

# Job satisfaction and performance among employed Bangladeshi women working from home during COVID-19 pandemic: A cross-sectional study

Hurul Jannat<sup>1,2</sup>  | KM Saif-Ur-Rahman<sup>3</sup>  | Irfan Nowroze Noor<sup>1</sup>  | Afroza Begum<sup>1</sup>

<sup>1</sup>Department of Maternal and Child Health, National Institute of Preventive and Social Medicine (NIPSOM), Dhaka, Bangladesh

<sup>2</sup>Communicable Disease Control (CDC), Directorate General of Health Services, Ministry of Health, Govt. of Bangladesh

<sup>3</sup>Health Systems and Population Studies Division, International Center for Diarrheal Disease Research, Bangladesh (icDDR), Dhaka, Bangladesh

## Correspondence

Hurul Jannat, Department of Maternal and Child Health, National Institute of Preventive and Social Medicine (NIPSOM), Dhaka, Bangladesh, and Communicable Disease Control (CDC), Directorate General of Health Services, Dhaka, Bangladesh.  
Email: [shimussmc@gmail.com](mailto:shimussmc@gmail.com)

## Abstract

**Background and Aims:** The emergence of the COVID-19 pandemic led to the adoption of telework modalities by individuals in Bangladesh. The study's objective was to determine the job satisfaction and performance level of employed Bangladeshi women working from home during the COVID-19 pandemic lockdown.

**Methods:** A cross-sectional study was conducted among women employees of different professions in Dhaka city. The Minnesota Satisfaction Questionnaire (MSQ) was used to measure job satisfaction. Work arrangement satisfaction and self-reported performance were measured by two separate subscales which contain five items each. Responses from 118 employed women were analyzed using descriptive statistics, Pearson Chi-square tests, Independent *t*-tests, one-way analysis of variance, and Pearson Correlation tests through the Statistical Package for Social Science (SPSS), version 26.

**Results:** The findings indicated that 51.7% of women reported a high degree of satisfaction on the MSQ scale; 61.9% expressed high satisfaction with their work arrangements at home and 66.9% reported a high level of performance. Job satisfaction was significantly associated with the number of children and the number of family members. A positive association was found between job satisfaction and total working experience and work arrangements. Work performance was strongly associated with higher educational qualifications. A statistically significant association between job satisfaction and performance was revealed.

**Conclusions:** The findings from this study indicated a high degree of job satisfaction and a high level of performance found in women employees who worked from home during the COVID-19 pandemic. These findings encourage organizations to foster more policies for telework alternatives for employed women to help them keep a balance between work responsibilities and household chores.

## KEYWORDS

COVID-19, job satisfaction, performance, telework, women employee, work from home

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## 1 | INTRODUCTION

The World Health Organization (WHO) announced COVID-19 as a pandemic worldwide on March 11, 2020. To combat the ongoing spread of COVID-19; lockdown for months, social distancing, and personal hygiene such as wearing masks & washing hands were suggested as preventive measures. During lockdown, organizations implemented the work-from-home (WFH) system to keep the economy moving and to prevent the pandemic from spreading, except for essential service sectors.<sup>1</sup>

The concept of WFH was first described as a way to replace commuting with telecommuting (working at home using technological advances).<sup>2</sup> WFH provides the opportunity for greater employee autonomy, a flexible work schedule for work-family balance, professional career advancement, and reduced transportation costs.<sup>3</sup> Research conducted in Lithuania during COVID-19 found that employees were satisfied with their jobs in some key facets like working independently, time management, communication skills, and commitment to the organization while WFH.<sup>4</sup> An Australian survey conducted during the COVID-19 pandemic aimed to identify the changing nature of telework. The survey revealed several benefits such as no commute, saving fuel, financial savings, increased flexibility, and spending more time with family or friends. However, participants also reported challenges like difficulty in separating work and home life, distractions during work hours, difficulty in switching off postwork, sustaining motivation, equipment constraints, and issues with online communication.<sup>5</sup> Putranti et al. found in an Indonesian study that telework provided flexible working hours resulting in increased employee satisfaction and performance in formal sectors.<sup>6</sup> Conversely, S. Ortiz-Bonnin et al. found no significant direct relationships between telework and subjective well-being or performance. However, they did find that telework increased employees' well-being and performance through a higher satisfaction with work-life balance.<sup>7</sup>

In Bangladesh, the first pandemic-related lockdown was announced on March 26, 2020. This created an urgent need for public and private organizations to digitize their activities leading to WFH for almost all employees except the essential or emergency workforce. With the rapid growth of the information and technology sector in Bangladesh, especially the employees of the ICT companies practiced WFH before COVID-19. They were instructed to continue WFH on a larger scale during the pandemic, aiming to sustain productivity.<sup>8</sup> Understanding the factors that influence the productivity of ICT professionals based on prior experience aided the adoption of telework and helped to optimize their work performance.<sup>8</sup> Furthermore, employed women faced the challenge of balancing work and personal lives. During the lockdown, many parents had to combine paid work and full-time childcare which likely impacted their performance. However, WFH was proved to be a key motivator for achieving effective work-family balance for Bangladeshi working women since the emergence of COVID-19 and provided greater flexibility with enhanced productivity.<sup>9</sup> Some parents, especially mothers found the WFH arrangements beneficial due to changes in

technology and office culture after COVID-19.<sup>10</sup> In contrast, a study of IT professionals in Bangladesh who worked from home during the pandemic found obstacles relating to workspace concerns, online teamwork, resources, inconsistent Wi-Fi, and decreased emotional well-being.<sup>8</sup>

The influence of telework on job satisfaction and work performance was evident in various socio-cultural environments, with a notable impact on women employees.<sup>6</sup> Researchers have defined job satisfaction using diverse approaches. Robbins explained job satisfaction as an employee's feelings towards their organization.<sup>11</sup> Locke's Range of Affect Theory stated it as a combination of job experiences, achievements, and appraisals leading to favorable responses from the employees.<sup>12</sup> Weiss defined job satisfaction as an attitude toward one's job reflected in their mindset and actions.<sup>13</sup> The Minnesota Satisfaction Questionnaire (MSQ) is widely recognized and accepted as a primary indicator for measuring job satisfaction in a large variety of occupations.<sup>14</sup> A survey of Turkish healthcare workers at multiple health centers revealed average to high satisfaction in all facets except the working environment and salary using the MSQ.<sup>15</sup> Research suggests positive outcomes of telework regarding performance. Arntz conducted a study on company employees and suggested a 20-fold performance increase while WFH.<sup>10</sup> Similarly, a California State study on WFH employees reported a 13.5% increase in self-assessed performance, while supervisors noted a 10% improvement.<sup>16</sup> WFH emerged as a preferred choice for many organizations during the lockdown of the COVID-19 pandemic. This led to increased employee satisfaction and productivity resulting in higher earnings and a continued positive impact on local economies.<sup>17</sup>

There is a scarcity of studies on the effects of WFH in Bangladesh during the COVID-19 pandemic. Additionally, qualitative studies identifying the challenges faced by working women seeking work-life balance remain scarce.<sup>8,9</sup> Bangladeshi women encounter numerous obstacles, including lack of available time, socio-cultural norms, and gender stereotypes within patriarchal sociocultural backgrounds. To integrate work-family responsibilities, women often rely on effective time management, listing out priorities, maintaining harmony with husbands and family members, managing professional and personal lives sustainably, and practicing stress management.<sup>9</sup> However, there is a lack of exploration into potential solutions for Bangladeshi women across diverse professions seeking effective work-family balance within a patriarchal society. In this context, this study aimed to determine the job satisfaction and work performance of the employed women WFH during the COVID-19 lockdown.

## 2 | METHODS

This cross-sectional study was conducted in Dhaka Metropolitan City. Inclusion criteria included women employees of different professions in Dhaka metropolitan city who experienced WFH during the COVID-19 pandemic but otherwise used to work in office premises before the pandemic and consented to take part in the study.

Women employees of emergency workforces such as physicians, nurses, police, firefighters, etc., and who were severely ill and not giving consent were excluded from the study. The respondents were enrolled by a convenient type of non-probability sampling method. Twelve institutions of different sectors such as IT professionals, teachers, employees of production and trade, bankers, and management and administration were selected conveniently. The women employees who worked from home in those departments were approached through our contacts like family, friends, and colleagues. In total, 118 women employees took part in this study and the nonresponse rate was zero. They were contacted through telephone and e-mail and the purpose of the study was explained in detail. Written informed consent was taken based on ethical considerations. A semi-structured questionnaire was constructed containing socio-demographic characteristics of the respondents, a job satisfaction scale of the MSQ short form of 20 questions,<sup>14</sup> a work arrangement subscale of five questions,<sup>18</sup> and a self-reported performance scale of five questions.<sup>19</sup> Two open questions were asked about the benefits and challenges of WFH but those facets could not be analyzed further in this study due to time constraints. As lockdown was imposed during the study period, questionnaires were made on paper and an editable PDF format was sent through both parcel service with returning envelope and e-mail respectively. The respondents sent back the filled-up questionnaire through the return parcel service and e-mail. Having a familiar connection, an interesting newer topic, and cultural values on family and community bonds might have influenced their willingness to participate in sharing personal information resulting in a zero nonresponse rate. All collected data were checked thoroughly before data entry and entered in the Statistical Package for Social Science (SPSS) version 26 software, after preparing a format according to the coding mentioned in the questionnaire.

The MSQ short form with 20 items of different facets was used in this study to measure job satisfaction related to WFH.<sup>20</sup> The respondents rated their satisfaction on a Likert scale from 1 (Very Dissatisfied) to 5 (Very Satisfied). Scoring of MSQ: Scores of each item were calculated by summing the responses ranging from 20 to 100. A score of 75 or higher indicated "high degree of job satisfaction," 25 or lower indicated "low degree of job satisfaction," and 26 to 74 indicated "average level of job satisfaction."<sup>20</sup> Reliability of MSQ: Median reliability coefficients were 0.86 for intrinsic satisfaction, 0.80 for extrinsic satisfaction, and 0.90 for general satisfaction found in the Manual for the MSQ.<sup>14</sup> In this study, Cronbach's alpha reliability test shows 0.80 for intrinsic satisfaction, 0.70 for extrinsic satisfaction, and 0.87 for general satisfaction. Validity of the MSQ: The validity of the short form was inferred from the long form of the MSQ. The validity of the long form of MSQ is extracted with construct validity, group difference, and factor structure. Moreover, the short-form MSQ's validity is supported by evidence from occupational group differences and the Theory of Work Adjustment.<sup>14</sup> Evidence for this validity of the MSQ as a measure of general job satisfaction had been proven through repeated use over 25 occupational groups and was analyzed by one-way analysis of variance in several previous studies.<sup>20</sup>

Additional questions assessed the satisfaction level of work arrangements related to work from home, with a reliability score of 0.77.<sup>18</sup> Sample items were "What is your level of satisfaction with the opportunity to schedule your own working hours?"; "What is your level of satisfaction with the opportunity to balance family and personal responsibilities?" Self-reported performance was marked on a 5-point Likert scale from 1 (Very Unsatisfactory) to 5 (Excellent) consisting of 5 items like timelines, quality of work, quantity of work, need for supervision, and interpersonal impact.<sup>19</sup> A sample item was "What is your level of satisfaction regarding the quantity of work you have done while teleworking during COVID-19?" All the items of the MSQ job satisfaction scale, work arrangement satisfaction level, and performance scale are shown in the result section briefly. Sociodemographic variables about respondents (age, educational qualification, occupation, marital status, family type, family members' number, children number, family income and expenditure, weekly working hours, total working experience in years, etc.) were also recorded.

The data analyses consisted of descriptive and analytical statistics and the findings were presented by frequency percentage, mean, and standard deviation through tables. Pearson's chi-square ( $\chi^2$ ) tests, Pearson's correlation analysis, independent t-test (two-tailed), and one-way analysis of variance (ANOVA) tests were done by using SPSS software, version 26, and interpreted with statistical information. The  $p < 0.05$  was considered statistically significant. The study was approved by the Institutional Review Board of the National Institute of Preventive and Social Medicine (NIPSOM) (Memo number: NIPSOM/IRB/2020/1225).

### 3 | RESULTS

The age of the respondents ranged from 25 to 50 years; the mean age of 34.69 with a standard deviation of 5.54. Out of 118 women employees, 47.5% were graduates and 52.5% were postgraduate. 12 employees (10.2%) were single and 106 (89.8%) were married. Among the working women, 96 (81.4%) had 2 or fewer children while 10 (8.5%) had 3 or more children at home and 78 (66.1%) lived in a nuclear family & the rest lived in a non-nuclear family. This study's respondents included 28.8% IT workers, 25.4% teachers, 22% in production and trade, 13.6% bankers, and 10.2% in management and administration. All the respondents were full-time employees who worked from home for an average of 41.53 h per week, with a standard deviation of 7.78. The mean years of experience in the job were 7.67 with a standard deviation of 4.5. Table 1 presents a summary of the socio-demographic characteristics of the respondents as measured by their responses to the questionnaire.

#### 3.1 | Job satisfaction

The job satisfaction analysis was received from the feedback as 52% expressed a high degree of satisfaction, 48% experienced average satisfaction, and no respondents were found in a low level of satisfaction while WFH (Table 2).

**TABLE 1** Sociodemographic characteristics of women employees.

Demographic variables	Frequency (n = 118)	Percentage (%)	Mean ( $\pm$ SD)
<b>Age</b>			
			34.69 ( $\pm$ 5.54)
25–30 years	31	26.3	
30–35 years	38	32.2	
35–40 years	33	28.0	
40–45 years	13	11.0	
45–50 years	3	2.5	
<b>Religion</b>			
Islam	106	90	
Hinduism	11	9	
Buddhism	1	1	
Christianity	0	0	
Others	0	0	
<b>Occupation</b>			
IT professionals	34	28.81	
Teachers	30	25.42	
Production and trade	26	22.03	
Banker	16	13.56	
Management and administration	12	10.17	
<b>Educational qualification</b>			
Graduate	56	47.5	
Postgraduate	62	52.5	
<b>Current marital status</b>			
Unmarried	12	10.2	
Married	106	89.8	
<b>Type of family</b>			
Nuclear	78	66.1	
Non-nuclear	40	33.9	
<b>Number of children</b>			1.37 ( $\pm$ 0.90)
2 and below	96	81.4	
3 and above	10	8.5	
<b>Number of family members</b>			4.42 ( $\pm$ 1.77)
4 and below	68	57.6	
5 and above	50	42.4	
<b>Working experience in years</b>			7.67 ( $\pm$ 4.50)
$\leq$ 4 years	39	33.1	
5–8 years	34	28.8	

**TABLE 1** (Continued)

Demographic variables	Frequency (n = 118)	Percentage (%)	Mean ( $\pm$ SD)
9–12 years	28	23.7	
>12 years	17	14.4	
<b>Weekly working hours</b>			41.53 ( $\pm$ 7.78)
30–35 h	28	23.7	
35–40 h	44	37.3	
40–45 h	8	6.8	
45–50 h	16	13.6	
$\geq$ 50 h	22	18.6	
<b>Average monthly income</b>			
$\leq$ 50,000 BDT (=500 USD)	29	24.6	
50,001–10,0000 BDT (=500–1000 USD)	53	44.9	
>100,000 BDT (=1000 USD)	36	30.5	
<b>Average monthly expenditure</b>			
$\leq$ 50,000 BDT (=500 USD)	35	29.7	
50,001–100,000 BDT (=500–1000 USD)	56	47.5	
>100,000 BDT (=1000 USD)	27	22.9	

The work arrangement satisfaction of the women employees (n = 118) revealed a mean score of 18.01 with a standard deviation of 2.6. Among the respondents, 61.9% and 38.1% reported a high level of satisfaction and average satisfaction respectively. Table 3 represents all five items of the work arrangement subscale.

### 3.2 | Work performance

The majority of the respondents reported satisfaction in different statements (timelines, quality of work, quantity of work, need for supervision, interpersonal impact) whereas some reported unsatisfactory with the need for supervision and interpersonal impact. 66.9% of respondents reported a high level of performance with a mean of  $18.4 \pm 2.02$  and ranging from 13 to 24 as shown in Table 4.

Statistical analyses (Pearson's correlation test, Independent t-test, Pearson's Chi-square test, One way ANOVA test) were done to find out the association of different variables with job satisfaction and performance as shown in Table 5.

**TABLE 2** Distribution of participants by their Job satisfaction.

Serial no	Statements	Very dissatisfied N (%)	Dissatisfied N (%)	Neither satisfied nor dissatisfied N (%)	Satisfied N (%)	Very satisfied N (%)	Mean (±SD)
01	Being able to keep busy all the time	0 (0%)	02 (1.7%)	27 (22.9%)	83 (70.3%)	6 (5.1%)	3.79 (±0.55)
02	The chance to work alone on the job	0 (0%)	03 (2.5%)	28 (23.7%)	83 (70.3%)	04 (3.4%)	3.75 (±0.56)
03	The chance to do different things from time to time	0 (0%)	01 (0.8%)	32 (27.1%)	81 (68.6%)	4 (3.4%)	3.75 (±0.53)
04	The chance to be 'somebody' in the community	0 (0%)	02 (1.7%)	36 (30.5%)	77 (65.3%)	03 (2.5%)	3.69 (±0.55)
05	The way my boss handles his/her workers	0 (0%)	03 (2.5%)	29 (24.6%)	79 (66.9%)	07 (5.9%)	3.76 (±0.59)
06	The competence of my supervisor in making decisions	0 (0%)	02 (1.7%)	33 (28.0%)	78 (66.1%)	05 (4.2%)	3.73 (±0.56)
07	Being able to do things that don't go against your conscience	0 (0%)	01 (0.8%)	35 (29.7%)	81 (68.6%)	01 (0.8%)	3.69 (±0.50)
08	The way your job provides for steady employment	0 (0%)	02 (1.7%)	32 (27.1%)	83 (70.3%)	01 (0.8%)	3.70 (±0.51)
09	The chance to do things for other people	0 (0%)	02 (1.7%)	30 (25.4%)	82 (69.5%)	4 (3.4%)	3.75 (±0.54)
10	The chance to tell people what to do	0 (0%)	03 (2.5%)	32 (27.1%)	81 (68.6%)	02 (1.7%)	3.69 (±0.54)
11	The chance to do something that makes use of my abilities	01 (0.8%)	05 (4.2%)	29 (24.6%)	82 (69.5%)	01 (0.8%)	3.65 (±0.61)
12	The way company policies are put into practice	01 (0.8%)	05 (4.2%)	45 (38.1%)	66 (55.9%)	01 (0.8%)	3.52 (±0.64)
13	My pay and the amount of work i do	01 (0.8%)	10 (8.5%)	39 (33.1%)	68 (57.6%)	0 (0%)	3.47 (±0.69)
14	The chances for advancement on this job	0 (0%)	07 (5.9%)	32 (27.1%)	79 (66.9%)	0 (0%)	3.61 (±0.60)
15	The freedom to use my own judgment	0 (0%)	06 (5.1%)	29 (24.6%)	78 (66.1%)	05 (4.2%)	3.69 (±0.63)
16	The chance of try my own methods of doing the job	0 (0%)	05 (4.2%)	24 (20.3%)	86 (72.9%)	03 (2.5%)	3.74 (±0.56)
17	The working conditions	0 (0%)	05 (4.2%)	18 (15.3%)	71 (60.2%)	24 (20.3%)	3.97 (±0.73)
18	The way your coworker get along with each other	0 (0%)	01 (0.8%)	21 (17.8%)	80 (67.8%)	16 (13.6%)	3.94 (±0.59)
19	The praise I get for doing a good job	0 (0%)	03 (2.5%)	29 (24.6%)	79 (66.9%)	07 (5.9%)	3.76 (±0.59)
20	The feeling of accomplishment I get from the job	0 (0%)	6 (5.1%)	25 (21.2%)	84 (71.2%)	03 (2.5%)	3.71 (±0.60)

## 4 | DISCUSSIONS

The study aimed to measure job satisfaction and performance levels, along with work arrangement satisfaction levels among employed women during the COVID-19 pandemic. Among 118

respondents, the majority reported a high degree and average level of job satisfaction on the MSQ Scale (the average score of overall job satisfaction was  $74.36 \pm 6.256$  ranging from 54 to 89). This was consistent with a study conducted among 153 private sector employees in India during COVID-19 using the MSQ scale

**TABLE 3** Work arrangement satisfaction of the respondents.

Serial no	Statements	Very dissatisfied (N %)	Dissatisfied (N %)	Neither satisfied nor dissatisfied (N %)	Satisfied (N %)	Very satisfied (N %)	Mean ( $\pm$ SD)
01	Satisfaction level of the opportunity to schedule own working hours	01 (0.8%)	04 (3.4%)	54 (45.8%)	56 (47.5%)	03 (2.5%)	3.47 ( $\pm$ 0.65)
02	Satisfaction level with the opportunity to take care of family and personal responsibilities	0 (0%)	04 (3.4%)	16 (13.6%)	67 (56.8%)	31 (26.3%)	4.06 ( $\pm$ 0.73)
03	Satisfaction level with the opportunity to lead an enjoyable lifestyle	0 (0%)	13 (11%)	41 (34.7%)	59 (50.0%)	05 (4.2%)	3.47 ( $\pm$ 0.75)
04	Satisfaction level with the amount of time spent for pick-ups or deliveries of work to the supervisor	01 (0.8%)	05 (4.2%)	51 (43.2%)	57 (48.3%)	04 (3.4%)	3.49 ( $\pm$ 0.67)
05	Satisfaction level with the number of hours required to work each day	02 (1.7%)	10 (8.5%)	36 (30.5%)	66 (55.9%)	4 (3.4%)	3.51 ( $\pm$ 0.77)

**TABLE 4** Self-reported performance of the respondents.

Statements	Very Unsatisfactory N (%)	Unsatisfactory N (%)	Average N (%)	Satisfactory N (%)	Excellent N (%)	Mean ( $\pm$ SD)
(1) Timelines	06 (5.1%)	0 (0%)	0 (0%)	45 (36.1%)	67 (56.8%)	3.67 ( $\pm$ 0.57)
(2) Quality of work	06 (5.1%)	0 (0%)	01 (0.8%)	50 (42.4%)	61 (51.7%)	3.61 ( $\pm$ 0.50)
(3) Quantity of work	04 (3.4%)	0 (0%)	03 (2.5%)	43 (36.4%)	68 (57.6%)	3.62 ( $\pm$ 0.59)
(4) Need for supervision	07 (5.9%)	0 (0%)	01 (0.8%)	37 (31.4%)	73 (61.9%)	3.73 ( $\pm$ 0.58)
(5) Interpersonal impact	07 (5.9%)	0 (0%)	01 (0.8%)	32 (27.1%)	78 (66.1%)	3.77 ( $\pm$ 0.56)
Self-reported performance	N (%)		Mean $\pm$ SD			
17 and below	39 (33.1%)		18.4 $\pm$ 2.02			
18 and above	79 (66.9%)					

that found a high degree of overall job satisfaction ( $76.47 \pm 17.99$ ) among WFH employees.<sup>21</sup>

In the current study, the mean of the facets on the MSQ scale ranged from  $3.97$  ( $SD \pm 0.73$ ) to  $3.47$  ( $SD \pm 0.69$ ). The highest mean was found in the "working conditions" facet and the lowest mean in the "My pay and the amount of work I do." Other facets which were given higher scores were "being able to keep busy all the time," "the chance to work alone on the job," "the chance to do different things from time to time," "the chance to do things for other people," "the way my boss handles his/her workers," and "the chance to try own methods of doing the job."

This study found significant differences in the importance assigned to different work arrangements aspects, with a high degree of satisfaction found in specific facets like "to take care of family & personal responsibilities" (mean  $4.06 \pm 0.73$ ) and "the opportunity to schedule own working hours" (mean  $3.47 \pm 0.65$ ). A comparative study of office workers and telecommuters also highlighted "being

able to fulfill family responsibilities" as the most satisfying aspect (mean  $4.56 \pm 0.07$ ) along with "working conditions" and "the ability to schedule one's own working hours."<sup>18</sup> This aligns with findings from a study on 82 telecommunication employees in Bangladesh where "working conditions" contributed to high job satisfaction.<sup>22</sup> "The opportunity to schedule own working hours" and "to take care of family and personal responsibilities" were also top factors revealed in a survey during the COVID-19 period on Lithuania's WFH employees.<sup>23</sup> This study demonstrated a significant positive correlation ( $r = 0.441$ ,  $p < 0.001$ ) between job satisfaction and work arrangements while working at home during COVID-19 (Table 5). In this study, WFH employees reported a mean satisfaction score of  $18.01$  ( $SD \pm 2.59$ ) regarding their work arrangement. This aligned with results from a study conducted by DuBrin AJ on 34 female telecommuting employees, which revealed a mean score of  $21.00$  ( $SD \pm 3.06$ ).<sup>18</sup>

**TABLE 5** Association of variables with job satisfaction and performance.

Association of variables with job satisfaction		
Variables	Test results	p Value
Age	$r = 0.196$	0.033 <sup>a</sup>
Educational qualification	$t = -1.253, df = 116$	0.213
Marital status	$\chi^2 = 0.015$	0.901
Type of family	$t = -1.482, df = 116$	0.141
Number of children	$\chi^2 = 6.425$	0.028 <sup>a</sup>
Number of family members	$\chi^2 = 4.59$	0.032 <sup>a</sup>
Total working experience (years)	$r = 0.239$	0.009 <sup>b</sup>
Weekly working hours	$r = 0.129$	0.164
Average monthly income	$F = 0.753, df = 2$	0.473
Average monthly expenditure	$F = 2.218, df = 2$	0.113
Working arrangement satisfaction	$r = 0.441$	<0.001 <sup>b</sup>
Performance	$\chi^2 = 19.105$	<0.001 <sup>b</sup>
Association of variables with performance		
Educational Qualification	$t = -3.653, df = 105.335$	<0.001 <sup>b</sup>
Marital status	$\chi^2 = 0.391$	0.763
Type of family	$t = -0.295, df = 116$	0.769
Number of family members	$t = -0.200, df = 116$	0.842
Total working experience (years)	$r = 0.16$	0.083
Weekly working hours	$r = 0.089$	0.338
Average monthly income	$F = 1.337, df = 2$	0.267
Average monthly expenditure	$F = 0.667, df = 2$	0.515
Working arrangement satisfaction	$\chi^2 = 1.587$	0.208
Job satisfaction	$\chi^2 = 19.105$	<0.001 <sup>b</sup>

Note: p Value: <sup>a</sup>significant at 0.05 level; <sup>b</sup>significant at 0.01.

Abbreviation:  $\chi^2$ , Pearson's Chi-square test; ANOVA, analysis of variance; df, degree of freedom; F, One way ANOVA test; r, Pearson's correlation test; t, Independent t-test;

We found that most of the participants were in the age group of 30 to 40 years and a positive correlation between the age of the respondent and job satisfaction ( $r = 0.196, n = 118, p = 0.033$ ) (Table 5). However, Arora conducted a study in India and found that the most satisfied employees were in the age group of 26–30 years followed by the age group >35 years.<sup>24</sup>

The current study revealed high job satisfaction among employees with less than three children and families of less than five members ( $\chi^2 = 6.425, df = 1, p = 0.028$ ;  $\chi^2 = 4.59, df = 1, p = 0.032$  respectively) (Table 4). This could be attributed to the limited exposure of employees to the COVID-19 virus while WFH not only safeguarded children but also enhanced their mental well-being and

job satisfaction by allowing them to properly care for their children. These results align with the findings from other studies, primarily focused on women employees in Malaysia and Pakistan, which share similar cultural backgrounds to Bangladesh.<sup>25,26</sup> In the context of lockdown, a study conducted in Spain (with more than 80% female respondents) on teleworking revealed employees with children expressed a high level of well-being but less job satisfaction.<sup>27</sup> Nevertheless, teleworking employees with children had to handle work and family demands simultaneously, perhaps hindering their capacity to focus on work without interruption.<sup>27</sup>

The current study found a positive relationship ( $r = 0.239, n = 118, p = 0.009$ ) between job satisfaction and the total working experience (in years) of the participants. This matches with the findings of the research done in Bangkok which showed a positive relationship between job satisfaction and tenure.<sup>28</sup> No significant relationship was found between average monthly income and expenditure with job satisfaction ( $F = 0.753, df = 2, p = 0.473$ ;  $F = 2.218, df = 2, p = 0.113$ ).

This study showed that the majority (66.95%) had a satisfactory to excellent level of performance with a mean score of  $18.40 \pm 2.018$  ranging from 13 to 24. Additionally, 66.9% of participants had satisfactory performance in all facets. The findings were similar to the result of the research done in Australia during COVID-19 which showed WFH was a largely positive experience, with 71% of respondents agreeing that they would prefer to work from home more often.<sup>2</sup> A meta-analysis on telework effectivity found that WFH increases productivity and is beneficial for organizations.<sup>29,30</sup> However, these results contradicted earlier studies conducted on different professionals during COVID-19 which found a decline in productivity among WFH employees.<sup>31–33</sup>

Among the sociodemographic variables, a significant association was found between the educational qualification and performance of the respondents in this study ( $t = -3.653, p < 0.001$ ) shown in Table 5 which suggested that highly qualified respondents had a higher level of performance. Whereas, the performance level was not significantly associated with the type of family, number of children, number of family members, or total working experience. These findings were similar to the results of the studies done on work-life balance and productivity before & during COVID-19.<sup>6,26</sup> The current study found no significant association of work arrangements with performance level ( $\chi^2 = 1.587, p = 0.208$ ). However, Nakrošienė et al. studied telework outcomes in Lithuania and indicated that the effective setup of the work arrangements at home strengthened all measured outcomes of work from home.<sup>34</sup>

Employed women who experienced work from home during the COVID-19 pandemic reported a strong association of their job satisfaction with their self-reported performance ( $\chi^2 = 19.05, df = 1, p < 0.001$ ). Similarly, research was done to see the impacts of telework on productivity which reflected that job satisfaction was strongly associated with performance.<sup>34,35</sup>

The study revealed positive job satisfaction and performance among women of diverse professions while WFH. It is noteworthy that there hasn't been a similar evaluation conducted previously in Bangladesh

though the work-life balance challenges during the pandemic were explored. The participants of this study reported on both the benefits and challenges of WFH but detailed analysis was limited due to time constraints. Additionally, the study sample only included respondents from Dhaka Metropolitan City, therefore these findings are difficult to generalize; thus, potentially hindering their representation of the country's entire female workforce regarding job satisfaction and performance. Furthermore, self-reported performance data raised a potential concern of overestimation, as individuals engaged in intensive work might be inclined to inflate their achievements. Moreover, performance data could not be collected from the relevant authority due to the restrictions and multiple lockdowns during the COVID-19 pandemic, so veracity might be in question.

Despite these limitations, this research suggests that WFH could be a valuable option for employed women who face difficulties balancing household chores and productive office work. Moreover, WFH can also offer flexibility and continued productivity during life stages like pregnancy, the postpartum period, and even menstruation cycles, both in the short and long term.

## 5 | CONCLUSIONS

Based on this study's findings, employed women of various occupations exhibited a high degree of job satisfaction and performance, particularly in terms of balancing office work and household responsibilities, while WFH during the COVID-19 pandemic. The results of this study can be suggested to plan for future organizational strategies incorporating telework as a viable option for women employees beyond the pandemic. This study's findings may provide insight into factor analysis related to job satisfaction and performance while teleworking in our sociocultural context. However, given the limited scope of this study conducted in Dhaka with a small sample size, further longitudinal research on a larger scale is recommended. Additionally, comparative studies between telework and office-based employees could offer valuable insights into job satisfaction and performance.

### AUTHOR CONTRIBUTIONS

**Hurul Jannat:** Conceptualization; methodology; data curation; investigation; formal analysis; writing—original draft. **KM Saif-Ur-Rahman:** Writing—reviews and editing. **Irfan Nowroze Noor:** Methodology; formal analysis; writing—review and editing. **Afroza Begum:** Writing—review and editing.

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### CONFLICT OF INTEREST STATEMENT

The authors declare no conflict of interest.

### DATA AVAILABILITY STATEMENT

All authors have read and approved the final version of the manuscript have full access to all of the data in this study and take complete responsibility for the integrity of the data and the accuracy of the data analysis. The data supporting this study's findings are available on request from the corresponding author.

### ETHICS STATEMENT

The protocol for this study was approved by the Institutional Review Board of the National Institute of Preventive and Social Medicine (NIPSOM) and the memorial number: NIPSOM/IRB/2020/1225. Written informed consent was taken from all the participants who took part in this study. All research procedures involved humans only, no animal was harmed during the study procedure.

### TRANSPARENCY STATEMENT

The lead author Hurul Jannat affirms that this manuscript is an honest, accurate, and transparent account of the study being reported; that no important aspects of the study have been omitted; and that any discrepancies from the study as planned (and, if relevant, registered) have been explained.

### ORCID

Hurul Jannat  <http://orcid.org/0000-0003-3854-8103>

KM Saif-Ur-Rahman  <http://orcid.org/0000-0001-8702-7094>

Irfan Nowroze Noor  <http://orcid.org/0000-0002-1004-9161>

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