SEXUAL AND REPRODUCTIVE HEALTH OF FEMALE MIGRANT WORKERS: UNDERSTANDING FIELD REALITIES AND VIEWING THEM THROUGH A SOCIOECOLOGICAL LENS

Siny Maria Skaria[1] & Anish K R[2]

[1]Phd Scholar, Department of Social Work, Rajagiri College of Social Sciences (Autonomous), Rajagiri P.O. Kalamassery, Cochin- 683104, Kerala, India, [2]Assistant Professor, Department of Social Work, Rajagiri College of Social Sciences (Autonomous), Rajagiri P.O. Kalamassery, Cochin-683104, Kerala, India

Correspondence: Siny Maria Skaria,email:siny.skaria@gmail.com

ABSTRACT

Background, aims & objective: This article aims to understand the sexual and reproductive health status i.e. current knowledge, attitude and practices of female migrant workers in the reproductive age group of 15- 49 years who work in the lowest rungs of the unorganized sector jobs, and analyse the information using a socio- ecological lens. For the purpose of this study, sexual and reproductive health encompasses the domains of menstruation and menstrual hygiene management, maternal health, contraception, unwanted pregnancies and abortions.**Methodology:** The article is based on a literature review in the domains of sexual and reproductive health namely menstruation and menstrual hygiene management, maternal health, contraception, unwanted pregnancies and abortions, combined with the field experiences and interactions of the authors with the study respondents i.e. female migrant workers**.** Perspectives of healthcare workers was also sought, by virtue of their work with the migrant community of providing maternal healthcare and awareness and service provision related to contraception.**Results and conclusion:** By embedding the field observations and study data obtained through interactions in a socio-ecological framework, we move away from a traditional medical understanding of the topic and instead look at it from the perspective of many factors present at every level of the framework that are at play and together shape the sexual and reproductive health of female workers.

Keywords: Sexual and reproductive health, Female migrant workers, Socio-ecological framework.

INTRODUCTION

Migration of people is among the three key demographic process, the other two being birth, and ageing and death. The three together have been the cornerstones of population changes in all societies. A migrant as defined by the International Organization for Migration (IOM) as "a person who moves away from his or her place of usual residence, whether within a country or across an international border, temporarily or permanently, and for a variety of reasons" It may be said here that a universal definition of the term 'migrant' is presently unavailable. The movement takes regardless of a person's legal status, voluntary or involuntary status of the movement, causes for the movement and length of the stay (UN Migration Agency).

Migration as a phenomenon can be international or domestic. As per an IOM statistic, around 281 million people migrated

complete physical, mental and social well-being in all matters relating to the capability to reproduce and the freedom to make related decisions (UNFPA).

From a global development perspective, SRH is recognized as a foundation of sustainable development, that is aimed to be achieved through the Sustainable Development Goals (SDGs) (Kanem, 2018). While the third and fifth goals of the SDGs explicitly aim at improving SRH and related services universally, other goals (6, 8 and 10) indirectly advocate for the same (UNDESA).

SRH of women is marked by various processes and related issues at different life stages starting with menarche and menstruation, fertility, pregnancy and contraception, sexually transmitted infections, unplanned pregnancies, abortions, cervical cancers, and menopause.

This article aims to understand the SRH status i.e. current knowledge, attitude and practices of FMWs in the reproductive age group of 15-49 years who work in the lowest rungs of the unorganized sector jobs in plywood companies and brick kilns, and analyse the information using a socio- ecological lens. It is a working paper as part of a larger ongoing research being done in Ernakulam district, Kerala and is based on a literature review in the domains of SRH, combined with the field experiences and interactions of the authors. Perspectives of healthcare workers was also sought, by virtue of their work with the migrant community of providing maternal healthcare and awareness and service provision related to contraception. For the purpose of this study, SRH encompasses the domains of menstruation and menstrual hygiene management, maternal health, contraception, unwanted pregnancies and abortion. In embedding the study in a socio-ecological framework, we move away from a traditional medical understanding of the topic and instead look at it from the perspective of many factors present at every level of the framework that are at play and together shape the SRH of FMWs. A comprehensive understanding is gained on how the individual level as well as the interpersonal, organizational, systemic and cultural together affect the SRH of FMWs.

The socio- ecological framework:

The socio-ecological model (SEM) was first introduced to understand human development by Urie Bronfenbrenner in the1970s and later formalized as a theory (Kilanowski, 2017). It states five levels of influence on an individual, adding that the microsystem closest to the individual contains the strongest influences. The second level i.e. the mesosystem comprises those the individual has direct contact with such as work, and neighbourhood. While the exosystem does not directly impact the individual, it exerts forces on the individual by way of community contexts and social networks. Next, the macrosystem includes societal, religious, and cultural values and influences. Lastly, the chronosystem contains both internal and external elements of time and history, and includes policy creation (Kilanowski, 2017).

The socio- ecological model of health broadly focuses on multiple factors that might affect health and in turn get affected by the interaction between the individual, family, community and the physical, social, and political environments (Sallis et al., 2008).

Due to the many contributors to human development that the model recognizes, it is widely used to represent multilevel approaches to areas such as in public health promotion, violence prevention, healthy college campuses, geriatric preventive health, and colorectal cancer prevention (Kilanowski, 2017).

REVIEW OF LITERATURE

Menstruation and menstrual hygiene management

Menstruation is defined by the UNICEF in their guidelines to monitor menstrual health and

hygiene as "the natural bodily process of releasing blood and associated matter from the uterus through the vagina as part of the menstrual cycle" (2020). Menstrual hygiene management or MHM is the process wherein "women and adolescent girls are using a clean menstrual management material to absorb or collect menstrual blood, that can be changed in privacy as often as necessary, using soap and water for washing the body as required, and having access to safe and convenient facilities to dispose of used menstrual management materials (WHO/ UNICEF Joint Monitoring Programme, 2012). Further, it also includes a thorough understanding about the basic facts linked to the menstrual cycle and managing it with dignity and without discomfort or fear."

MHM remains largely excluded from the general SRH discourse and related health services which otherwise include services on family planning, gender-based violence, sexually transmitted infections and reproductive cancers. (Wilson and Fry, 2016). However, it must be seen as an integral part of SRH as it deals with menstruation which is a critical indicator of reproduction an insufficient understanding of MHM and poor practices around it can contribute to reproductive tract and urinary infections (bacterial vaginosis and vulvovaginal candidiasis), thereby affecting the fertility of women and making them more prone to HIV infections. Infections such as Hepatitis B and Thrush are associated with a lack of WASH (water, sanitation and hygiene) facilities.

Maternal Health

The WHO defines maternal health as the "health of women during pregnancy, childbirth and the postnatal period"**.** It also includes skilled care services during pregnancy, childbirth, postpartum and new-born periods, thereby minimizing maternal, perinatal and new-born morbidity and mortality. Maternal health is integral to SRH as it involves the capability and decision of a woman to reproduce (UNFPA).

A WHO report of 2017 indicated that most number of maternal deaths take place in low-resource settings. Such deaths can be prevented if skilled care by professionals in a timely manner and a supportive environment is made accessible before, during and after childbirth to women (UNHCR). The most common direct causes of maternal injury and death include excessive blood loss, infection, high blood pressure, unsafe abortion, as well as indirect causes such as anaemia. Hence, women must have access to skilled and knowledgeable professionals who journeys with them during pregnancy and raises red flags whenever required.

Women in vulnerable situations such as migrants may have low levels of knowledge, unfavourable attitudes and poor practices towards the whole spectrum of maternal health and antenatal care i.e. care received from qualified health professionals during pregnancy. * A 2013 study by Kusuma et al. conducted in Delhi looked at migrant maternal health-seeking behaviour with respect to ante-natal care and institutional delivery. The results indicated only 49% of recent migrants had received the recommended 4 antenatal check-ups, as well as high percentage of home deliveries (53%).

Contraception, unwanted pregnancies and abortions.

Contraception as defined by Jain and Muralidhar (2011) in their study is the "planned prevention of conception through the use of various devices, sexual practices, chemicals, drugs, or surgical procedures". These methods enable couples to enjoy physical intimacy without fear of unwanted pregnancies while at the same time ensuring their freedom to plan for conception in a cost-effective manner with maximum comfort and discretion. Methods like condoms serve the

dual role of protection from sexually transmitted diseases (STDs). Methods of contraception include oral pills, intra uterine devices, condoms, implants, injectables,patches, vaginal rings, lactational amenorrhea methods, withdrawal, permanent methods such as male and female sterilization, and fertility awareness-based methods. These methods work on different mechanisms in preventing pregnancies if not intended. A systematic review to understand the progress made in meeting women's contraceptive needs at a global level conducted by Kantorova et al. (2020) found that almost 1.1 billion women out of the 1.9 billion women within the reproductive age group of 15-49 years globally have a need for family planning in 2019; of which around 270 million have an unmet need for contraception.

Women who have an unmet need for contraception are broadly defined as those who want to delay or stop childbearing but are not using contraception. In a report by Guttmacher Institute, Darroch et al. (2011) stated the reasons for non-usage of contraception as including concerns Women who have an unmet need for contraception are broadly defined as those who want to delay or stop childbearing but are not using contraception. In a report by Guttmacher Institute, Darroch et al. (2011) stated the reasons for non-usage of contraception as including concerns about health risks or side effects of the methods or devices; lack of knowledge about the methods of contraception or where they could be procured; opposition to use by the woman or her partner for personal, cultural or religious reasons; perception of not getting pregnant due to infrequent sex, postpartum amenorrhea, breastfeeding; and the inability to afford or access contraceptives.

There is a need to focus on unmet needs for contraception as many of these result in unintended pregnancies thereby leading to abortion as a mechanism to terminate the pregnancy. Further, individuals resort to unsafe methods and conditions of terminations in scenarios where abortions are

restricted, thereby resulting in their deaths or serious injuries from severe reproductive health consequences. Unintended pregnancies also pose a challenge to receiving antenatal care making it delayed or not availing services at all, resulting in health risks to both mothers and infants (Darroch et al., 2011).

METHODOLOGY

The article is based on a literature review done on the knowledge, attitude and practices of FMWs in the various domains of sexual and reproductive health. These include menstruation and menstrual hygiene management, maternal health, contraception, unwanted pregnancies and abortions. Following this, themes and observations were drawn from the field experiences and interactions of the authors based on two formal focus group discussions and other preliminary discussions with the FMWs, especially in the context of their work settings, culture of their home and host states and the existing healthcare system in the latter**.** Additionally, perspectives of healthcare workers (Accredited Social Health Activists or ASHA workers) were also sought, by virtue of their work with the migrant community.

These findings were then viewed from the perspective of a socioecological framework in an attempt to understand how factors at the various levels i.e. individual, interpersonal, organizational, systemic and cultural together shape the SRH of FMWs.

RESULTS

Observations and emerging issues from the field:

Menstruation and menstrual hygiene management

Field interactions as part of our ongoing research study indicated that most women were aged mostly between 20 - 45 years and had attained menarche between 11 and 13 years while living in their home states. With no prior knowledge, most women learnt about menstruation only when they attained menarche. The knowledge on menstruation they possess is largely limited to the understanding that they can now become pregnant ("badaa hogaya") from their significant others such as mothers, older sisters, sisters-in-law, peers and through observation of other women, contributing to their inadequate understanding of menstruation in the present too. Maulingin-Gumbaketi et al (2022) in their scoping review study also state that young women lacking comprehensive premenarchal knowledge about menstruation experienced fear, embarrassment, confusion at menarche, and lack of skills to effectively manage menstruation.

Partial understanding of menstruation among these women has a direct bearing on their menstrual hygiene and management practices. A large number of the FMWs whom we interacted with resort to old repurposed cloth as the main absorbent material on days that they menstruate, while some women use sanitary pads and a combination of the two depending on their day's work. This can be attributed to practices being followed at the home states of migrants, lack of awareness about other menstrual materials, and also the financial aspects (The World Bank, 2022).

Almost all FMWs interacted with mentioned that during work hours, they changed their menstrual material only during lunch breaks by returning to their places of stay, as they were

uncomfortable changing in their workplaces which lacked separate washrooms assigned for men and women and in some cases, proper latches or locks. These very often lacked privacy, hygiene products such as soap and also any means for disposal of sanitary/ menstrual material. While some places of accommodation were in the same compound as their workplace, other rooms were situated few metres away from the workplaces of these women. This many a times meant the women taking some extra time needed, which led to reduction from their wages in lieu of the extra time taken to return. This finding is supported by a World Bank report (2022), which states that women who lack suitable sanitation facilities in the workplace lose wages for days of work missed during menstruation and are seen as inconsistent.

Further, improper washing and drying of reusable material makes women prone to various reproductive tract infections. The women we interacted with washed their menstrual material and dried them in their rooms or in a manner that it is least exposed to other people. This is because they believed that exposing their material to others would hinder their ability to conceive, obstruct vision and also invite evil forces. As a result, it is not clear whether women sundried their reusable absorbent material which is considered ideal and most important from a health perspective to prevent infections. With regard to disposal, women stated disposing their menstrual cloths in a nearby water body or burying them, as preferred from a cultural perspective. Incineration of such waste was often associated with causing ill health. Women who used sanitary pads mentioned disposing them into their toilets or throwing them with other waste items. These methods of disposal have several implications for the environment from polluting water bodies to flooding of local drainage systems.

Maternal Health

In our interactions with FMWs on maternal health, it was learnt that a large majority of them were in the reproductive years i.e. 15-49 years and had one or more children. Their knowledge of the danger signs during pregnancy was limited to heavy bleeding and severe abdominal pain. It was reported by all healthcare workers providing antenatal care support (Accredited Social Health Activist or ASHA) whom we interviewed that while there has been an increase in the awareness and uptake levels of antenatal care among migrants with regular follow ups done by the former, it is equally challenging in situations where migrants keep shifting their place of stay. Frequent change in accommodation was noted as a common characteristic of migrants due to which it was difficult to continually follow up with them to provide adequate and timely medical care.FMWs we met were keen on receiving antenatal care as they perceived the services being beneficial to their health and for that of their children. Women who had stayed in the particular areas for a longer duration seemed more convinced about the benefits of antenatal care and also showed trust in the healthcare workers in the field (ASHA). Those who did not seek antenatal care were women who were relatively recent migrants and had low levels of awareness. Spouses and peers also played a role in the FMWs using antenatal care services by influencing the decisions of and sharing of their experiences respectively.

It was reported by healthcare workers that these women mostly worked throughout their pregnancies until a point when they reached close to their due dates or in cases where they were advised rest. Postpartum, they resumed household responsibilities almost immediately in the absence of any external support while also caring for their newborns. Many migrant women had institutional deliveries in the host state in hospitals, while a few cases of women who had home

deliveries were reported, due to the traditional practice of home deliveries in their states. Those who chose institutional delivery mentioned quality medical care as the reason for their choice. Upon interactions with women on their preference for home deliveries, many stated that they feared being 'operated on' at hospitals which they believed was inevitable in case of hospital deliveries, referring to c- sections and episiotomies. Women who had recently migrated to the state as well as their older counterparts who have lived here for many years mostly reported having home deliveries in the past- a practice that is the norm in their villages. Another group of women who received antenatal care services in the host state travelled back to their villages for delivery where they would have the presence of their family members for support. The critical role of spouses and peers in women opting for institutional deliveries also shaped the behaviours of FMWs wherein husbands and peers accompanied the women for antenatal care.

Postpartum care by healthcare workers included regular visits and follow ups to the migrant workers, assistance with breastfeeding for the mothers and providing information to the women on prevention of pregnancies on an immediate basis and related methods. It was learnt that in most cases, the FMWs did not use the contraceptive methods provided by healthcare providers. Discussions around family planning methods were minimal and often received with shyness and hesitance by FMWs.

Contraception, unwanted pregnancies and abortions

Field interactions with FMWs helped us understand about their usage of contraceptives by shedding light on their knowledge levels, attitude and practices in this area. It was learnt that women largely were unaware about the various contraceptive methods available. Their source of information on contraception included spouses, informal discussions among peers, mass media and also their healthcare providers.

Few women, especially those in the older age group reported to having undergone permanent methods to stop pregnancies as they already had the desired number of children. Another method that they used included oral pills. Among the younger women, the topic of contraception evoked feelings of discomfort and shyness to talk. Overall, it was noted that these women have very low levels of awareness and usage of contraception. Women informed that their male partners were the main decision makers regarding the usage or non-usage of contraceptives. Condoms seemed to be the method several women had heard of but knew little about from experience. These were available in the local health centres but healthcare workers stated less demand for them as well as other relatively long- term methods such as IUD, despite the awareness they provided to the FMWs.

We observed some instances where women that had infants of few months were pregnant again. Hence, non-usage or low usage and awareness of contraceptive methods led to closely spaced and unwanted pregnancies among these women. According to an article by the Mayo clinic in 2022, some of the risks associated with closely spaced pregnancies are premature birth, low birth weight, placental abruption, congenital disorders and anaemia in mothers. While some of the pregnancies among the migrant women progress normally, women we spoke to also shared with us instances of their unwanted pregnancies. In such cases, women resorted to usage of a type of oral pills that induced abortions- a practice confirmed by many women in the migrant community and in an

unsupervised manner; consuming these pills was a common practice among these women for inducing abortions. These pills we learnt, were commonly available in their native states and brought in by their peers travelling back from their villages as these were not readily available in the local medical shops.

DISCUSSION

Analysing the SRH domains through a socio- ecological lens:

A socio-ecological perspective is adopted to assess each domain of SRH in the following section. The many factors that exist at each level apart from the individual ones, when taken into consideration, can contribute to a better understanding on the factors that shape the SRH (knowledge, attitude and practices) of FMWs.

Menstruation and MHM

From a socio- ecological lens, FMWs' own education and knowledge levels, their awareness, practices and ideologies shaped by those in their home states around menstruation and MHM - these can be seen as individual factors that affect these women's' own experiences of managing their menstruation effectively. Health issues related to menstruation such as persistent abdominal pain and heavy bleeding were treated by over the counter medicines, often procured by their spouses, without much understanding of the discomfort being experienced (Regional Health-Americas, 2022). This is an indicator of how interpersonal relations has a bearing on women's health. Greater involvement of spouses may lead to positive health outcomes for women.

At an organizational level, lack of WASH facilities can be seen as preventing these women from optimally managing their menstruation due to issues ranging from lack of privacy, hygiene products, menstrual material as well as means of disposal, thereby resulting in SRH issues.

Earning their livelihoods remain the highest priority for these women who hail from socio-economically backward communities and states. Health issues such as those related to their menstruation and other aspects of SRH often are ignored by these women until it needs urgent medical attention in their sector of work which is highly male dominated. Despite health issues related due to menstruation such as abdominal pain, heavy bleeding, and non-health issues related to MHM such as lack of necessary infrastructure, women do not miss work due to the financial implications involved. At a cultural and societal level, despite menstruation being biologically normal for women, the experience of menstruators is often dominated and limited by cultural taboos surrounding menstruation. The resulting lack of information and misinformation about menstruation leads to unhygienic and unhealthy menstrual practices and creates misconceptions and negative attitudes around the process which can affect the overall health and well- being of these women. Finally, at a policy level, there remains a lack of proper implementation of guidelines for vulnerable women such as FMWs who possess minimal negotiation powers and skills, unlike what is seen in the organized sector.

Maternal health

From an individual level in a socio ecological perspective, the age, religious beliefs, educational attainment, marital status, income level and duration of stay in the host state are all factors that play a huge role in determining the maternal health behaviours of FMWs.

The role of spouses and peers can act as protective or barrier factors in migrant women's maternal health. While some husbands proactively encouraged and accompanied their wives for antenatal check-ups and institutional delivery, there were others who had a stronger inclination towards home deliveries. Peers accompanying women

to check-ups and also sharing information with them on their experiences can also facilitate positive maternal health outcomes for the migrant women workers.

The role played by the employer, the place of employment and nature of work of the FMWs can also play a key role in determining their maternal health from an organizational level. An employer who provides a conducive environment for the women by easing their workload and allowing breaks can enable women to experience positive maternal outcomes. Additionally, permitting medical visits and check- ups also can act as protective factors. Conversely, long working hours in poor conditions and reduction of wages for doctor visits can act as deterrents for women from seeking the prescribed medical care during their pregnancy.

The role of ASHA workers and healthcare providers also is crucial in determining the uptake of maternal health services by the migrant women workers. Providing relevant and necessary information in a timely manner and regular follow ups with the female migrants at a time suitable for the latter act as enablers for FMWs to seek maternal health services.

The ease of navigating the healthcare system also plays a great role in determining the maternal healthcare utilization among the migrant women. A perception among them about the procedures and formalities can be overwhelming and can either encourage/ deter them from taking up the required services. To this can also be added the language barrier experienced by the women in the absence of a mediator along with the unwelcoming and patronizing attitude of the staff at the healthcare institutions.

At the cultural level, traditional practices such as preference for home deliveries which may be followed in the home state of migrants may influence their decisions on opting for delivery outside hospital settings.

At the policy level, FMWs who form part of the unorganized sector do not gain in any way from legislations such as the maternity benefit act which is considered a great piece of legislation to support working women by allowing for maternity leaves for women for childbirth and provision of day-cares for their children. The act leaves out organizations employing less than 10 women, thus also excluding them from the very essential and necessary maternity related benefits needed and rendering them invisible (Narang, 2022).

Contraception, unwanted pregnancies and abortion

At an individual level, the age, education levels, marital status, religion, knowledge and awareness, and the socio- economic backgrounds of FMWs determined their knowledge, attitude and practices in the area of contraception. Women with less education and low levels of awareness in most cases did not use contraceptive methods. Their religious beliefs also had a bearing on their contraceptive usage behaviours.

The role of spouses in influencing or deciding the usage or non-usage of contraceptives impacted the practices of women in this domain. Peer groups influenced women's behaviour who sought abortions in case an unwanted pregnancy occurs. These can be seen as influences at an interpersonal level.

The favourable attitude of an employer in terms of providing job security for the migrant workers also has implications for women's usage of contraception. In cases where earning livelihoods is a priority and pregnancy may pose a threat, women may resort to contraceptive usage.

At the level of the healthcare system, low rates of usage of contraceptive methods among migrant women may exist despite awareness and provision of services given by healthcare providers. This may be attributed

to the role that cultural acceptance of such methods plays in the contraceptive use behaviours of these women. Resultantly, unwanted pregnancies may occur. Further, in the absence of provision of safe abortion services except on certain pre-established groups by healthcare systems, women resort to other means to induce abortions that are more popular in their respective cultural contexts and that may not be deemed safe from a medical perspective. Here we see how the systemic as well as cultural levels affect and are affected by other.

At the policy level, presuming the application of a single health policy for all sections of the populations without proper understanding of specific cultural contexts can lead to failure of policies at an implementation level.

LIMITATIONS

The study only focusses on migrant women who are working in the unorganized sector to understand their unique concerns in the particular domains of SRH and to understand the concerns better from a socio- ecological lens. Including non-working migrant women of the community may provide a deeper understanding of whether they have similar concerns.

Also, the paper is based on the issues and themes that emerged out of two formal focus group discussions and other preliminary discussions with groups of married FMWs. Including a greater number of women and especially those who are unmarried may reveal more factors at the different levels of the framework.

CONCLUSION

This paper aimed at gaining an understanding of the emerging issues from the field related to the knowledge, attitude and practices on certain domains of SRH namely menstruation and MHM, maternal health and contraception, unwanted pregnancies and abortions.

Thus, it can be stated that viewing SRH of female migrant workers merely at an individual level as may prove to be ineffective. Understanding the wide gamut of factors that exist at each level and exert strong influences on their knowledge, attitude and practices can be helpful in designing interventions that are effective and suitable by addressing the specific factors at each level (Hazra et al., 2018).

Further, conducting assessments of FMWs to understand the array of factors that can positively affect their usage of services related to SRH will ensure effectiveness and quality of services, instead of using a strait jacket approach towards them. Such a comprehensive understanding can enable the extending of relevant services that maintain the delicate balance of being culturally sensitive while adequately satisfying the prescribed medical standards.

REFERENCES

Anuja. (2022, March 10). T. Lee (Ed). Staying Behind: Out of cities and work, India's women migrant workers struggle to rebuild their lives. Unbias the news. https://unbiasthenews.org/india-women-migrant-workers-struggle-to-rebuild-their-lives/

Betterhealth Channel. Women's sexual and reproductive health. https://www.betterhealth.vic.gov.au/campaigns/womens-sexual-and-reproductive-health

Carballo, M., Grocutt, M., & Hadzihasanovic, A. (1996). Women and migration: a public health issue. *World health statistics quarterly. Rapport trimestriel de statistiques sanitaires mondiales*, *49*(2), 158–164.

Darroch, J.E., Sedgh, G. & Ball, H. (2011). *Contraceptive Technologies: Responding to Women's Needs*.

Guttmacher Institute, New York

Hazra, A., Khan, M. E., & Mondal, S. K. (2018). Mobile Phone Messaging to Husbands India. *Journal of health communication*, *23*(6), 542–549. https://doi.org/10.1080/10810730.2018.1483444

Jain, R., & Muralidhar, S. (2011). Contraceptive methods: needs, options and utilization. *Journal of obstetrics and gynaecology of India*, *61*(6), 626–634. https://doi.org/10.1007/s13224-011-0107-7

Kanem**,** N. (2018, August). Sexual and Reproductive Health and Rights: The Cornerstone of Sustainable Development. *UN Chronicle 2*(LV).

Kantorová, V., Wheldon, M.C., Ueffing, P. & Dasgupta, A.N.Z. (2020) Estimating progress towards meeting women's contraceptive needs in 185 countries: A Bayesian hierarchical modelling study. *PLoS Med 17*(2). e1003026. https://doi.org/10.1371/journal.pmed.1003026

Kilanowski J. F., PhD Rn Aprn Cpnp Faan (2017). Breadth of the Socio-Ecological Model. *Journal of agromedicine*, *22*(4), 295–297. https://doi.org/10.1080/1059924X.2017.1358971

Kurien, A. Ed. (2012). *National Workshop on Internal Migration and Human Development in India: Workshop Compendium***.** UNESCO**:** New Delhi**.**

Lopamudra, R.S., Sharma, V., & Sarna, A. (2015). *Female migrants in India.* New Delhi: Population Council

Maulingin-Gumbaketi, E., Larkins, S., Whittaker, M., Rembeck, G., Gunnarsson, R., & Redman-MacLaren, M. (2022). Socio-cultural implications for women's menstrual health in the Pacific Island Countries and Territories (PICTs): a scoping review. *Reproductive health*, *19*(1), 128. https://doi.org/10.1186/s12978-022-01398-7

Mayo Clinic. (2022, December 2). Family planning: Get the facts about pregnancy spacing. https://www.mayoclinic.org/healthy-lifestyle/getting-pregnant/in-depth/family-planning/art-20044072

Narang, A. (2022, February 23). *How India's Maternity Benefits Are Not Helping Women In The Unorganised Sector.* Her Circle. https://www.hercircle.in/engage/wellness/reproductive-health/how-indiarsquos-maternity-benefits-are-not-helping-women-in-the-unorganised-sector-

Regional Health-Americas T. L. (2022). Menstrual health: a neglected public health problem. *Lancet regional health. Americas*, *15*, 100399. https://doi.org/10.1016/j.lana.2022.100399

Sallis, J. F., Owen, N., & Fisher, E. B. (2008). Ecological Models of Health Behavior. In K. Glanz, B. K. Rimer, & K. Viswanath (Eds.). *Health Behavior and Health Education: Theory, Research, and Practice.* (4th ed., pp. 465-486). San Francisco, CA: Jossey-Bass.

The World Bank (2022, May 12). Menstrual Health and Hygiene. https://www.worldbank.org/en/topic/water/brief/menstrual-health-and-htility. UN Department of Economic and Social Affairs. Sustainable Development Goals. https://sdgs.un.org/goals

UNHCR. Sexual and Reproductive Health: Providing quality sexual and reproductive health services to refugees and other persons forced to flee. https://www.unhcr.org/what-we-do/protect-human-rights/public-health/sexual-and-reproductive-

health.

UNICEF (2020) Phil. P (Ed). *Guidance for Monitoring Menstrual Health and Hygiene*. New York.United Nations. Migration. https:// www.un.org/en/global-issues/ migration

United Nations Population Fund (2022). Sexual and Reproductive Health. https:// www.unfpa.org/sexual-reproductive-health Wilson, L. & Fry, S. (2016, May 25). The Importance of Menstrual Hygiene Management for Sexual and Reproductive Health. Medium. https:/ /medium.com/@wilsonlucyc/the-importance-of-menstrual-hygiene-management-for-sexual-and-reproductive-health-313d1fc4c45

World Health Organization (2023). Maternal Health. https://www.who.int/health-topics/maternal-health#tab=tab_1

World Health Organization (2023). Maternal Health in the South- East Asia. https:/ /www.who.int/southeastasia/health-topics/maternal-health

World Health Organization (2023). Maternal and reproductive health. https:// www.who.int/data/gho/data/themes/ maternal-and-reproductive-health

Acknowledgement: The authors express their gratitude to University Grants Commission (UGC) for the funding provided towards the study under the JRF scheme. They also acknowledge the support of the National Health Mission, Ernakulam, extended towards this study.

Conflict of interest: None

Role of funding source: None