health [1].

The term "maternal nutrition" focuses attention on mothers and their nutritional status as it relates to the bearing and nurturing of children. A nutrient-rich maternal diet before and during pregnancy is associated with improved fetal health, more appropriate birth weight, and increased rates of maternal and infant survival [2]. Nutritional status is one of the key indicators of the health of a mother and child [3]. The nutritional status of a woman preconception and during pregnancy influences the growth and development of the baby, as well as forms the foundation for the baby's health in later years. Hence, ensuring that expecting mothers are well-nourished is very crucial and important for the growth and development of child.

At present, the Government of India is initiating various flagship programmes (ICDS, JSY, and SNP) to enhance the nutritional status and provide better care and support to pregnant women. Among them ICDS scheme is one of the world's largest leading programme to support pregnant and lactating women, through a network of Anganwadi centers (AWCs) each typically serving a population of 800-1000. The Anganwadi workers (ANMs and ASHAs) who act as front line workers are the important functionaries of the ICDS scheme and play a

crucial role in promoting maternal growth and development.

Most of the researches done in the past have assessed the nutritional status of the ICDS beneficiaries and have evaluated the nutrition and health services rendered by Anganwadi workers but very few studies have focused on the assessment of the nutritional knowledge of the Anganwadi workers (ANMs and ASHAs) for proper service and delivery to the expectant mothers and their neonates [4].

A sound knowledge regarding nutrition and health care of the AWWs (ANMs and ASHAs) will strengthen their skills and enable them to raise their potential to identify the high risk pregnant women. Good knowledge and proper implementation of the services will act as a teaching tool for empowering the mothers for preventive actions and better nutrition care of their children. All in all we can say that the effective outcome of the nutrition and health services offered by ICDS scheme is purely dependent on the knowledge and skills of the Anganwadi workers (ANMs and ASHAs).

Thus, there is a dire need to assess the level of nutritional knowledge of Anganwadi workers (ANMs and ASHAs) as they play an important role in society due to their close and continuous contact with the people of community, especially the children, pregnant and lactating women.

Discovering the gaps

Anganwadi workers are considered as India's primary tool against the menace of infant mortality, lack of women education and community health problems [5]. Therefore, it is crucial for them to have adequate knowledge and skills regarding the promotion of maternal health and nutrition care on various aspects like immunization, supplementary nutrition, referral services, maternal and nutrition education (MNE), Iron and folic acid tablet (IFA) consumption etc. so that they are able to provide effective nutritional services to women during pregnancy.

Various studies have been done in the past to assess the maternal nutrition knowledge of Anganwadi workers. In an early study conducted by Mekhoa findings showed that knowledge of nurses regarding maternal nutrition was average. The nurses showed poor knowledge on the recommended time for storage of iron, calcium and folic acid tablets [6]. MNE (Maternal Nutrition Education) knowledge and skills of the midwives were also found to be limited and they had moderate confidence in performing the MNE (Maternal Nutrition Education) [7]. One of the reason lying behind this is majority of them received no education in nutrition and health care and almost half of the AWWs achieved a poor score in nutrition knowledge [8]. It was also found that they also lacked sufficient knowledge, skills, and confidence in lifestyle content to effectively assess and support healthy lifestyle behaviors in pregnant women [9]. Various researches had revealed that midwives lacked a basic knowledge of nutrition requirements during pregnancy. This aspect of them might be linked to inadequate nutrition education provided in both undergraduate and postgraduate midwifery programmes [10].

Almost half of the Anganwadi workers are not aware about the services (immunization, referral services, supplementary nutrition, health check-ups) offered to them for ensuring good health and proper care of pregnant women [11]. As per another study only 45.39 percent of AWWs (Anganwadi workers) had knowledge regarding referral services [12]. It was also found that they had a least score about knowledge in supplementary nutrition (31.9 percent) [13].

The health of an expectant mother depends a lot on the physical and mental activity undertaken by her. Activities like yoga and meditation have been found to have positive effects on the health of the mother and the unborn child. Previous researches have pointed out that the knowledge of AWWs regarding physical and mental development was scarce in AWCs (Anganwadi centers) [14].

On the other hand, prenatal education is also very important and plays a key role in promoting awareness among Indian women. Women in India lack complete knowledge about prenatal care. They need to have complete information about pregnancy and the need of prenatal care. A Study revealed that the correct scores related to antenatal care, post-natal care, family welfare services, and nutritional anemia were not up to mark and not satisfactory [15]. It has also come to light that there is a need for more organized educational activities (information regarding regular health check-ups, sonography, cesarean birth etc.) for the AWWs to ensure high quality and proper services of maternal health and child care [16].

The nurses also had difficulty in expressing their knowledge of nutrition using professional concepts since they mainly used general phrases like wajan as weight [17].They also possessed limited knowledge of maternal nutrition and did not perform the nutritional assessment criteria like measuring weight and blood pressure, body mass index, waist circumference, diet intake, dietary habits, screening for diseases like gestational diabetes, hypertension etc. appropriately in practice which are basic to evaluating the women's nutritional status [18].

Women have distinct nutritional requirements throughout their life – especially before and during maternity. Ensuring women receiving nutritious well-balanced diet, adequate services and care are fundamental for the survival and well-being of mothers and their children. Most of the frontline workers also showed poor level of knowledge about nutrition and balanced diet during pregnancy [19]. This can be due to the fact that midwives somewhere lack the importance of providing healthy eating advice to pregnant women and the health risk associated with poor diet and improper dietary habits

[20] which results in low birth weight baby, birth defects, weight gain and many more.

They also lacked proper guideline knowledge (provided by ICMR and NIN) which provides a barrier to best-practice care towards pregnant women [21]. Another study from Northeast District of Delhi, observed deficiency in the provision of services at the AWCs along with inadequate knowledge among Anganwadi workers regarding revised nutrition norms [22]. Also the nurses possess a need and a readiness amongst them to develop nutrition counseling in health clinics [23].

The lack of skills and expertise of AWWs has resulted in their incapability to motivate mothers to make them aware towards nutrition and dietary guidelines during conception. There also exists a huge communication gap between AWWs and mothers resulting into problems faced by AWWs about the activities and components included in ICDS programme [24]. One of the key challenges for women adhering to dietary recommendations was having inadequate knowledge of the dietary recommendations and receiving limited information from the caregivers during their antenatal visits in the Anganwadi centers [25]. The caregivers also have limited information on infant and maternal nutrition and they possessed less communication and counseling skills. For effective outcomes health care providers, should be given adequate counseling and health education on antenatal care which will reduce the poor number of antenatal visits among pregnant women [26].

Bridging the gaps

As communicated in the previous sections pregnant woman face lots of issues related to proper guidelines and appropriate services delivered by health care providers. Therefore, it is imperative to resolve issues which are likely to hinder their health during pregnancy. Proper access to antenatal care, skilled care during childbirth and care and support in the weeks after childbirth are some of the measures that can be undertaken in this regard. All births should be assisted by skilled health professionals as timely management and treatment can make the difference between life and death for both the mother and the baby. Although, the Government of India has been focusing on initiatives to improve maternal health indicators but still there exists a wide gap between the facilities availed by the rural and urban milieu. Due to gaps in knowledge, policies and resource availability the coverage of life-saving health interventions and practices should always be encouraged in this regard.

Study done in the past contributes to the evidence that mHealth (Maternal Health) interventions can improve community health workers efficiency and effect of performing roles and responsibilities [27]. Anganwadi Workers who had taken training programme on maternal nutrition and care were of the opinion that there is improvement in their knowledge and practice after training [28]. Majority (78.4%) of them agreed that additional training in nutrition would allow them to provide better clinical care [29]. Nutrition educational intervention is associated with improved nutrition counseling knowledge and skills of Anganwadi workers [30]. Knowledge level of Anganwadi workers can be enhanced by providing them with nutrition educational intervention encompassing nutrition counseling, maternal nutrition education which will be helpful in upgrading their already existing skills and knowledge level. Knowledge related to diet, health, disease, immunization, supplementary nutrition of expectant mothers and the right application of such knowledge when situation arises can go a long way in bridging the knowledge gaps of the AWWs.

Women have distinct nutritional requirements throughout their life – especially before and during maternity. Ensuring women have nutritious diets and adequate services and care is fundamental for the survival and well-being of mothers and their children. To ensure this, appropriate strategies need to be devised to equip the health care providers with appropriate nutrition education. Implementing interventions programme like-providing knowledge on Maternal Nutrition Education to midwives, AWWs will be able to educate women about nutrition, maternal and infant care in better way. Anganwadi workers (AWWs) must also be provided with good initial training before being inducted into the centers. Apart from this, there should be provisions for regular training and sensitization programs for the workers to adapt to new developments and practices in the community [31].

The Anganwadi workers need to be trained regularly and their knowledge updated from time to time followed by timely quality assurance of services. There is also a need to address the problems faced by the workers while delivering their duties. Apart from this, there is an urgent need to administer and evaluate the scheme at all levels through effective supervision at each tier and to take corrective actions accordingly.

For proper utilization of services offered by Anganwadi workers, antenatal care and visits to nearby Anganwadi centers are equally important for the expectant mothers. Antenatal care is the 'care before birth' to promote the well-being of mother and fetus and is essential to reduce maternal morbidity and mortality, low-weight births and prenatal mortality [32]. Promoting and emphasizing counseling or delivery of information by health care providers to women or their family members such as consumption of iron-folic acid and calcium tablets by pregnant women would be helpful in improving nutrition outcomes.

Promoting frequent antenatal care visits and giving counseling on the benefit of iron-folic acid and cause, prevention and treatment of anemia are some of the essential strategies which need to be followed to raise knowledge of pregnant mother on anemia and the benefit

of iron-folic acids supplements [33]. Strengthening provision of IFAS (Iron Folic Acid Supplements) learning materials and enhancing CHWs (Community Health Workers) involvement can be fruitful in this regard [34]. Also, appropriate use of counseling material based on locally relevant information and engaging influencers like mother-in-law and husbands, are effective approaches to improve maternal nutrition outcomes.

The World Health Organization's (WHO) latest guidelines on antenatal care (ANC) recommend fourteen evidence-based nutrition interventions towards a healthy pregnancy including nutrition counseling, iron and folic acid (IFA) and calcium supplementation etc [35]. Apart from this awareness regarding services provided by the Anganwadi must be improved, through home visits by ASHA, ANM and AWW. During ANC (Antenatal care) and PNC (Post- natal care) visits doctors and nurses should use the opportunity to encourage utilization of services from community-based health programs like ICDS. Anganwadi workers should expand their focus of health education to include topics that can potentially save lives of mothers and their newborns like birth preparedness, danger signs and essential obstetric care using MCP (Mother- Child protection) card as an educational tool [36].

It is well known to all that the nutritional needs of a person cannot be meet by consuming any single food. A proper balanced diet is appropriate for pregnant women to deliver a healthy baby. The concept of healthy plate can be a helpful guideline for the pregnant women to understand her daily nutrition requirements and food consumption. Thus an educational intervention based on My Plate guidelines can be followed to increase pregnant women's knowledge of nutrition [37].

Conclusion

Inadequate knowledge and skills on the part of the Anganwadi workers coupled with inappropriate nutrition education deprives them from playing an effective role in providing nutrition counseling to expectant mothers [38]. Enhancing the knowledge level of AWW's in the Anganwadi centers can prove to be a crucial intervention to ensure that every expectant mother receives a healthy start. The key to programme intervention is regular training sessions of the AWWs (ANMs and ASHAs) which will be fruitful in their capacity building and promotion of Interpersonal communication (IPC) skills. All the services offered to the beneficiaries be it family planning counseling, health and diet monitoring of the expectant mothers, immunization etc. need to be strengthened through adequate interventional strategies for appropriate outcomes.

Funding

No Funding

Acknowledgement

I am extremely indebted to my guide who helped me in the genesis of this paper and provided useful insight about maternal Nutrition and supported me throughout the process.

Inform Consent

Not Applicable

Ethical Statement

Not Applicable

Conflict of Interest

There is no conflict of interest

Author Contribution

Both the authors contributed significantly to the writing and revision of this manuscript.

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