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Original Article

KNOWLEDGE AND PREVENTIVE PRACTICE OF URINARY TRACT INFECTION AMONG BANGLADESHI FEMALE READY-MADE GARMENTS WORKER

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Abstract:

Ready-made garments (RMG) are Bangladesh's largest export earner sector, with 800,000 workers, including two-thirds of females. Female RMG workers suffer from various illnesses, including urinary tract infections (UTI), but data is scars related it in Bangladesh. Therefore, the study aimed to evaluate the knowledge and preventive practice of UTI among female RMG workers. Method: This cross-section survey was conducted to evaluate the knowledge and preventive practice of UTI among female RMG workers. Using convenient sampling technique, we collected 351 data between February to April 2021 from two RMG. Data were analysed by using Statistical Package Social Science (SPSS) software version 23. Descriptive statistics was conducted using frequencies and proportions. Chi-square test was used to determine the association between dependent and independent variables. Linear regression and Pearson co-relation was used to determine the association between knowledge and practice. Results: Of 351 participants, 22% had good knowledge and 33% were in good practice. The study found a statistically significant correlation between knowledge level of UTI and participants' age, education, residence, family size, parents' education and occupation ($p<0.05$). Similarly, participants' education, marital status, residence, family size, parents' education and occupation were significantly correlated with practice level of female RMG workers towards UTI ($p<0.05$). Furthermore, participants who received health-related training had good knowledge and practice of UTI. Conclusion: Female RMG workers' sociodemographic variables were significantly correlated with their knowledge and practice of UTI. Training on health-related issues was significantly associated with good knowledge and practice of UTI. It's urgent to keep female RMG workers aware of health-related issues and easily accessible health care. EWMCJ Vol 12, No. 1&2, January-July 2024: P

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Garments workers; Urinary Tract Infection, Health; Disease; Bangladesh

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Introduction

Urinary tract infection (UTI) is one of the most common acute bacterial infections among women[1]. It includes the ureters, urinary bladder and urethra and is substantially more common in women than men, especially in those under 50 years old[1]. It is estimated that about 10-20% of women suffer from UTIs, especially during pregnancy[2]. The most common cause of UTIs is bacteria, especially gastrointestinal bacteria, that contaminate the rectum and spread to the bladder through the urethra[3]. A uterus sitting directly on top of a bladder can prevent urine from draining from the bladder, caused by its increased weight, as it grows[4]. In addition to the virulence of the bacteria, the host's susceptibility affects the severity of a UTI[5]. A study conducted among 18 to 45 years women found that 27.3% of them suffered from UTI in Iraq[6]. Another study conducted in the USA reported

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that participants with recurrent UTI (43.5%) displayed a higher level of activity impairment[7]. A study from France showed that 10.8 % of women over 18 years of age experience at least one UTI per year[8].

The garment industry, along with many other production sites, has enjoyed rapid feminization of work, specifically in countries in the south and south-east and Bangladesh is no exception[9]. The economy of Bangladesh is largely dependent on the Ready-Made Garments (RMG) sector has emerged as the biggest earner of foreign currency. Females are two-thirds of RMG workers in Bangladesh, according to the latest Bangladesh Bank's latest survey reports[10]. It is not surprising that dysuria (painful or difficult urination) is so prevalent among young female garment workers. UTI, vaginitis, urinary retention, and sexually transmitted conditions can lead to dysuria most prevalent among RMG worker[9,10]. Due to the number of female workers, illnesses such as UTI seriously impact productivity and overall economic growth[11]. We should remember the previous findings that RMG workers are a relatively young population, and the garment industry itself is so strenuous that only those in good health and physically and mentally resilient accept employment in this sector and continue to work there[9,11]. In the long term, untreated UTIs may reduce their employment tenure and threaten their job satisfaction. Therefore, UTI education may help women with recurrences to effectively manage their disease.

To date, a number of studies have been conducted in Bangladesh among RGM workers. However, no studies have been conducted in the country regarding UTI among female RMG workers, a group of researchers from Spain claimed that more than two-thirds of female workers complain about UTI[12]. As a result the study aimed to determine the level of knowledge and preventive practice towards UTI among female RMG Workers in Bangladesh.

Methods

Study design & procedure

The study was cross-sectional in nature. The survey was conducted at the two largest RMGs in Savar, Dhaka, Bangladesh from February to April 2021. Participants were RMG female workers. The eligible participantss were females over 18 years old who were employee in different RMG during survey and willingly participated in the study with giving written consent. We conducted a pilot study among 24 female RMG workers, after which the questionnaire was revised and finalized upon feedback. Recruiting was conducted daily among eligible individual who attended the factory. Data were collected via face-to-face interview using structured questionnaire. We gathered data regarding participants' socioeconomic demographic characteristics and knowledge and practice of UTI related information. Participants were identified through convenience sampling, and the sample size was determined by the cross-sectional study sample formula[13]. Participants were included by following formula: RMG female workers in Dhaka area and able to follow simple instruction and able to respond. Individuals were excluded who refused to give consent. Finally, we collected 351 data for analytical exploration for this study.

Variables

Dependent variables: The outcomes variables of this study were: knowledge of UTI and preventive practice on UTI. Knowledge level was measured by 10 knowledge specific questions highlighting the basic knowledge on urinary tract infection. Female garments workers those were able to get at least 60% marks in knowledge specific items considered as adequate knowledge level. Practice level was measured by 10 specific preventive practice items regarding urinary tract infection. Those who was able to get at least 60% marks in practice specific items was referred as good practice.

Independent variables: Sociodemographic variables (age: d"20, 21-25, 26 and more; education: no education, primary, secondary tertiary; family size: small, extended; monthly family income: <20000, 20000 to 30000, >30000; marital status: single/unmarried, married, divorced/widowed; parents' education & occupation; present living condition: alone, with family, relatives and hostel), lifestyle factors (watching TV: yes vs no and reading newspaper: yes vs no) and workplace-related factors (toilet facility: modern vs traditional; wash facility: yes vs no; separate female toilet: yes vs no; each toilet for induvial: ≤ 5 vs >5).

Statistical analysis

The data for this study was analyzed by using Statistical Package Social Science (SPSS) software version 23. Descriptive statistics was conducted using frequencies and proportions. Chi-square test was used to determine the association between dependent and independent variables. Linear regression and Pearson co-relation was used to determine the association between knowledge and practice.

Results:

Participants' sociodemographic characteristics

The mean age of study participants was 27.97±5.89 with minimum 18 and maximum 38 years. Most of the participants (61.5%) were more than 25 years old. Most participants were living with family members and

the mean number (n) was 4.09±1.99 with highest 10 members in a family. The average monthly family income of the study participants was 10907.69 Bangladeshi taka (BDT) with highest salary of 20000 BDT and lowest 8000 BDT. The mean monthly family income of the RMG workers was 25847.58 BDT with highest 40000 and lowest 10000 BDT (Table I). Approximate 14% of participants had no education. Nearly two-thirds (76.4%) were leading married life, and were living with family members (83.8%).

Table-I
Participants' sociodemographic characteristics (n=351)

Variables	Category	Frequency	Percentage
Age	≤20 years	56	16.0
	21 to 25	79	22.5
	>25 Years	216	61.5
Family size	Small (<4 members)	234	66.7
	Extended (≥4 members)	117	33.3
Monthly family income	<20000 BDT	126	35.9
	20000 to 30000 BDT	142	40.5
	> 30000 BDT	83	23.6
Education	No education	49	14.0
	Primary	121	34.5
	Secondary	166	47.3
	Tertiary	15	4.3
Marital status	Unmarried	66	18.8
	Married	268	76.4
	Divorced/widowed	17	4.8
Living with	Family	294	83.8
	Alone	7	2.0
	Relatives	30	8.5
	Mess/ hostel	20	5.7
Father's education	No education	176	50.1
	Educated	175	49.9
Mother's education	No education	245	69.8
	Educated	106	30.2
Father's occupation	Business	58	16.5
	Farmer	229	65.2
	Employed	40	11.4
	Rickshaw puller	10	2.8
	Unemployed	14	4.0
Mother's occupation	Garment workers	24	6.8
	Housemaid	24	6.8
	Housewife	303	86.3

Knowledge and practice of UTI

We considered 10 knowledge and 10 practice specific questions to identify the knowledge and practice level of the study participants. The mean knowledge score was 3.43 with highest value of 8 and lowest value of 0. The mean practice score was 4.07 with lowest score of 0 and highest score of 9. Among the study participants, only 78 (22%) had good knowledge regarding UTI (Figure I) and 115 (33%) were in good practice range (Figure II).

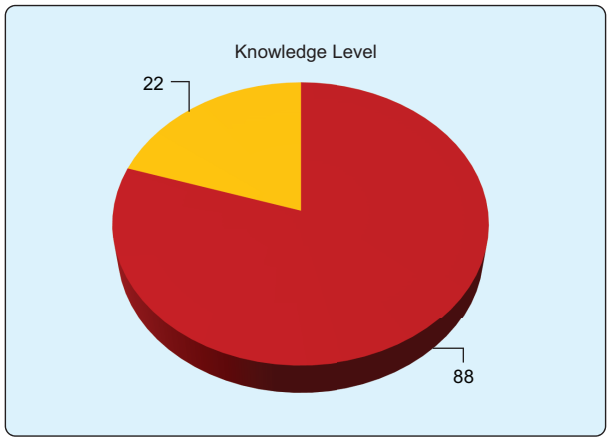

Figure 1: *Knowledge level of RMG workers regarding UTI*

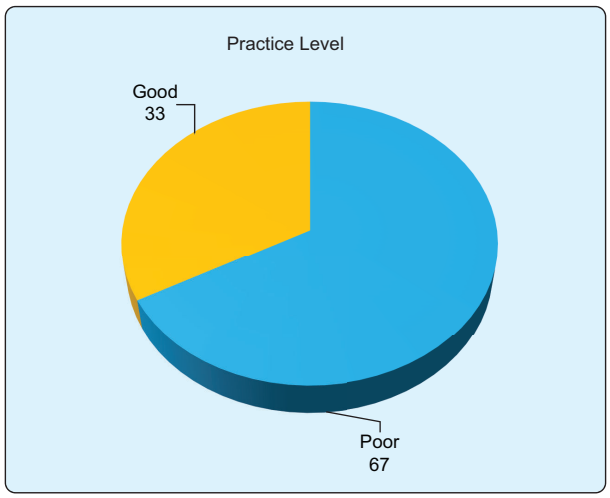

Figure 2: *Practice level of RMG workers regarding UTI*

Table II shows the habit of watching TV was found very common among RMG workers, only 12.8% had the habit of reading newspaper, and around 35% participants had habit of eating street foods. In interviewed RMG industries 4.31 toilet facilities and 3.28 washing facilities were available for per 100 RMG workers.

Table-II

Distribution of Dependent variables of RMG workers

Variables	Category	Frequency	Percentage
Watch TV	Daily	89	25.4
	Sometimes	234	66.7
	Not watch	28	8.0
Read newspaper	Yes	45	12.8
	No	306	87.2
Training	Yes	58	16.5
	No	293	83.5
Habit of street food	No	230	65.5
	Yes	121	34.5
Toilet facility	No	11	3.1
	Yes	340	96.9
Washing facility	No	19	5.4
	Yes	332	94.6
House toilet	Brick	284	80.9
	Tin	67	19.1
Drink water	<2 liters	187	53.3
	≥ 2 liters	164	46.7

Moreover, only 16.5% of the participants previously got training on health, 3.1% reported unavailability of female toilet facility, and 5.4% reported unavailability of washing facility. It was also evident that only 46.7% participants drink more than 2 liters of water (Table II).

Association between knowledge level towards UTI and independent variables

We went through chi-square analysis to determine the association between knowledge level of female RMG workers towards UTI and considered independent variables (Table III). Among the considered independent variables age of the participants (Chi-square: 8.462; P= 0.015), family size (Chi-square: 4.747; P= 0.029), education (Chi-square: 16.328; P= 0.001), living with (Chi-square: 9.997; P= 0.019), father's education (Chi-square: 6.741; P= 0.009), mother's education (Chi-square: 42.981; P= 0.000), father's occupation (Chi-square: 18.899; P= 0.001), watching TV (Chi-square: 13.012; P= 0.001), reading newspaper (Chi-square: 17.845; P= 0.000), received health-related training (Chi-square: 14.753; P= 0.000) had statistically significant association with knowledge level of female RMG workers towards UTI.

Table-III

Association between knowledge level of female RMG workers towards UTI and considered independent variables

Variables	Category	Knowledge level		Chi-square	P value
		Poor (%)	Good (%)		
Age (years)	<= 20	46 (82.1)	10 (17.9)	8.462	0.015*
	21-25	52 (65.8)	27 (34.2)		
	=> 26	175 (81.0)	41 (19.0)		
Family size	<= 4	174 (74.4)	60 (25.6)	4.747	0.029*
	> 4	99 (84.6)	18 (15.4)		
Family income	<= 20000	104 (82.5)	22 (17.5)	2.778	0.249
	20001-30000	108 (76.1)	34 (23.9)		
	> 30000	61 (73.5)	22 (26.5)		
Education	Illiterate	47 (95.9)	2 (4.1)	16.328	0.001*
	Primary level	88 (72.7)	33 (27.3)		
	Secondary Level	130 (78.3)	36 (21.7)		
	Higher secondary/ more	8 (53.3)	7 (46.7)		
Marital status	Unmarried	52 (78.8)	14 (21.2)	5.323	0.070
	Married	204 (76.1)	64 (23.9)		
	Divorced/ Separated/ Widow	17 (100.0)	0 (0.0)		

(table continued)

Table-III (cont'd)

Variables	Category	Knowledge level		Chi-square	P value
		Poor (%)	Good (%)		
Living with	With family	226 (76.9)	68 (23.1)	9.997	0.019*
	Alone	7 (100.0)	0 (0.0)		
	With relatives	20 (66.7)	10 (33.3)		
	Mess/ Hostel	20 (100.0)	0 (0.0)		
Father's education	Illiterate	147 (83.5)	29 (16.5)	6.741	0.009*
	Literate	126 (72.0)	49 (28.0)		
Mother's education	Illiterate	214 (87.3)	31 (12.7)	42.981	0.000*
	Literate	59 (55.7)	47 (44.3)		
Father's occupation	Business	35 (60.3)	23 (39.7)	18.899	0.001*
	Farmer	185 (80.3)	44 (19.2)		
	Job	29 (72.5)	11 (27.5)		
	Rickshaw puller	10 (100.0)	0 (0.0)		
	Others	14 (100.0)	0 (0.0)		
Mother's occupation	Garments worker	19 (79.2)	5 (20.8)	4.969	0.083
	Housemaid	23 (95.8)	1 (4.2)		
	Housewife	231 (76.2)	72 (23.8)		
Watch TV	Regularly	57 (64.0)	32 (36.0)	13.012	0.001*
	Irregularly	193 (82.5)	41 (17.5)		
	Don't watch	23 (82.1)	5 (17.9)		
Read newspaper	Yes	24 (53.3)	21 (46.7)	17.845	0.000*
	No	249 (81.4)	57 (18.6)		
Received health	Yes	34 (58.6)	24 (41.4)	14.753	0.000*
related training	No	239 (81.6)	54 (18.4)		

The association between practice level of female RMG workers towards UTI and considered independent variables were also analyzed by chi-square test (Table IV). Among the considered independent variables Family income (Chi-square: 58.883; P= 0.000), Education (Chi-square: 25.347; P= 0.000), Marital status (Chi-square: 27.290; P= 0.000), Living with (Chi-square: 14.223; P= 0.002), Father education (Chi-square: 28.969; P= 0.000), Mother education (Chi-square: 14.307; P= 0.001), Father occupation (Chi-square: 45.489; P= 0.000), Watch TV (Chi-square: 7.233; P= 0.027), Received Health related training (Chi-square: 45.368; P= 0.000), House wall material (Chi-square: 9.181; P= 0.002), House toilet wall (Chi-square: 10.043; P= 0.002), Washing facility at workplace (Chi-square: 6.896; P= 0.009)had statistically significant Association with practice level of female RMG workers towards UTI.

Table-IV

Association of Practice level of female RMG workers towards UTI and considered independent variables

Variables	Category	Practice level		Chi-square	P value
		Poor (%)	Good (%)		
Age (in years)	≤20	39 (69.6)	17 (30.4)	0.297	0.862
	21-25	54 (68.4)	25 (31.6)		
	≥ 26	143 (66.2)	73 (33.8)		
Family size	≤4 members	154 (65.8)	80 (34.2)	0.647	0.470
	> 4 members	82 (70.1)	35 (29.9)		
Family income	≤20000	117 (92.9)	9 (7.1)	58.883	0.000*
	20001-30000	77 (54.2)	65 (45.8)		
	> 30000	42 (50.6)	41 (49.4)		
Education	Illiterate	47 (95.9)	2 (4.1)	25.347	0.000*
	Primary level	69 (57.0)	52 (43.0)		
	Secondary Level	112 (67.5)	54 (32.5)		
	Higher secondary/ more	8 (53.3)	7 (46.7)		
Religion	Muslim	224 (67.7)	107 (32.3)	0.504	0.478
	Others	12 (60.0)	8 (40.0)		
Marital Status	Unmarried	58 (87.9)	8 (12.1)	27.290	0.000*
	Married	161 (60.1)	107 (39.9)		
	Divorced/ Separated/ Widow	17 (100.0)	0 (0.0)		
Living with	With family	189 (64.3)	105 (35.7)	14.223	0.002*
	Alone	7 (100.0)	0 (0.0)		
	With relatives	20 (66.7)	10 (33.3)		
	Mess/ Hostel	20 (100.0)	20 (0.0)		
Father education	Illiterate	142 (80.7)	34 (19.3)	28.969	0.000*
	Literate	94 (53.7)	81 (46.3)		
Mother education	Illiterate	180 (73.3)	65 (26.5)	14.307	0.001*
	Literate	56 (52.8)	50 (47.2)		
Father occupation	Business	19 (32.8)	39 (67.2)	45.489	0.000*
	Farmer	164 (71.6)	65 (28.4)		
	Job	29 (72.5)	11 (27.5)		
	Rickshaw puller	14 (100.0)	0 (0.0)		
	Others	10 (100.0)	0 (0.0)		
Mother's Occupation	Garments worker	19 (79.2)	5 (20.8)	2.542	0.281
	Housemaid	18 (75.0)	6 (25.0)		
	Housewife	199 (65.7)	104 (34.3)		
Work started	Before 18	95 (62.5)	57 (37.5)	2.730	0.098
	After 18	141 (70.9)	58 (29.1)		
Watch TV	Regularly	51 (57.3)	38 (42.7)	7.233	0.027*
	Irregularly	162 (69.2)	72 (30.8)		
	Don't watch	23 (82.1)	5 (17.9)		
Read newspaper	Yes	27 (60.0)	18 (40.0)	1.227	0.268
	No	209 (68.3)	97 (31.7)		
Received Health related training	Yes	17 (29.3)	41 (70.7)	45.368	0.000*
	No	219 (74.7)	74 (25.3)		
Habit of taking street food	No	157 (68.3)	73 (31.7)	0.318	0.573
	yes	79 (65.3)	42 (34.7)		
House type	Own	29 (76.3)	9 (23.7)	1.595	0.207
	Rented	207 (66.1)	106 (33.9)		
House material	Building	166 (62.9)	98 (37.1)	9.181	0.002*
	Tin/ others	70 (80.5)	17 (19.5)		
House toilet wall	Brick/ concrete	180 (63.4)	104 (36.6)	10.043	0.002*
	Tin/ Others	56 (83.6)	11 (16.4)		
Members (n) use each toilet at home	<= 5	78 (61.9)	48 (38.1)	2.536	0.111
	> 5	158 (70.2)	67 (29.8)		
Female toilet at workplace	No	10 (90.9)	1 (9.1)	2.889	0.089
	Yes	226 (66.5)	114 (33.5)		
Washing facility at workplace	No	18 (94.7)	1 (5.3)	6.896	0.009*
	Yes	218 (65.7)	114 (34.3)		
Toilet facility (n) for 100 workers	<= 5	184 (67.4)	89 (32.6)	0.015	0.903
	> 5	52 (66.7)	26 (33.3)		
Wash facility (n) for 100 workers	<= 5	203 (66.6)	102 (33.4)	0.487	0.485
	> 5	33 (71.7)	13 (28.3)		

The linear correlation between knowledge and practice score of female RMG workers towards UTI was determined by calculating Pearson correlation coefficient or Pearson's r (Figure III). Correlations were interpreted using the following criteria: 0-0.25 = weak correlation, 0.25-0.5= fair correlation, 0.5-0.75 = Good correlation and greater than 0.75 = Excellent correlation. Our study revealed r=0.642, which indicates a good correlation between knowledge and practice score of female RMG workers towards UTI. Moreover, the linear correlation was also significant as p<0.01.

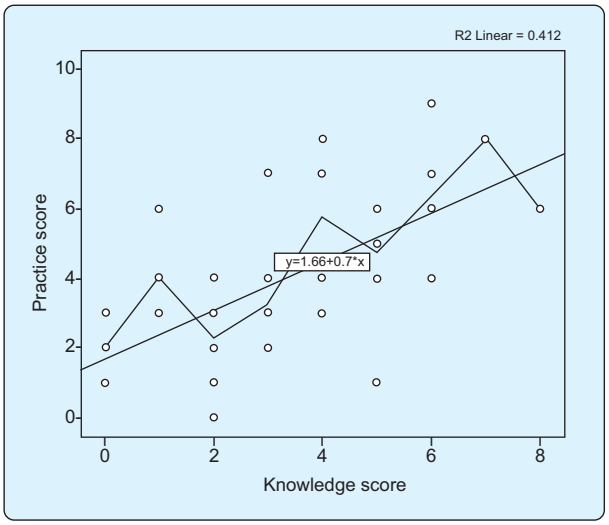

Figure 3: *Linear relationship between knowledge and practice score:*

The scatterplot showed the relationship between Knowledge and practice score, which indicates better practice score was obtained by respondents has better knowledge in general. This linear positive relationship was also revealed by the regression equation Y=1.66+0.7X. The calculated value (t=15.65), and (R^2=0.412) also indicates a statistically significant association between the two variables (p<0.01).

Discussion:

The study assessed the level of knowledge and preventive practice towards urinary tract infection among Female RMG Workers. Moreover, factors those were significantly associated with knowledge and practice level were also identified. We have further identified the linear correlation between the knowledge and practice score. The average monthly family income of the study participants was 10907.69 BDT with highest salary of 20000 BDT and lowest 8000 BDT. The mean monthly family income of the RMG workers was 25847.58 BDT with highest 40000 and lowest 10000 BDT. Manufacturing RMG is labour intensive and low wage-based industry. Nowhere, this industry was static or permanent basically on account of wage. As soon as any country became developed, the apparel and textile industry left that country. The minimum wage of this very sector is lower than other sectors within the country and among the RMG manufacturing countries as well. On the contrary, within the country, for the same sector – RMG, there are dissimilarity in the minimum wage.

As there is no previously published study, where knowledge and preventive practice status regarding UTI among RMG workers assessed. Therefore, we are unable to show the trend of differences among various studies in similar settings. We have considered 10 knowledge and 10 practice specific questions to identify the knowledge and practice level of the study participants. The mean knowledge score was 3.43 with highest value of 8 and lowest value of 0. The mean practice score was 4.07 with lowest score of 0 and highest score of 9. Among the study participants only 78 (22%) had good knowledge regarding UTI and 115 (32.8%) were in good practice range. However, good knowledge was found high among university students (40%) in a previously conducted study in Bangladesh[13].

In our study participants age were categorized into three category and most of the participants (61.5%) were more than 25 years old. A previous study conducted in Bangladesh also found 42.22% workers were from 22-25 years old which create great empowerment to RMG sector[14]. The high percentage of women working in RMG in Bangladesh underscores the empowerment of women. As a result, the authors suggest policymakers introduce skilled female RMG workers to increase industry productivity and increase women's empowerment in job sectors.

Most of family had around four or less members in their family with income of around 20000 to 30000 BDT. Based on current income levels, a participant's monthly household income is lower than other sector workers. The Guardian reported in 2019 that Bangladesh factory workers earn less than the local living wage, which is unsurprising[15]. This inequality highlights the need for better policies to support these individuals. The literacy rate was found satisfactory among RMG workers as only 49 (14%) female RMG

workers found illiterate. Approximate two-thirds of participants were leading married life, and were living with family members. The Illiteracy rate was found high among parents of the study participants as the literacy rate among father was 50% and among mother was 30.2%. When gone through the occupation of the parents it was observed that more than 86% of the mothers were housewife and more than 65% fathers were farmer.

It is now clear that, most of the garment workers are now educated. Therefore, a recent report has showed that their children are also going to school with dress, books as well as essential things[16]. If we see the statistics, some years ago of their lifestyle and their parents' lifestyle, was very poor in shape; they couldn't take regular food & wear dress. But nowadays after their revised salary; now they can help their parents continuously, not only this they provide them festival dress.

On the other hand, a large number of study participants (43.3%) started their job in RMG industries before 18 years old age. Child labour at export-oriented garment factories in Bangladesh has been substantially reduced over the past few years, in part due to buying companies' zero tolerance policies[17]. Though, at present garments industry don't allow under 18 years labor. This indicates the recent improvement in labour policy in this sector. Habit of watching TV was found very common among RMG workers, only 12.8% had the habit of reading newspaper, and around 35% participants had habit of eating street foods. In response, the ILO Programme on Improving Working Conditions in the Ready-Made Garment Sector funded by Canada, the Netherlands and the UK was launched in October 2013 significantly improved their lifestyle[18]. In addition to international organizations, the Bangladesh government must take necessary steps to improve RMG workers' lives. By doing so, the government can create a sustainable and equitable industry that will benefit all stakeholders.

We found that age of the participants, family size, education, residence, father education, mother education, father occupation, watch TV, received health related training had statistically significant association with knowledge level of female RMG workers towards UTI. The association between practice level of female RMG workers towards UTI and considered independent variables were also analyzed by chi-square test. Among the considered independent variables were: family income, education, marital status, residence, father education, mother education, father occupation, watch TV, received health related training, house wall material, house toilet wall, washing facility at workplace had statistically significant association with practice level of female RMG workers towards UTI.

The linear correlation between knowledge and practice score of female RMG workers towards UTI was determined by calculating Pearson correlation coefficient or Pearson's r. Our study revealed a good correlation between knowledge and practice score of female RMG workers towards UTI. It appears that knowing about UTIs influences them to practice good hygiene. Consequently, the authors suggest that RMG workers, especially females, receive training on health-related issues.

The scatterplot also identified better practice score among respondents has better knowledge in general. The calculated value also indicates a statistically significant association between the two variables ($p<0.01$).

Proper sanitation issue now also improving not only for garments workers but also for total Bangladesh. This is a massive improvement for Bangladesh. Approximately 80% of garments & textile workers get sanitation, which has been indicated in our study. However, in most of garments about 20-30 persons now use one toilet which create not only problem but also unhygienic. Similar situation has been observed in our analysis. Water supply/ washing facility is a very big issue, now they are very much struggling for clean water supply. So, it is very needed to solve their clean water supply.

It is important to note that the study has several strengths and limitations. As far as we know, this is the first study in Bangladesh to assess UTI knowledge and practices among female RMG workers. Furthermore, the data was collected by a doctor and from two different garments. This study sample size is low compared to total RMG workers which is a key limitation of the study. In addition, the study could not compare the findings with other study due to lack of research.

Conclusion:

Our study has disclosed the knowledge and practice level regarding UTI among female RMG workers. The study has also revealed some important factors those are associated with knowledge and practice level. Overall, the level of knowledge and practice was relatively poor in compared with other professional, however practice level was relatively better than knowledge. Some important socio-demographic and WASH access related factors were found significantly associated with knowledge and practice level. In future study would be conducted highlighting those associated factors. Moreover, knowledge was found a significant predictor for good practice. The authors suggest that policymakers or respective authorities take the initiative in setting up health-related counseling regularly since they were found to be less concerned about how participants eat. Further, study with larger data sets should be conducted to attain real scenario.

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