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# Status of Maternal Health: A Descriptive Study on Selected Garment Factories of Bangladesh

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Abstract: This study was conducted in 6 selected garment factories in Dhaka, Gazipur, Tangail and Savar city. The main objective of this study is to explore the present health status of pregnant women working in garment sector along with their health seeking behavior, nutritional status, and common diseases during pregnancy. A total of 228 pregnant garment workers were selected in this study by simple random sampling. Most (59.6%) of the respondents were in 15-24 years age group among them 15.8 % were in under twenties. Despite of increasing monthly household income the visible change on health status of pregnant women hasn't been seen. Only 20.2 percent pregnant women have taken one antenatal care by their 6 months of current pregnancy. Approximately, 96 percent delivery has done by normal vaginal delivery among which 84.2 percent delivery have conducted in home. Only 15.84 percent delivery has done in any institution. In order to identify nutritional status of pregnant women, blood hemoglobin level and mid upper arm circumference have used. In findings, 27.2 percent women have identified as muscle wasting by MUAC and 30.7 percent diagnosed as anemic by blood hemoglobin level. The significant positive correlation has seen between blood hemoglobin level and MUAC (r= 0.589) of 228 pregnant women. Long working period, work pressure, restraint and congested working environment, poor health facilities at garment's health center, lack of education, noxious living, lack of knowledge about health and health behavior etc. eventually lead morbid impact on health.

**Keywords:** Pregnant workers, Health seeking behavior of garment workers, Mid-upper arm circumference (MUAC).

**Research Area:** Public Health. **Paper Type:** Research Paper

#### **1. INTRODUCTION**

Bangladesh is a developing country of South Asia, has been passing 46 years after its independence. Though the economic background was agriculture but industrialization has been gradually taking that place. Amidst very clear thriving trend has seen on Readymade garments sector that contributing 82.1% foreign exchange in Bangladesh. It's been playing a vital role in creating employment opportunity for underprivileged and marginalized people of Bangladesh. Since late 1970's the garments sector has been expanding in Bangladesh. At present, according to BGMEA web portal 2015-16 data, 4328 garment industries has been running where approximately 4 millions of workers are working among them almost 3.20 million (80%) are women. Socio-culturally the status of women in Bangladesh is very vulnerable and low. They have been discriminated from all basic and fundamental rights of life. In this paper special emphasis has given to pregnant women in relating their nutritional status, health seeking behavior and how these health status being afflicted by their working condition.

#### 2. OBJECTIVES

- To investigate health care seeking behavior of pregnant women workers of garments sector including ANC, PNC, Delivery facilities, FP practices etc.
- To assess nutritional status of pregnant women by blood hemoglobin level and Midupper Arm Circumference (MUAC).
- To explore the common diseases pattern among pregnant women of garments whether its association with working environment.

#### **3. METHODOLOGY**

The selection of seven garments was purposively as a part of a medical program that have been assigned there to perform medical treatment only for those seven garment factories at Gazipur, Tangail, Savar and Ashulia of Dhaka District. This is a descriptive study that used both primary and secondary data. In this study, 228 pregnant women were selected by simple random sampling and interviewed to collect data regarding health status. A structured questionnaire with 32 items has been asked to the respondents. Then nutritional status was measured by Mid-upper arm circumference (MUAC) and blood hemoglobin level. MUAC of each woman was measured at the mid-point between the tip of the shoulder (Olecranon process) and the tip of the elbow (acromion process) of her left arm. Recently, published journals have evident that MUAC is a preferred anthropometric measurement during pregnancy. Therefore, wasting has used MUAC <23cm to define malnutrition. Moreover, body weight also been measured by weighing scale, since during pregnancy progressive growth of body weight is a physiological phenomenon so that it was not been considered as a determinant. Blood for hemoglobin level investigated in laboratory as a part of routine investigations of pregnant mothers. It was done in all factories as a medical program for garment workers. All pregnant women came at the service delivery point willingly to do all of the routine investigations including ultrasonography. Among them I picked up 228 workers by simple random sampling and preceded this study.

### 4. RESULTS AND DISCUSSION

Health is one of the fundamental rights for every worker which should be considered with highest priority along with safety issue. WHO defines, "Health is a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity". In this regard Bheda argued (2004) that most of the health problems that garment workers suffered arose from the occupational hazards including long working hours, absence of leave facilities, congested and overcrowded working conditions, absence of health facilities and safety measures, absence of staff amenities, lack of safe drinking water etc.

This study worked only with the pregnant mothers working in garments sector in terms of their health and health seeking behavior. Pregnancy is a very special and critical time for women where motherhood starts through pregnancy. Pregnancy demands special care and attention for mother and their offspring. Most of the female workers in garments mainly doing low-skilled jobs; like operator or helper where they have to work in a noxious environment like improper ventilation, crowded area, improper sitting arrangement or long time standing condition, lack of safe water supply, poor sanitation facilities etc. (Ahmed, S. & Raihan, Z; 2014). Moreover, there is no job security and female garments workers face an embargo on having babies.

In this study, the respondents were categorized into 3 age groups: 15-24 years, 25-34 years and 35-49 years. Out of 228 pregnant women, 59.6 percent belongs to 15-24 years age group in which 15.8% were under twenties representing adolescent fertility. 139 (60.9%) out

of 228 women were currently bearing their first child. Moreover, most (20%) of the parous women had their first child by 20 years of age. Keeping in mind the crisis of early marriage in Bangladesh, the question age at first marriage also included into the questionnaire. In findings, median age at first marriage was 17.7 years whereas according to BDHS 2014 it was 16.2 years.

According to study report of Shakila Matin (2009), the most tedious condition of work in the garment factories is the long working hours. On an average, a garment worker has to work for more than 12 hours a day. In addition working environment of garment factories is not congenial to ensure good health (Ahmed, S. & Raihan, Z; 2014). The working environment of garments is very confined where workers have to work from dawn to dusk. According to N Nahar, R N Ali and F Begum (2010), the work pattern in the garment factory severely affected workers health as they were restrained in a closed environment.

However, recently pregnant women are not allowed to do overtime moreover in some factories they are permitted for flexible or less strenuous job. But this picture isn't alike for all factories. There are also some factories where women have imposed embargo to get pregnant. This reluctant unethical approach towards female workers pushes their life towards more vulnerability. Most of the female workers don't know the importance of antenatal care during pregnancy. Even they don't have least knowledge about their own health and their child in womb as well. Only 20.2 percent pregnant women have taken one antenatal care within 6 months of their current pregnancy. In case of parous women who had experience of pregnancy, 19.8 percent had taken antenatal care. These two data shown in Fig. 1 that indicated overall situation hasn't been changed yet.

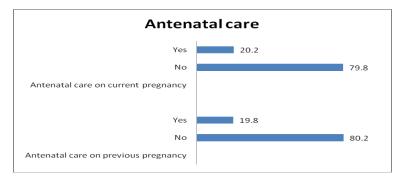


Figure 1: Distribution of respondents by antenatal care.

The respondents were stated many reasons of not having health check-up. Those were- they couldn't manage time for health check-up, they didn't have any problem, they didn't know where to go for health check-up, they didn't think it is important for health; husband's of them were completely unwilling for their regular health check-up as because of financial issue etc. Apropos need to focus the condition of medical center inside the garment premises. Majority garments have deployed few medical staffs because of external pressure from buyers. According to law, all health expenditure of workers like- medicines, investigation cost, hospital admission etc. must have to provide by garment owner. But in reality nothing provided by owner except wages (including overtime) of 112 days of maternity leave. No micro-nutrient supplementation has provided by the factory to pregnant mother. Female workers are living a very noxious life due to lack of knowledge regarding reproductive health. Education also an important factor of better health where less educated women have more likelihood to get affected by diseases. Out of 228 pregnant workers 86%

#### Status of Maternal Health: A Descriptive Study on Selected Garment Factories of Bangladesh

has attained primary level education following secondary 13.3% and higher secondary 0.7%. So it can be easily perceived that less education has associated with unhealthy behavior and lack of health knowledge. Moreover, in garments, health education is an important requirement from the government and buyer side. But practically it has been maintained only by paper. Therefore this large group of population remain unaware and living a sub-standard life despite of economic progress.

Most of the pregnant women are likely to go their native village during delivery. The rate of normal vaginal delivery is much higher among garment workers. Approximately 96 percent delivery has done by normal vaginal delivery among which 84.2 percent delivery have conducted in home without any skilled assistance. Only 15.8 percent delivery has done in health facility that shown in Fig. 2.

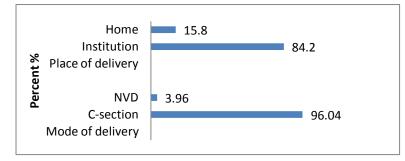


Figure 2: Distribution of respondents by mode and place of delivery.

During interview, maximum pregnant mother gave affirmative answer towards home delivery. No one had taken post-natal care among parous women willingly within 42 days following delivery unless any mishap happened. As per as the legal provision, every pregnant woman should get 112 days maternity leave (8 weeks prior expected delivery date and 8 weeks later). All wages have to be paid for maternity leave irrespective of how long she has been working there. But garment owners often take different scheming ideas to deny their payments. Some garments denied paying the second installment after coming back from leave. Again some owners forced the pregnant workers waiting for maternity leave to make resign from job thus owner denied to pay their legal payments.

In addition, majority of respondents (parous women) have reported bad obstetric history as because of their unawareness or sometimes due to exertion of work place. Table 1 demonstrated the bad obstetric outcome among parous women.

Bad obstetric outcome	Frequency	Percent	
Abortion/ miscarriage	38	42.5	
Neonatal death	17	19.1	
Still birth	11	12.5	
Infant death	9	9.7	
Intrauterine death	7	8.1	
Other (like eclampsia etc.)	7	8.1	
Total	89	100	

 Table 1: Bad obstetric outcome among parous women

The rate of miscarriage among garments workers is very high and most of them experience abortions more than once (5). In addition, 30.3 percent women had done MR once or more. These frequent MR indicates that the rate of unwanted pregnancy is much higher

### Status of Maternal Health: A Descriptive Study on Selected Garment Factories of Bangladesh

among the workers working in garments. Moreover, early marriage is very common among them so that they have to pass a long active reproductive life span. In this regard, data has collected about contraceptive prevalence rate (family planning method had been used for last 1 year before pregnancy) where 39.5 percent women practiced nothing and 6.1 percent had followed natural method. Oral contraceptive pill was highly prevalent; however, no permanent method had been used. The likelihood of using different contraceptive methods among women shown in Table 2.

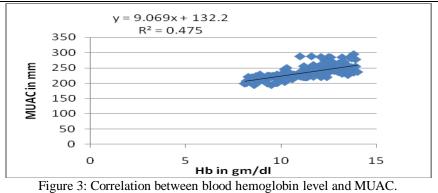
Family planning method (had been using last 1 years before	Frequency	Percent
pregnancy)		
Oral contraceptives	105	46.1
Nothing	90	39.5
Natural/ Calendar method	14	6.1
Injectable	11	4.8
Condom	6	2.6
Implant	2	0.9
Total	228	100

Table 2: Distribution of respondents by contraceptive prevalence rate (CPR).

Most of the respondents reported that they had been compelled to leave their infants at native village to their parents or in-laws house as because they didn't have anyone to take care of their child during office time. This statement flaunts the need of day care center at garment premises where mother can leave her child securely. This initiative, certainly, can increase the productivity of that mother, where she would be able to feed her child along with her work eventually can create psychological appeasement.

Nutritional status is an important indicator of maternal health. Anemia is one of the vital determinants of maternal nutrition. According to USAID Bangladesh- Nutrition profile, prevalence of anemia among women of reproductive age is 42% and prevalence of thinness among women of reproductive age (15-49 years) is 24%. In addition, the global prevalence of anemia for pregnant women was 38.2% and for all women of reproductive age was 29.4% (11). Long working period, strenuous workload, restraint working environment, less amenities of life, lack of empowerment in family, lack of knowledge, dearth of medical facility at garments health center, inadequate diet during pregnancy, less time of having lunch, poor food quality etc. related with malnutrition of pregnant workers. There are an ample evidence across the world that women autonomy, empowerment, education, gender equality conforming better health, improved living standard and promote overall a sustained socio-economic condition.

In findings, 62 out of 228 pregnant women were wasted that accounted 27.2 percent. Besides, 30.7 percent have diagnosed as anemic which has confirmed by blood hemoglobin level <11 gm/dl. Figure 1 shows a significant positive correlation between anemia and muscle wasting of 228 pregnant women. The value of Pearson's correlation coefficient was 0.598, which was significant (p 1.72665e-33). Therefore, there was a positive linear association between hemoglobin percentage and mid-upper arm circumference of pregnant women working at garments which shown in Fig. 3.



As because of insufficient medical services provided by the health center of garments pregnant workers were likely to go to pharmacy for health services. Though according to Bangladesh Labour Law 2015, every garment must have its own medical room or health center based on the number of workers. Doctors, nurses and other medical staffs should be employed on full time basis. The number of medical staffs should be proportional to the total number of workers at garments. Indoor facility should be there where every admitted patient will allow for free medication and food. But in reality most of the factory set a medical room, few medicines and one bed as per restriction of law and compliance issues. Doctors consultation, free medicine, free investigation facility, minor surgical facility inside the health center of garments, ante-natal and post natal care for pregnant mother, health education on reproductive health and family planning, safe drinking water and sanitation facility, maternity leave and other staff amenities, separate area for breast feeding, day care center for the children of workers especially female workers, milk and nutritious food for children in day care center etc. entitled to workers of garments as per labour law of Bangladesh.

Majority of respondents (40%) go to pharmacy for health services (Table 3). It was also observed that several initiatives have been taken by garments to provide better health facility to the workers.

Sources	Frequency	Percent
Pharmacy	91	40.0
Govt. Hospital	78	34.0
Non Govt. Hospital	28	12.3
Kabiraj	16	7.0
Homeopathy	14	6.3
No treatment	1	0.4
Total	228	100

Table 3: Distribution of respondents by healthcare facility.

Recently, many owners have been agreed upon the positive relationship between good health and productivity. Consequently, the maternity issues became flexible in many garments. Even though there were still a lot of flaws in improving the access of health to the pregnant workers that eventually create bad health outcome.

The monthly household income of 228 respondents is shown in Table 4 that represented clearly a rising trend of wages.

Status of Maternal Health: A Descriptive Study on Selected Garment Factories of Bangladesh

Monthly household income (Taka)	Frequency	Percent
<5000	0	0.0
5000-10000	5	2.2
10000-15000	36	15.8
15000-20000	156	68.4
>20000	31	13.6
Total	228	100

Table 4: Distribution of respondents by monthly household income.

Despite of increasing monthly household income the overall health status of garment workers doesn't differ largely from findings of previous literature about it. Most of the women complained physical weakness (79%) followed by headache and vertigo (40.9%). Again urinary tract infection (52.4%), per vaginal whitish discharge (32.4%), gastric pain (30%), low back pain (26%), common cold (12%) and allergic reaction (13.5%), gestational diabetes mellitus (0.9%), gestational hypertension (0.6%) and diarrhea (0.5%) are most prevalent diseases among pregnant workers. The likelihood of having diseases; mostly caused by lack of health education and noxious living including poor diet. Moreover, the number of respondents stated due to workload they didn't allow going to bathroom frequently which is itself an etiology of urinary tract infection. Similarly women were likely to have rot and stale food which created many health hazards such as gastric pain, diarrhea etc. per vaginal whitish discharge caused by lack of menstrual hygiene, one of the highly prevalent disease among pregnant workers. According to the labour law, a post named "social welfare officer" have deployed in almost all factories whose responsibilities are to take care of workers, help the pregnant women to avail maternity benefits, to provide regular health education regarding reproductive health, hygiene, family planning etc, to take care the children of day care center and their health. But practically, they have involved in different office work other than their assigned duty.

Since this descriptive study specifically explored to identify the health status of garments workers during pregnancy along with their health seeking behavior and nutritional status. Several topics were included in order to verify findings from different aspect. So far, majority findings reflected that living of workers hasn't been improved much in spite of increasing wages. Health outcome of workers is still in poor condition together with their position in society. In case of pregnant women, situation remains miserable in terms of their health and health seeking behavior. In this study, relationship between health status and health seeking behavior hasn't been shown statistically. Socio-economic condition, migration issue, working environment, education, nutritional status, health facility all together create an holistic impact upon overall health situation of pregnant women working in garments.

# 5. CONCLUSION

It is clear from this study that health access is very poor for the pregnant workers of garments. They are living a substandard and noxious life due to lack of knowledge about their health. Unhealthy behavior usually leads morbid impact on health that eventually creates a cycle of morbidity. For instance, a malnourished mother give birth a malnourished child. Still owners always try to fulfill their targets by any means. Thus, they only pay their attention on production whereas better health facilities to workers especially pregnant workers have been neglected. Moreover, many owners are violating the rights of worker for better health access by taking different scheming ideas. But inevitably in long run both owners and workers will

be affected. In my recommendation, owner should keep equal sensitive attention for their workers health and better living along with their production, because of productivity inextricably associated with better health. More attention should be given to make the workers educated regarding health and better living. Finally the health issue of pregnant workers should be highly prioritized in order to provide all medical facilities in terms of regular ante natal care, free medication and check-up, health education about pregnancy and reproductive health, free investigation facility, hospital service for delivery, post natal care, breast feeding facility, day care center, safe drinking water and allow pregnant mother to take rest following lunch. Government, factory owners, buyers, international labor organizations should work collectively to ensure a healthy life and better working condition for pregnant workers.

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