ABSTRACT: Since the turn of the 21st century, water, sanitation, and hygiene (WASH) have been a growing priority in the international development paradigm. This study intends to investigate expecting and new mothers’ experiences in accessing WASH and the long-term effects on their socioeconomic and psychosocial development. It also aims to comprehend the gendered dimension of WASH. The Inequality Approach by Amartya Sen was used as the theoretical framework to assess the study’s findings. Purposive sampling was used to choose respondents, and in-depth interviews were done to collect data. According to the findings, expecting and new mothers who are also academics or professionals suffer a slew of issues owing to poor WASH and which impacts their education, job, and mobility. However, they used to cope with the vulnerabilities in order to continue with their regular activities. Similarly, WASH is more than simply a structural issue; it has several overlapping variables that impede pregnant and new mothers’ development. As a result, policy execution and sound structural design, along with a gender perspective, are essential to improve WASH facilities for pregnant and new mothers in all social institutions.

KEYWORDS: WASH, Gender, Empowerment, Education, Employment, Motherhood, Reproductive Health.

INTRODUCTION
WASH is considered a critical public health concern in the international development sector during 21st century (Unicef, 2014). The SDGs prioritize poverty alleviation, gender equality, and child and maternal health, with a critical priority on fair and universal access to water, sanitation, and hygiene. However, SDG 06: Clean water and sanitation, on the other hand, aims to guarantee adequate and equal access to water and sanitation (UN, 2019). As a result, expanding access to WASH services can lead to a healthier lifestyle, a better education, and a higher quality of life. Water and sanitation are both essential for good health and contribute to sustainable livelihoods, education, employment, socioeconomic status, and dignity, as well as assisting in the development of resilient communities in healthy environments (Sida, 2019). Similarly, one of the critical areas that require appropriate and accessible clean water and sanitation facilities is women’s reproductive health (CARE Canada, 2017). Women, in particular, require intense cleaning and hygiene care during pregnancy and after. However, access to adequate water and sanitation is a vital factor that has a significant influence on women’s reproductive health. Pregnant women and new moms, in particular, have distinct experiences, obstacles, and negotiations when it comes to obtaining WASH, which affects their education and employment. As a result, how women perceive their pregnancy or postpartum period in terms of access to WASH facilities is an emerging topic of inquiry. WASH is not just important in the health sector for expecting or new moms; it also has long-term repercussions in their socioeconomic lives. According to research, women’s education, menstrual hygiene, economic empowerment, psychological condition, and so on are all closely related to their access to WASH facilities (Jansz and Wilbur, 2013). This study investigates expecting and new mothers’ experiences accessing WASH, highlighting their problems and coping methods in the academic and professional domains.

WASH and women from Gender nexus
A safe drinking water supply and a long-term sanitation system are essential for a healthy and prosperous existence. Nonetheless, over one billion people in developing countries lack access to adequate drinking water. Furthermore, more than three billion people lack access to sustainable and appropriate sanitation facilities (Gleick, 1999). According to a 2015 UN World Water report, three out of ten people (2.1 billion) did not have clean drinking water, and 4.5 billion (six out of ten) did not have sufficient sanitation facilities. Moreover, the existing WASH infrastructure in Bangladesh is not gender-neutral. Gender equality and WASH are inextricably linked. Women will also have a greater chance of improving their health and socioeconomic status if gender equality and women’s empowerment are integrated into accessible WASH programs and policies (Crago, 2019).
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Due to biological and cultural factors, women are disproportionately affected by a lack of access to WASH (Campbell et al., 2015). In nations with poor access to health information and primary healthcare and insufficient access to sustainable WASH services, maternal mortality rates are high. Women are expected to manage domestic water services due to conventional gender roles. They often do not have adequate WASH facilities in both their homes and other institutions. Women require reliable water and sanitation services throughout their reproductive lives. Menstruation, pregnancy, and postpartum women, in particular, need sufficient sanitation and hygiene facilities for their health and social development. Improving WASH access and giving essentials to expectant and new moms will help them have a better parenthood journey (Jansz and Wilbur, 2013). WASH is often seen as an infrastructural issue apart from the purview of health care. Lack of policy integration is a hindrance to incorporating WASH into development efforts. WASH and reproductive, maternity, neonatal, and child health (RMNCH) are intimately connected, implying that SDG3: Good health and well-being and SDG6: Clean Water and Sanitation of the 2030 Agenda for Sustainable Development are inherently intertwined. Without access to water and basic hygiene, advances toward lowering maternal mortality can only go so far (Crago, 2013).

In Sub-Saharan Africa, hookworms infect 20-30% of pregnant women who drink polluted water. Furthermore, maternal health is jeopardized due to a lack of cleanliness. Women bear the majority of the burden of collecting water in Africa, yet they do not receive enough water allocation. Furthermore, they used to spend a significant amount of time each day controlling water. Without clean, accessible water and sanitation, women are more likely to suffer a variety of obstacles, including poor health, hunger, and a lack of educational and career possibilities (UN, 2019). Water influences livelihoods and, in some circumstances, survival throughout the South Asian area. India alone accounts for 90% of South Asia’s population. For instance, in many regions of India, women must go considerable distances to bring water, which takes time and provides a barrier to their education and work (UNICEF India, 2022). Furthermore, a shortage of WASH facilities was responsible for 11% of maternal mortality. Recently, our neighboring nation, India, developed a hybrid WASH framework by evaluating various development frameworks like Moser, POP, CVA, and so on, which contain gender balance and encourage women’s empowerment (UNICEF India, 2022). Gender perspectives in WASH include how men and women interact and experience this socially mediated development paradigm. Therefore, understanding gender equality in terms of power and male-female hierarchies is critical. Because women’s accessibility, mobility, authority, and so on are intimately connected to gender relations. Gender disparities have significant ramifications in the WASH domain. As a response, the development framework aims to integrate men and women in such initiatives. Because WASH is a new and pressing concern in the international development sector, India has proposed a hybrid framework that includes a gender-centric approach aimed at reducing inequities women experience in WASH (Lala et al., 2014). Bangladesh is one of the South Asian countries that has made great progress toward universal access to water and sanitation (special attention on women and girls). Several non-governmental organizations (NGOs) have implemented policies and programmes to provide long-term WASH facilities in health care, families, and schools. Bangladesh has already met MDG objective 5, which calls for a decrease in maternal mortality. Adequate WASH services are required for improved maternal health. Furthermore, Bangladesh has adopted a strategy that prioritizes women’s reproductive health and socioeconomic development in WASH (Livani and Ahmed, 2021).

Although Bangladesh has improved WASH facilities that decrease poverty and illnesses, promote maternal health safety, and develop the socioeconomic situation, this sector still faces numerous obstacles and loopholes. Most WASH services in Bangladesh are not gender-responsive, and policymakers are unaware of women’s disparities and diverse requirements in obtaining clean water, sanitation, and hygiene. Girls and women in their reproductive years (pregnancy and postpartum) are more vulnerable due to a lack of sufficient and accessible WASH services. Furthermore, inadequate WASH facilities restrict their involvement in school, work, and other economic activities. Women are rarely questioned about their particular requirements, and their experiences are rare. Despite the fact that Bangladesh has met several MDG5 targets and also positively growing is on its way to SDGs, the WASH sector is not gender-inclusive (Akhter, 2018).

METHODOLOGY

This study conforms to the philosophy of Feminist Standpoint Theory, which relies on the ontological assumption that there is no single objective truth. It acknowledges the multifaceted experiences of expecting and new mothers’ access to WASH facilities as genuine in their settings and knowledge of lived experiences that is incorporated into feminist perspective theory (Harding, 1986). A qualitative research approach was used in this study since the epistemological standpoint of the research questions requires in-depth analysis to explain the research topic and objectives for a logical solution as it focuses on the firm perception that there is no objective and static reality or truth (Sarantakos, 2005). Through purposive sampling, suitable respondents were asked to participate in the study as per the following criteria:

1. University students who have at least one kid or are pregnant throughout the course of their studies.
2. Formal sectors Employee (New mother or Pregnant).

A total of 25 women interviewed were expecting and had one to two children. According to the study’s inclusion criteria, 17 university students and 8 office workers had given birth to at least one infant. These ladies were between the ages of 18 and 30 and
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had been married for two to ten years. Five of these participants lived with their extended family (four with their husband's family), while others lived independently. Their responses described their experiences with water, sanitation, and hygiene in their surroundings, which affected their education, employment, and mobility. Respondents were initially sent an email with a brief overview of the research topic, participant information and a permission form. If they matched the selection criteria and were interested in participating, an interview time that was convenient for them was scheduled. The existing literature review guided the interview tools, indicating areas in which new mothers felt most challenged regarding WASH. For instance, addressing gender factors can result in a woman-friendly environment in Sanitation and hygiene and achieve sustainable development by embracing human well-being (Sida, 2019).

A semi-structured interview was conducted, and a thematic framework was developed to guide the interview process and represent the respondent's experiences with the topic. This interview category was chosen because it allows the examination of spontaneous concerns raised by the respondent. Furthermore, it facilitates the collection of comprehensive data in a systematic manner. A combination of structured and open-ended questions enables increasing unanticipated responses. Purposive sampling helped as a selective and subjective sort of sampling that aids in determining the targeted population as required by the study purpose. Since this study was conducted by a specific group of people depending on the research objective, purposive sampling is the best method of gathering data in this qualitative study. The respondents gave their ethical consent to participate in this study. Overall, Anonymity, confidentiality, voluntary involvement, and data security have all been guaranteed.

Women and WASH through Inequality Approach By Amartya Sen

According to Nobel Laureate and Indian economist Amartya Sen (1991), culturally and historically, gender is a function of power relations and social organisation of inequality. And gender inequality is not a homogenous phenomenon. Rather it is interlinked with class, race, and ethnicity. Therefore, Sen stated, "Gender inequality is not one problem; it's a collection of problems." Inequality between men and women takes various forms in a different contexts. But in most parts of the world, women are victims of gender inequality. This nobel scholar also identified seven levels of inequality for women. These are mortality, natality, fundamental need, special need, household, professional, and ownership inequality (Mahtab, 2012).

Sen's first level of women's inequality is mortality inequality, which depicts maternal mortality as the leading cause of death for women in most developing countries. However, maternal mortality is a broader issue for which numerous variables are to blame solely. The underlying causes of maternal illness and death are a lack of nutritious food, and health services, insufficient water supply, unsustainable Sanitation, and a lack of cleanliness and hygiene during pregnancy and childbirth. Consequently, unequal access to WASH has an impact on maternal health, which is a crucial component in understanding the current disparities in maternal mortality. However, it is evident that access to and sustainability of water, Sanitation, and hygiene are interrelated determinants influencing women's mortality disparities (Carrad, 2022). Therefore, this approach can assist in analysing existing inequality that makes it difficult for women to access WASH equitably. Another type of inequality is basic facility inequality, which describes how women are deprived of necessities such as healthy food, clean water, and healthcare. Finally, professional inequality reflects women's impediments to employment due to reproductive duties. As a result, these four levels of inequality are closely related to the research objectives and findings, which may be used to examine pregnant and new mothers' experiences, problems, and coping strategies for WASH insufficiency and its multilayered repercussions. In 2010, the United Nations proclaimed water and sanitation access a fundamental human right.

Furthermore, accessible and equitable WASH amenities are a primary target of the SDG, with women and girls given priority since they have a diverse and acute demand for WASH due to their social and reproductive roles (Unicef, 2018). Nevertheless, women have inadequate access to water and Sanitation in all contexts, compromising their reproductive health and socioeconomic advancement. Moreover, the insufficiency of WASH for expecting and new mothers, in particular, causes severe suffering. Therefore, applying Sen's inequality method, it is possible to see that uneven access to WASH leads to many inequalities, ranging from basic facility disparities to professional sector inequalities of women.

FINDINGS

The 25 women interviewed had between one to two children and pregnant, and as per the requirement for inclusion in the study. Those women were aged between 18 to 30 and had been married for two to ten years. Their responses to the ways in which they explained their experiences regarding water, sanitation, and hygiene around their surroundings that might affect their education, employment, and mobility help understand importance and validity of the research.

Bearing the Burden: pregnant women and new mothers' experience of WASH facilities

Women's reproductive health is inevitably connected to WASH. The foremost demand for accessible WASH rises during pregnancy and the postpartum period, yet there is a lack of women-friendly condition of existing hygiene infrastructure and practices, including adequate water supply or not the infrastructure are actually functioning or benefits of some hygiene practices. Expectant and new mothers currently engaged in academic activities or the job sector face more vulnerability because it is found that most social
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Institutions like public universities or offices do not adequately address WASH concerns. 25 respondents identified WASH as a vital requirement for their reproductive age. Pregnant women usually cannot use unhygienic public toilets. So, during this period, the availability of proper water and sanitation system becomes the utmost need closely connected to their health and other social development. They have to bear physical obstacles and psychological pressure due to inadequate WASH which not only affects their reproductive health but also hinders their education and employment.

One of the respondents, a university student who has recently become a mother, said:
“I need to go to the washroom more frequently during pregnancy than before but did not have a female toilet on that floor. It was quite problematic and traumatic situation to use far-going toilets and continue offline classes.”

Clean WASH influence: Psycho-social dilemma of new mothers

The most common and existing structure of public institutions’ water, sanitation, and hygiene sector does not integrate women's specific need for water and sanitation during their reproductive life cycle. When a pregnant woman has to go out for her education or employment, but at the same time those institutions do not provide women-friendly WASH facilities, that becomes a trauma for them. Even the respondents said they always remain in a dilemma about whether to give a break from their semester or job during pregnancy just because of the unavailability of adequate water and sanitation service. Accessible WASH go beyond the boundary of health issues. Lack of female-friendly WASH facilities create psychological pressure that affect social wellbeing too.

One of the respondents, who is an employee and new mother, said:
“Sometimes, I thought of resigning from my job because I was exhausted from using the unclean toilet regularly. But simultaneously, I had to remember what I would do if I lost my job.”

Inclusive WASH amenities matter on Mobility

Opportunities for learning and earning are lost when expectant, and new mothers do not get sustainable WASH services, an emergent demand for that period. It affects their attendance and regular participation in education and job. The additional biological burden of women, like menstruation and pregnancy, requires an accessible water supply, a sustainable sanitation system, and proper hygiene management. Seventeen respondents said they are disinclined to use dirty toilets, insufficient water supply, and lack of privacy, affecting their movement. Maintaining maternal hygiene in public places with no safe toilet and adequate water supply is challenging.

A respondent, who is pregnant and a university student, said:
I feel more thirsty than before and need to go to the toilet several times. I could not use low commod due to personal health issues. Finding no other way I drink little water during class, that affect my health and also cannot attend class regularly.”

Understanding the Gendered dimension of WASH

Men and women differently experience WASH facilities. Here gender is an important category of analysis through which gender relations and the position of women in terms of WASH can be understood. Without addressing and recognizing the underlying gender dimension in WASH policies, transformation in the WASH development sector is impossible. Gender-responsive WASH facilities are important for both men and women. But it is found that women disproportionately suffer due to the inadequacy of WASH. As historically and culturally, women have integrated relationships with water. The low participation of men in hygiene intercession limits the translation of messages conceded mostly through women into practices due to the lack of physical enabling environment that is supposed to be provided and supported by men as head of households. In addition, men are less inconvenienced by the lack of hygiene at a household.

One of the respondents said:
“I need to go to toilet frequently during my pregnancy but we have one toilet in our house. Sometimes going to the washroom in front of in-laws become embarrassing. Actually, using the toilet in front of men is awkward.”

Lack of female-friendly WASH services

Studies show that the WASH sector in Bangladesh is still weak in addressing gender issues fully. Many documents, policies, and projects target improving women's reproductive health in terms of water, sanitation, and hygiene facilities. There is a lack of addressing gender-specific techniques, facilities, and women's specific needs, including menstrual hygiene management and water demand during pregnancy and childbirth in sanitation programs. Respondents said they do not have a women-friendly sanitation system in their institutions where they can get their specific WASH-related service during pregnancy or postpartum. Although they have availability of sanitation facilities, this cannot cover their particular need. Some pregnant respondents said they face very much trouble using unhygienic and congested lavatory. Public or institutional toilets often ignore women's particular water and sanitation need, and they do not consider this issue while designing and implementing WASH-related construction.

A respondent said:
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I have an available sanitation system in my academy, but these were not usable for me when I was pregnant. The toilets were so congested, and the water supply was not adequate. Moreover, there were rarely soaps to clean after the toilet. However, we have a sanitation system that is worthless to meet pregnant women’s needs in the true sense.

WASH Scarcity, Negotiations, and Coping Strategies

Women's health wellbeing and their socioeconomic development, including education, employment, empowerment, and Mobility, depend on sustainable management of WASH. Men and women have different roles and demands for WASH. Additionally, women have intensified need for water, sanitation, and hygiene due to their biological and social roles. Therefore, the adequacy and availability of WASH have great importance and contain long-term effects on women’s reproductive and social lives. As our social condition does not fully provide women's tangible need for water, sanitation, and hygiene service, women often try to cope with their existing situation or negotiate. Socioeconomic disadvantages like dropping out from education, disempowerment, loss of economic development etc., often occur when women face barriers in accessing WASH during their specific reproductive period. Respondents also said that they have to either cope with the existing situation or negotiate their opportunities.

One of the respondents who is a university student and pregnant, said:

I have decided to drop one semester because I am repeatedly affected by UTI (Unitary Track Infection). I need to drink more water and go for urination more frequently. But I cannot maintain water intake and sanitation because I do not have a proper water supply and sanitary facilities near my classroom. Finding no other way, I have to take a break from the semester.

DISCUSSION

Men and women have different experiences with water and sanitation. Compared to men, women's biological and social roles necessitate a high level of water, sanitation, and hygiene. Also, women are frequently subjected to uneven WASH facilities, and gender is not considered an essential category of analysis in WASH policies and initiatives. Women's special needs cannot be met unless the gender perspective is addressed. In terms of WASH, the existing gender disparity results in disadvantages and suffering for expecting and new mothers.

This study article found that most institutions and infrastructures do not provide sufficient WASH facilities for pregnant women. Furthermore, gender-responsive WASH policies are not implemented in practice. As a result, women face various problems, and this deficiency impacts their reproductive health and social and economic growth. Gender disparity is caused by the societal construction of stereotyped standards that prevent women from having equal access to practical and strategic gender needs. In this case, women are the worst victims of prejudice in all aspects of life, and women face inequities in attaining their basic needs, especially proper water and sanitation.

Amartya Sen's approach to women's inequality can be associated with the findings where respondents expressed their discriminatory access to water and sanitation, which led to maternal life discomfort. Additionally, this discrepancy generates multifaceted costs in accomplishing women's education, employment, and sustainable development. As a result, women's uneven access to WASH and its ramifications for parenting and socioeconomic life might represent Sen's inequality as well as sustainable development approaches. Accessible and equitable water provision is a part of basic gender needs that women are often deprived of, and when it leaves women behind in their education and employment, which refer to strategic gender needs. So, the lack of access to WASH is overlapped and is connected with women's practical gender needs as well as strategic gender needs. Moreover, for age-old traditional practices, women are expected to suppress their sufferings, and glorified motherhood is measured by the sacrifice women make. So, expectant and new mothers' WASH-related needs and struggles are not taken into consideration. Thus, the motherhood journey to access WASH is not smooth due to the existing gender-unequal context of our country.

In this study, it has been pursued that WASH has multilayered effects on women's lives and takes on various dimensions of the social and economic arena of pregnant women and new mothers. Their psychosocial tensions and socio-cultural haul are related to the accessibility of WASH to ensure an enabling environment. Nevertheless, it can be said that only physical well-being does not mean empowerment. Rather capability, decision-making, accessibility, mobility, freedom, agency, etc., need to be included for women's empowerment. WASH is such an element that incorporates women's health as well as their capability towards empowerment. Finally, WASH is a key determining factor that helps women improve their health and autonomy. Sometimes lack of WASH facilities results in the disempowerment of women.

CONCLUSION

WASH is still an ignored and underreported issue in Bangladesh. This study reveals a lack of awareness and understanding of addressing women's specific needs of WASH requirements. It demonstrates how a deficiency of gender-sensitive understanding about water, Sanitation, and hygiene keeps women behind in work and education. Furthermore, women confront several cultural and societal hurdles throughout pregnancy and postpartum, posing risks to their physical and mental wellbeing. Government policies and NGOs have taken multiple initiatives to ensure clean water, accessible Sanitation and hygiene for women. Yet, women's diversified and intense demand for WASH around their educational and other social institutions during pregnancy and postpartum
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had not come under broader policy. Moreover, WASH is essential for ensuring sustainable development that integrates a gender approach and emphasizes on women's specific needs. This study found how expecting and new mothers face crux in their access to water, Sanitation, and hygiene around their surroundings. This research has also traced women’s sufferings and struggles in education and work due to the insufficiency of WASH and its complex impacts on their social lives. Their struggle, coping strategies, sanity, and hurdles to maintain these periods have been explored through this study. In addition, findings exposed the inevitability of WASH which is not only a structural problem but an impulsive matter for pregnant women and new mothers. A significant SDG target is to ensure clean water and Sanitation, which implies extensive facilities for women and girls. Pregnancy and postpartum are the early stages of a woman's reproductive life when she needs extra hygiene and cleanliness. Unfortunately, most social institutions, like educational facilities, offices, and public areas, lack female-friendly WASH facilities. Therefore, due to the lack of WASH, pregnant women and new mothers face significant challenges. As a result, establishing sustainable and accessible WASH is critical for the physical as well social development of pregnant women and new mothers.

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