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Original Article

Prevalence and determinants of depression, anxiety, and stress among IT professionals working from home in Kerala, India

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ABSTRACT

Introduction: Working from Home (WFH) has become a defining aspect of the modern work landscape, especially in the wake of the COVID-19 pandemic. The Information Technology (IT) sector, seamlessly transitioned to WFH during the pandemic, thanks to both the urgent need and the technological infrastructure supporting this alternative work arrangement. The objectives of this study were to measure the prevalence and factors associated with anxiety, stress and depression among IT professionals working from home in two districts of Kerala.

Methods: Data was collected from 400 IT professionals working in four IT companies located in two districts in Kerala, through a simple random sampling method between December 2022 and March 2023. The study questionnaire consisted of two parts - the socio demographic and the Depression, Anxiety, Stress Scale (DASS) 21. Data was analyzed using IBM Statistical Package for Social Sciences V20. A p-value < 0.05 was considered statistically significant.

Results: Among the study participants, 48.5% were female, majority were between 22 and 45 years and 80.25% were undergraduates. The prevalence of depression among IT professionals WFH was found to be 22.75%; 0.75% had severe and 1.5% had extremely severe depression. The prevalence of anxiety was 24%; 1.75% had severe and 2.5% had extremely severe anxiety. The prevalence of stress was 11%; 1.5% had severe and 0.25% had extremely severe stress. There was a significant association between depression, anxiety and stress with employees in the low-income range, those working on night shift and those without a weekly day-off.

Conclusion: This first study on Kerala IT professionals working from home highlights that lower income, night shifts, lack of weekly offs, substance abuse, physical inactivity, and long working hours are significantly linked to poor mental health. It underscores the need for organizational interventions to promote work-life balance, healthy lifestyles, adequate rest, and accessible mental health support to safeguard both employee well-being and productivity.

Keywords: Anxiety, depression, IT professional, stress, work from home

Introduction

The rapid growth of the Information Technology (IT) sector has transformed the way people work globally, with arrangements such as working from home (WFH) becoming increasingly common in recent years.[1,2] In India, especially in the state of Kerala, better internet access, digital tools, and flexible company policies have made it possible for employees to do their job effectively without constantly being in the office.[3] WFH has its

benefits – no daily commute, greater control over one's schedule, and the comfort of home.[4]

But it also has its own set of problems, especially mental health. Longer working hours, workload overload, and fewer opportunities to socialise with co-workers could be caused by the boundary between work and personal life becoming less defined.[5] These factors can lead to feelings of loneliness, inability to maintain work-life balance, and higher susceptibility to mental illness such as depression, anxiety, and stress.[6] Additionally, irregular timing, night shifts, and the absence of regular week breaks can also add to psychological distress.[2,5]

It is essential to know the effects of mental health outcomes of active WFH in the IT sector as the health of workers is essential in maintaining productivity and employee satisfaction. This research aims to assess the prevalence and factors associated with depression, anxiety, and stress among IT professionals who work from home in selected districts of Kerala.

Methods

The study was conducted among IT professionals aged 20 to 54 years and actively engaged in WFH. The study area included Kerala's dynamic IT landscape, encompassing four IT companies that agreed to part in the study. Among the four IT companies, two were based in Ernakulam and two in Calicut, providing diverse geographical representation.

The sample size was calculated based on the formula:

$$n = \frac{Z\,\alpha/2pq}{d^2}$$

Assuming the maximum variability, which is equal to 50% (P = 0.5), and taking a 95% confidence level with ±5% precision, the required sample size was calculated using the following details: p = 0.5 and hence q = 1 - 0.5 = 0.5; e = 0.05 and z = 1.96. The calculated sample size was 385 and was rounded off to 400. Based on our previous experience, we assumed that the non-response rate of 25%, 500 employees were contacted to participate in the study. This was a cross-sectional study; the names of all the employees involved in WFH were obtained from the human resources (HR) department for all four companies, and 125 employees were chosen in each company using a computer-generated simple random sampling technique. A total of 500 employees were selected as study participants. Data was collected through a structured questionnaire, the first part included the socio-demographic details, including the working hours, days, and personal habits, including exercise for 30 minutes or more apart from work at the office, and the second part included the Depression, Anxiety, and Stress Scale – 21 (DASS-21) questionnaires. The DASS-21 is designed to measure three negative emotional states i.e., depression, anxiety and stress. It contains 21 items under three subscales, which assess symptoms of depression (dysphoria, hopelessness, devaluation of life, self–deprecation, lack of interest/ involvement, anhedonia, and inertia), anxiety (autonomic arousal, skeletal muscle effects, situational anxiety, and subjective experience of anxious affect) and stress (difficulty relaxing, nervous arousal and being easily upset/ agitated, irritable/over-reactive, and impatient) indicate whether any of these issues are having a significant effect on the person's life at present. The degree to which respondents endorsed the symptoms over the course of the last week is rated on a scale that ranges from 0 (did not apply to me at all) to 3 (applied to me very much or most of the time). Before interpreting the scores, the summed numbers in each sub-scale need to be multiplied by 2.

Those participants who had not signed the consent form or answered all the questions were excluded.

Recommended cut-off scores for conventional severity labels (normal, moderate, severe) are as follows:

Severity Level	Depression	Anxiety	Stress
Normal	0-9	0-7	0-14
Mild	10-13	8-9	15-18
Moderate	14-20	10-14	19-25
Severe	21-27	15-19	26-33
Extremely severe	28+	20+	34+

Ethical clearance was obtained from the Institutional Ethics Committee (no. 187/2023). The statistical analysis was performed using Microsoft Excel and IBM Statistical Package for Social Sciences V20.0. The categorical data were presented in the form of frequency tables along with percentages, and the association between the socio-demographic factors, depression, anxiety, and stress was computed along with a 95% confidence interval. Pearson's chi-square test was applied, and results were considered statistically significant wherever $p < 0.05$.

Results

In the present study, among 400 IT professionals, 205 (51.25%) were male and 195 (48.5%) were female. A majority, 380 (95%), were aged between 20 and 45 years, and 321 (80.25%) had undergraduate qualifications. The income of 172 (42.5%) participants was in the range of thirty thousand to sixty thousand, 209 (52.25%) between sixty thousand to one lakh, and 21 (5.25%) received more than 1 lakh per month. Among the study participants, 276 (69%) were married and 141 (35.25%) had at least one child. Consumption of tobacco and alcohol was positive among 33 (8.25%) and 76 (19%), respectively. Regarding exercise for more than 30 minutes a day, at least 5 days a week, 195 (48.75%) respondents followed this practice.

With respect to working hours, 154 (38.5%) IT professionals worked 8 hours per day, 180 (45%) people worked 10 hours and 66 (16.5%) worked more than 10 hours; 209 (52.25%) worked between 8 pm and 8 am and 388 (97%) IT Professionals had a day off weekly.

Based on self-reported medical history, among the 400 IT professionals, 9 (2.25%) had hypertension, 10 (2.5%) had diabetes, 47 (11.75%) had high BMI, 18 (4.5%) had high cholesterol, and 5 (1.25%) had problems related to thyroid and skin. Among women employees, 36 (9%) had irregular menstrual cycles and 18 (4.5%) had gynaecological issues.

The prevalence of depression among the study population was 90(22.75%); 28 (7%) had mild, 54 (13.5%) had moderate, 3 (0.75%) had severe, and 6 (1.5%) had extremely severe depression.

The prevalence of anxiety among the study population was 96 (24%); mild anxiety among 16 (4%), moderate among 63 (15.75%), severe in 7 (1.75%), and extremely severe in 10 (2.5%).

The prevalence of stress among the study population was found to be 44 (11%). Among them, 24 (6%) had mild, 13 (3.25%) had moderate, 6 (1.5%) had severe, and 1 (0.25%) had extremely severe stress.

Table 1: Association of sociodemographic variables with depression

Factors	**Respondent with depression**	**Respondents without depression**	**Total**	**P value**
Gender				
Male	45 (21.95%)	160 (78.05%)	205	0.08
Female	45 (23.08%)	150 (76.92%)	195	
Education status				
Undergraduate	74 (23.05%)	247 (76.95%)	321	0.88
Postgraduate	17 (21.52%)	62 (78.48%)	79	
Monthly income				
30000 to 60000	28 (16.47%)	142 (83.53%)	170	**0.03***
60000 to 80000	40 (24.84%)	121 (75.16%)	161	
80000 to 100000	17 (34.69%)	32 (65.31%)	49	
>100000	6 (30%)	14 (70%)	20	
Working hours				
8 hrs	29 (18.83%)	125 (81.17%)	154	0.30

10 hrs	44 (24.44%)	136 (75.56%)	180	
More than 10 hrs	18 (27.27%)	48 (72.73%)	66	
Working between 8 pm and 8 am				
Yes	27 (13.64%)	171(86.36 %)	198	**0.00 ***
No	70 (34.65%)	132 (65.35%)	202	
Having a weekly day off				
Yes	85 (21.91%)	303 (78.09)	388	**0.02 ***
No	6 (50%)	6 (50%)	12	
Marital status				
Single	22 (17.74%)	102 (82.26%)	124	0.12
Married	69 (25%)	207 (75%)	276	
Tobacco consumption				
Yes	8 (24.24%	25 (75.76%)	33	0.82
No	83 (22.63%)	284 (77.37%)	367	
Alcohol consumption				
Yes	20 (26.32%)	56 (73.68%)	76	0.44
No	71(21.91 %)	253 (78.09%)	324	
Performing any exercise for more than 30 minutes apart from office work				
Yes	44 (22.56%)	151 (77.44%)	195	**0.03 ***
No	47 (22.93%)	158 (77.07%)	205	

Factors associated with depression, anxiety, and stress were analysed using the chi-square test.
*Statistically significant

According to the data in Table 1, there is no statistically significant association between depression and gender, educational status, or working hours. There was a significant association between employees in low-income households, those working night shifts, those without a weekly day off, and those who were not exercising. These findings suggest that those with low income, working on night shift, and having no weekly day off were the factors associated with depression among IT professionals working from home.

Table 2: Association of sociodemographic variables with anxiety

Factors	Respondent with Anxiety	Respondents without Anxiety	Total	P value
Gender				
Male	52 (25.37%)	153 (74.63%)	205	0.48
Female	43 (22.05%)	152 (77.95%)	195	
Education status				
Undergraduate	75 (23.36%)	246 (76.64%)	321	0.55
Postgraduate	21 (26.58%)	58 (73.42%)	79	
Monthly income				
30000 to 60000	24 (14.12%)	146 (85.88%)	170	**0.00 ***
60000 to 80000	44 (27.33%)	117 (72.67%)	161	
80000 to 1 lakh	21(42.86 %)	28 (57.14%)	49	
Above 1 lakh	7 (35%)	13 (65%)	20	
Working hours				
8 hrs	32 (20.78%)	122 (79.22%)	154	0.40
10 hrs	45 (25%)	135 (75%)	180	
More than 10 hrs	19 (28.79%)	47 (71.21%)	66	
Working between 8 pm and 8 am				
Yes	75 (35.89%)	134 (64.11%)	209	**0.00 ***
No	21 (10.99%)	170 (89.01%)	191	
Having a weekly day off				
Yes	90 (23.2%	298 (76.8%)	388	**0.04 ***
No	6 (50%)	6 (50%)	12	
Marital status				
Single	23 (18.55%)	101(81.45 %)	124	0.10
Married	73 (26.45%)	203 (73.55%)	276	
Tobacco consumption				
Yes	15 (45.45%)	18 (54.55%)	33	**0.00 ***
No	81 (22.07%)	286 (77.93%)	367	

Alcohol consumption				
Yes	26 (34.21%)	50 (65.79%)	76	**0.02***
No	70 (21.6%)	254 (78.4%)	324	
Performing any exercise for more than 30 minutes apart from office work				
Yes	41 (21.03%)	154 (78.97%)	195	0.10
No	55 (26.83%)	150 (73.17%)	205	

*Statistically significant

Factors associated with depression, anxiety, and stress were analysed using the chi-square test.

The prevalence of anxiety did not have a significant association with gender, educational status, and marital status. However, lower income, long working hours, working on night shifts, having no weekly day-off, consuming tobacco and alcohol had significant associations with anxiety. Significantly lower anxiety levels were seen among those with higher income levels, having a weekly day off, and among those not consuming tobacco or alcohol.

Table 3: Association of sociodemographic variables with stress

Factors	Respondent with Stress	Respondents without Stress	Total	P value
Gender				
Male	53 (25.85%)	152 (74.15%)	205	0.48
Female	44 (22.56%)	151 (77.44%)	195	
Education status				
Undergraduate	78 (24.3%)	243 (75.7%)	321	1.0
Postgraduate	19 (24.05%)	60 (75.95%)	79	
Monthly income				
30000 to 60000	28 (16.47%)	142 (83.53%)	170	**0.00***
60000 to 80000	52 (32.3%)	109 (67.7%)	161	
80000 to 1 lakh	13 (26.53%)	36 (73.47%)	49	
Above 1 lakh	4 (20%)	16 (80%)	20	
Working hours				
8 hrs	22 (33.33%)	44 (66.67%)	66	0.085
10 hrs	45 (25%)	135 (75%)	180	
More than 10 hrs	30 (19.48%)	124 (80.52%)	154	
Working between 8 pm and 8 am				
Yes	71 (33.97%)	138 (66.03%)	209	**0.00***
No	26 (13.61%)	165 (86.39%)	191	
Having a weekly day off				
Yes	92 (23.71%)	296 (76.29%)	388	0.173
No	5 (41.67%)	7 (58.33%)	12	
Marital status				
Single	23 (18.55%)	101 (81.45%)	124	0.079
Married	74 (26.81%)	202 (73.19%)	276	
Tobacco consumption				
Yes	24 (31.58%)	52 (68.42%)	76	0.104
No	73 (22.53%)	251 (77.47%)	324	
Alcohol consumption				
Yes	24 (31.58%)	52 (68.42%)	76	0.104
No	73 (22.53%)	251 (77.47%)	324	
Performing any exercise for more than 30 minutes apart from office work				
Yes	45 (21.95%)	160 (78.05%)	205	0.641
No	52 (26.67%)	143 (73.33%)	195	

Factors associated with depression, anxiety, and stress were analysed using the chi-square test.

*Statistically significant

Table 3 data reveals that there's no statistically significant association between stress and gender, educational status, working hours and marital status. However, there is a significant association between stress and those with higher income, working night shifts and tobacco consumption. Those who exercise regularly and have a weekly day off were also found to be protected against stress.

Discussion

This cross-sectional study assessed the prevalence and contributing factors of depression, anxiety, and stress among IT professionals working from home (WFH) in Kerala during the COVID-19 pandemic. Our findings showed that 11% had stress, 24% reported anxiety, and 22.75% experienced depression. These psychological distress levels are in line with earlier studies reporting increased mental health problems among IT professionals during the pandemic.[7] Reduced social interactions, fear of acquiring the disease either themselves or family members, including elderly parents, morbidity and mortality associated with the disease, information overload from social media, social-domestic dynamics at home, prolonged screen exposure, and changes in work routines are likely to be contributing factors.

The study's findings on the mental health burden are parallel with a study conducted among software engineers in South India, which found that 8.1% of them had severe psychological stress and 32.4% were distressed.[8] In Chennai, more than 55% of female IT professionals reported moderate to severe stress[9], while another study in Delhi found that 35% of IT professionals were stressed.[10] Similar increases in stress, anxiety, and depression among working populations during the pandemic were also documented by a global meta-analysis.[11] These numbers highlight the negative psychological toll of remote work environments, especially in industries like information technology that are deadline-driven and fast paced.[12]

This study showed significant associations between psychological distress and weekly vacation time, work shifts, and income levels. People who earn less than ₹60,000 per month were more likely to suffer from depression and anxiety. This aligns with findings that show a substantial correlation between mental health problems and financial insecurity during the pandemic because of employment instability, fear of retrenchment, and rising living expenses.[13]

Notably, those who worked nights reported significantly higher levels of stress, anxiety, and depression. Hormonal imbalances, emotional dysregulation, changes in the circadian rhythm, alterations in eating habits, and sleep disturbances have all been negatively associated with shift work, particularly night work.[14] IT professionals, due to global time zones and client demands, often engage in nocturnal schedules, making them more vulnerable to these risks.

In this study, 45% of the respondents worked more than 10 hours a day. Remote workers' mental fatigue and burnout have been linked to extended work hours.[15] Moreover, in a work-from-home environment, extended working hours and blurred work-life boundaries lead to diminished recovery time and increased stress.[16]

In contrast to some earlier research that suggested women experienced higher levels of stress [(4)], this study found no discernible gender difference. This could be because of shared household duties during lockdowns, flexible timetables, or reduced commuting. Similarly, there was no significant association between stress and marital status, which may be because of the perceived emotional support that family members gave throughout the crisis.[17]

Higher levels of anxiety and depression were observed among participants who did not engage regularly in physical activity. This is consistent with research indicating that engaging in moderate-to-intense physical activity helps prevent psychological distress during isolation.[18] Even in a remote setting, promoting regular movement can be a successful mental health intervention. The production of endorphins and the regulation of the hypothalamic-pituitary-adrenal (HPA) axis through physical activities help overcome anxiety and depression.

Furthermore, the use of substances was also found to have a close connection with anxiety. The participants who use tobacco and alcohol were found to be more likely to report anxiety. In previous studies, such behavior could be a coping

mechanism that ultimately exacerbates anxiety.[10]

Sudden technological change, frequent software updates, and constant need for skill enhancement are features of the IT sector. Such personnel going through this continuous transformation might develop a fear of becoming obsolete and suffer from ongoing anxiety and tension.[19,20] The absence of human interaction in working from home and the isolating nature of programming or software testing tasks might also predispose IT professionals to depression.[17]

The study emphasizes the critical need for IT professionals to have access to mental health care services. Instituting weekly off days, encouraging physical well-being, providing counseling, and offering employee assistance programs are some healthy practices that can be explored and adopted as standard procedures by organizations. Developing a supportive virtual work culture with assertive expectations and proper communication can also alleviate feelings of loneliness and stress.[21]

Strengths and Limitations

Strength:

1. This research is one among the few to investigate the prevalence and predictors of depression, anxiety and stress among Kerala's work-from-home IT professionals with the aid of a standard and validated instrument. (DASS-21)

2. The research involved samples from more than one firm in two districts. Thus, it covered a diverse sample, enhancing the generalizability in the region.

Limitation:

1. The participants were limited to IT professionals in Kerala, which may reduce the applicability of findings to other regions and industries.

2. The data were collected through a self-reported questionnaire, which may be subject to recall bias.

Conclusion

It was the first study that investigated the burden of depression, anxiety, and stress among Kerala IT professionals who are working from home. The implications of this research are well defined, indicating that lower income, night shifts, absence of a weekly day off, substance abuse, physical inactivity, and extended working hours are significantly associated with adverse mental health outcomes. The implications highlight the need for organizational intervention in promoting work-life balance, providing adequate rest breaks, fostering healthy lifestyle habits, and offering easily accessible mental health support services. Improving these factors is imperative not only to protect the well-being of employees but also to enhance productivity and performance in the rapidly evolving IT sector.

Recommendations:

- IT firms should encourage a work-life balance, flexible working hours, fixed time shifts, and designated off-days every week.
- Open communication and positive work cultures can reduce isolation and improve mental well-being.
- Encouragement of physical activity and stress management techniques (including mindfulness and breathing techniques) can reduce depression, anxiety, and stress.
- Offering access to mental health services, including counselling and employee assistance programs, is essential.
- Knowledge of psychological issues in WFH environments can inform public health policy and enhance efficiency.

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References

1. Bloom N, Liang J, Roberts J, Ying ZJ. Does working from home work? Evidence from a Chinese experiment. Q J Econ. 2015;130(1):165-218. Available from: https://doi.og/ 10.1093/qje/qju032
2. Oakman J, Kinsman N, Stuckey R, Graham M, Weale V. A rapid review of mental and physical health effects of working at home: how do we optimise health? BMC Public Health. 2020;20(1):1825. Available from: https://doi.org/10.1186/s12889-020-09875-z
3. Xiao Y, Becerik-Gerber B, Lucas G, Roll SC. Impacts of working from home during COVID-19 pandemic on physical and mental well-being of office workstation users. J Occup Environ Med. 2021;63(3):181-90. Available from: https://doi.org/10.1097/JOM.0000000000002097
4. Grant CA, Wallace LM, Spurgeon PC. An exploration of the psychological factors affecting remote e-worker's job effectiveness, well-being and work-life balance. Employee Relat. 2013;35(5):527-46. Available from: https://doi.org/10.1108/ER-08-2012-0059
5. Tavares AI. Telework and health effects review. Int J Healthc. 2017;3(2):30-36. Available from: https://doi.org/10.5430/ijh.v3n2p30
6. Gajendran RS, Harrison DA. The good, the bad, and the unknown about telecommuting: meta-analysis of psychological mediators and individual consequences. J Appl Psychol. 2007;92(6):1524-41. Available from: https://doi.org/10.1037/0021-9010.92.6.1524
7. Xiao Y, Becerik-Gerber B, Lucas G, Roll SC. Impacts of working from home during COVID-19 pandemic on physical and mental well-being of office workstation users. J Occup Environ Med. 2021;63(3):181–90. Available from: https://doi.org/10.1097/JOM.0000000000002097.
8. Sivaraman G, Mahalakshmy T, Kalaiselvan G. Occupation related health hazards: online survey among software engineers of South India. Indian J Med Spec. 2011;2(1):21–6. Available from: https://doi.org/10.7713/ijms.2011.0021
9. Vimala B, Madhavi C. A study on stress and depression experienced by women IT professionals in Chennai, India. Psychol Res Behav Manag. 2009;2:81–91. Available from: https://doi.org/10.2147/prbm.s6049
10. Darshan MS, Raman R, Rao TSS, Ram D, Annigeri B. A study on professional stress, depression and alcohol use among Indian IT professionals. Indian J Psychiatry. 2013;55(1):63–9. Available from: https://doi.org/10.4103/0019-5545.105512
11. Salari N, Hosseinian-Far A, Jalali R, Vaisi-Raygani A, Rasoulpoor S, Mohammadi M, et al. Prevalence of stress, anxiety, depression among the general population during the COVID-19 pandemic: a systematic review and meta-analysis. Glob Health. 2020;16(1):57. Available from: https://doi.org/10.1186/s12992-020-00589-w
12. Ahuja V, Rathore S. A study of role stress among the IT professionals in India: examining the impact of demographic factors. Int J Hum Cap Inf Technol Prof. 2015;6(2):1–13. Available from: https://doi.org/10.4018/IJHCITP.2015040101
13. Griffiths D, Sheehan L, van Vreden C, Petrie D, Grant G, Whiteford P, et al. The impact of work loss on mental and physical health during the COVID-19 pandemic: baseline findings from a prospective cohort study. J Occup Rehabil. 2021;31(3):455–62. Available from: https://doi.org/10.1007/s10926-021-09957-7
14. Takahashi M. Prioritizing sleep for healthy work schedules. J Physiol Anthropol. 2012;31(1):6 Available from: https://doi.org/10.1186/1880-6805-31-6
15. McDowell CP, Herring MP, Lansing J, Brower C, Meyer JD. Working from home and job loss

due to the COVID-19 pandemic are associated with greater time in sedentary behaviors. Front Public Health. 2020;8:597619. Available from: https://doi.org/10.3389/fpubh.2020.597619

16. Oakman J, Kinsman N, Stuckey R, Graham M, Weale V. A rapid review of mental and physical health effects of working at home: how do we optimise health? BMC Public Health. 2020;20:1825. Available from: https://doi.org/10.1186/s12889-020-09875-z
17. Johnson R. Psychological disorders among IT professionals in Kerala. Int J Eng Lit Soc Sci. 2023;8:236–40. Available from: https://doi.org/10.22161/ijels.81.29
18. Schuch FB, Bulzing RA, Meyer J, Vancampfort D, Firth J, Stubbs B, et al. Associations of moderate to vigorous physical activity and sedentary behavior with depressive and anxiety symptoms in self-isolating people during the COVID-19 pandemic: a cross-sectional survey in Brazil. Psychiatry Res. 2020;292:113339. Available from: https://doi.org/10.1016/j.psychres.2020.113339
19. Archana G, Arjun PG. A study of depression and anxiety problems among IT-professionals. Int J Curr Res. 2015;7(11):22478–82. Available from: https://www.journalcra.com/sites/default/files/issue-pdf/11458.pdf
20. Thong JYL, Yap CS. Information technology adoption by small business: an empirical study. In: Kautz K, Pries-Heje J, editors. Diffusion and Adoption of Information Technology. 1996:160–75. Available from: https://doi.org/10.1007/978-0-387-34982-4_12
21. Shepherd-Banigan M, Bell JF, Basu A, Booth-LaForce C, Harris JR. Workplace stress and working from home influence depressive symptoms among employed women with young children. Int J Behav Med. 2016;23(1):102–11. Available from: https://doi.org/10.1007/s12529-015-9482-2