



PSYCHOLOGICAL PROBLEMS AND BURNOUT AMONG PROFESSIONALS WORKING FROM HOME DURING THE COVID-19 PANDEMIC: A WEB-BASED CROSS-SECTIONAL STUDY

Psychiatry

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KEYWORDS

INTRODUCTION:

Coronavirus caused an outbreak that was first identified in Wuhan City, Hubei Province, China. Since then, the virus has spread to nearly every country, leading the World Health Organisation (WHO) to declare this as a pandemic on March 11, 2020. The COVID-19 virus, SARS-CoV-2, can induce a variety of symptoms, including fever, dry cough, exhaustion, anosmia, and, in severe cases, severe acute respiratory syndrome.(1) According to current evidence, COVID-19 virus is primarily transmitted between people through respiratory droplets and contact routes.(2) Considering the ease of transmission and, therefore, consequent overcrowding of the health systems (3), many nations were forced to transition from easy safety precautions to difficult ones, such as encouraging hand washing and mask use for personal protection to social isolation, lockdown, and social distance, which swiftly became a normal part of people's daily life.(4) Schools were closed as a result, and businesses began requesting that their employees work from home whenever feasible.(5) Working remotely from a non-office location, typically an employee's house, is known as telecommuting or working from home. Working from home has probably become one of the most popular methods for reducing unemployment, keeping society functioning, and protecting the populace from the COVID-19 virus during the pandemic.(6)

For some, working from home has been hassle-free during the past year. Others, however, have not found it to be the most enjoyable experience yet. Even while WFH is a "new normal," it is nevertheless entirely certain that it is neither a universal recipe nor a "one size fits all" situation.

Some professionals contend that working from home may enhance successful employment outcomes.(7) However, there needs to be more research on whether the work-from-home policy always has positive effects on employee behaviour. In terms of job engagement and burnout, as well as the implications of those disparities on mental health and work outcomes, there are notable differences between individuals who work at their workplaces and those who work from home.(8,9,10)

Home-based workers frequently report considerable work-life interference.(9) This interference influences job absorption and raises the amount of employment demand. Additionally, interference between work and family life is likely to reduce the benefits of involvement and increase the drawbacks of burnout. As a result, working from home often has drawbacks.

Burnout is a term used to represent a number of unfavourable situations associated with the workplace, including decreased productivity, depersonalization, and exhaustion.(11) Employees who work from home struggle to combine responsibilities at home and at work because there isn't a clear shift in location and there aren't clearly defined working hours.(12) As a result, employees who work from home commonly deal with significant interferences between work and home.(9) Role conflicts that result from conflicting work and home demands are what are known as work-home interference. (13). According to a study by Delanoeije et al.,(9) on days when workers work remotely, they migrate more frequently from work to home and from home to work, showing that working from home tends to interfere with work life more than working in an office setting.

Various studies have shown that healthcare professionals presented a higher risk of developing posttraumatic stress disorder, especially

those with less experience in their profession (14,15), also anxiety, depression, and insomnia symptoms during the pandemic. (16,17,18,19) Additionally, Vizheh et al.,(20) noted that despite the fact that psychological illnesses were highly prevalent among healthcare professionals, the majority of them were not obtaining psychological support or engaging in activities to enhance their mental health throughout the pandemic.

In the present, very few studies from India have examined psychological problems, stress, and burnout among professionals. These studies primarily involve professionals from the medical field - resident doctors, interns and medical students. Studies on professionals who work from home are even less common.

There is a need to evaluate mental health issues given the sparse data from India and the expanding public mental health challenges. A better awareness of mental health concerns can aid in changing workplace regulations. Due to the limitations imposed by the pandemic, the current study sought to evaluate the numerous psychological issues (depression, perceived stress, and burnout) among professionals who work from home.

AIM:

This study aims to comprehend the impact on the mental health well being of professionals working remotely during the covid-19 pandemic in India.

The study's goal was to learn more about the relationships between stress, work-related burnout, and forced distant labour brought on by COVID-19 pandemic-era social distancing initiatives and orders to stay at home.

METHODOLOGY:

Study Design:

The study was a web-based, cross sectional survey conducted in the month of August 2021 and was open to respondents for a period of 10 days from the 20th August, 2021 till the 30th August, 2021. All participants needed to have access to the Internet and were supposed to be using Social Media Platforms like WhatsApp, Facebook, Instagram, etc.

Sampling Technique and Data Collection:

The study utilised "Snowball Sampling Technique" wherein the Google Forms Questionnaire was distributed among the respondents via Social Media Platforms like WhatsApp, Instagram, Facebook and Twitter through a web-link.

Each respondent was required to sign-in into his/her Google Account to be able to take the survey. The participants were also requested to share the web-link with their contacts and ask their contacts to share the web-link further so as to increase the sample size.

A total of 106 responses were collected across a period of 10 days from the 20th August, 2021 till the 30th August, 2021.

Inclusion and exclusion criteria:

Professionals working remotely after the covid-19 restrictions were recruited in this web based study. Those who were of 18 years and above were included and less than 18 years or people working remotely even before the pandemic were excluded. Participants who gave voluntary, informed consent were only included.

Development of the Questionnaire:

The questionnaire was made in the English language through the "Google Forms" platform, a part of the online survey of apps provided by Google Inc. Mountainview, California, U.S.A.

The invitation message stated that the participation was voluntary, and completion of survey reflected their consent to participate. Additionally, it also explained the purpose of the survey along with an option to "opt out." Participants who agreed to volunteer completed the survey that took approximately 20 minutes to complete. Each survey included three instruments on mental health- screening tool for depression, burnout and perceived stress along with questions on participant demographics, health behaviour (exercise, sleep, drinking and smoking), finances (income status), work (industry currently employed in, number of working hours, etc), relationships (marital status, relationship quality) and history of any psychiatric illness in the individual or family.

All questions in the survey were mandatory except for "Name." This was done to allow protection of the identity of the respondent if he/she wished. The description in the form clearly explained that any personal information will not be shared with a third party under any circumstances. To make sure the responses were genuine and not repeated more than once by a single person, the "Limit to 1 response" feature of Google Forms was activated.

Instruments used:

1. Patient Health Questionnaire-9 (PHQ-9)

The PHQ-9 is the 9-item self report depression module from the full PHQ. Both a preliminary diagnosis and dimensional measurements of depression symptoms can be made using it. One of the diagnostic standards for a major depressive episode is represented by each item. The established scoring method and the 9 elements were both directly incorporated into the questionnaire. These questions comprised the questions in section 2. With response options ranging from 0 for "not at all" to 3 for "almost every day," respondents report whether or not each symptom has manifested over the previous two weeks. To administer, let 5 to 10 minutes. (21)

2. Maslach Burnout Inventory (MBI)

The Maslach Burnout Inventory is the most commonly used tool to self-assess risk of occupational burnout. Christina Maslach and Susan E. Jackson created the MBI in its initial form with the intention of evaluating a person's burn experience. Exhaustion (9 items), depersonalization (5 items), and personal achievement (8 items) are among the 22 items that make up the MBI's three subscales. All MBI items are scored using a 7 level frequency rating from 0 = "never" to 6 = "daily." The score from each subscale is considered separately and are not to be combined into a single, total score.

These 22 items, written in the form of statements about personal feelings and attitudes were directly incorporated in the survey comprising sections 4, 5 and 6 of the survey. (22)

3. Perceived Stress Scale (PSS)

Stress was assessed using PSS among the participants and to determine the severity of the same. The PSS comprises 10 questions which were directly used in the questionnaire along with the established scoring system that ranges from 0 to 4 with the responses being "never", "almost never", "sometimes", "fairly often" and "very often" respectively. Individual scores on the PSS can range from 0 to 40 and higher the score, higher is the perceived stress. Values between 0 and 13 are classified as "low stress," 14 and 26 as "moderate stress," and scores between 27 and 40 as "high perceived stress." Section 3 of the survey was made up of these inquiries. (23)

Statistical Analysis:

The data were recorded in the Microsoft Excel Spreadsheets (Microsoft Corporation, Redmond, WA, USA). The IBM SPSS programme, version 22, was used to conduct the statistical analysis (IBM Corporation, Armonk, NY, USA). For continuous data, means and standard deviation were calculated. A p value of less than 0.05 was regarded as statistically significant when used in a T-test to compare means.

Ethical Consideration:

Before doing the survey, participants were asked to voluntarily confirm that they wanted to engage in it, and the poll's purpose was laid

out for them. Participants were under no obligation to complete the survey and were free to leave at any point if they found any of the questions to be unpleasant. Throughout this examination, none of the methods were ever employed in a questionable manner; rather, they were all carried out in conformity with the 1964 Helsinki Declaration and its later amendments or other comparable ethical standards.

RESULTS:

Descriptive statistics:

Variable	Category	n	%
Age	20-30 yrs.	54	50.9%
	30-40 yrs.	20	18.9%
	40-50 yrs.	7	6.6%
	50-60 yrs.	21	19.8%
	> 60 yrs.	4	3.8%
Gender	Males	63	59.4%
	Females	43	40.6%
Marital Status	Married	53	50.0%
	Unmarried	52	49.1%
	Divorced	1	0.9%
Domicile	Urban	101	95.3%
	Rural	5	4.7%

Variable	Category	n	%
Educational Status	Graduate degree	42	39.6%
	Post Graduate degree / Professional	64	60.4%
Industry	Technical	47	44.3%
	Human Services	15	14.2%
	Agriculture / Business / Finance	44	41.5%
Income (per month)	< 50,000	30	28.3%
	50,000 - 1,00,000	40	37.7%
	> 1,00,000	36	34.0%

Variable	Category	n	%
How often do you exercise?	< 2 times/week	54	50.9%
	2-5 times/week	38	35.8%
	> 5 times/week	14	13.2%
Do you practice any form of meditation?	Multiple times / day	2	1.9%
	Once / day	7	6.6%
	Few times / week	14	13.2%
	Once / week	18	17.0%
	No	65	61.3%
How many hours do you sleep every night?	< 4 hrs.	4	3.8%
	4-6 hrs.	35	33.0%
	> 6 hrs.	67	63.2%
Do you currently drink or smoke?	Smoke	6	5.7%
	Drink	15	14.2%
	Both	21	19.8%
	Nil	64	60.4%
How many hours do you work per week?	< 50 hrs.	52	49.1%
	> 50 hrs.	54	50.9%
How much time do you devote to family after work every day?	< 1 hr.	25	23.6%
	1-3 hrs.	49	46.2%
	> 3 hrs.	32	30.2%
How much time do you devote for yourself after work every day?	< 1 hr.	53	50.0%
	1-3 hrs.	40	37.7%
	> 3 hrs.	13	12.3%
Do you have prior history of any psychiatric illness	Yes	19	17.9%
	No	87	82.1%

A total of 106 responses were recorded. The maximum number of respondents belonged to the age group 20-30 years. Out of the total study sample, 59.4% were males and 40.6% were females. 53 of the total (50.0%) were married, 49.1% were unmarried and 1 (0.9%) was divorced. Almost all of the participants (101, 95.3%) belonged to the urban background and only 5 (4.7%) were from the rural background. 60.4% of the respondents reported having a postgraduate degree and 39.6% were graduates. Respondents worked across a variety of occupations including technical fields (44.3%), agriculture/ business/ finance (41.5%) and human services (14.2%). Income was approximately equally distributed among those making less than fifty thousand, between fifty thousand and one lac and more than one lac rupees per month.

Approximately half of the respondents did not engage in any form of physical exercise for more than twice a week and 61.3% did not practise any form of meditation. Approximately two-thirds of the respondents slept for more than 6 hours per night and the remaining slept for 4-6 hours per night (33%), only a small percentage (3.8%) survived on less than 4 hours of sleep per night. Two thirds (60.4%) of the respondents neither smoked nor drank, with the remainder approximately equally distributed among either both (19.8%) or only

drinking (14.2%). Working hours were approximately equally distributed amongst those working less than 50 hours (49.1%) and more than 50 hours (50.9%). 46.2% devoted 1-3 hours to family after work every day, 30.2% devoted more than 3 hours and 23.6% devoted less than an hour. Half of the respondents had less than an hour for themselves after work, 37.7% took out 1-3 hours for themselves and only 12.3% had more than 3 hours reserved for themselves after work. Majority (82.1%) of the participants did not have prior history of any psychiatric illness.

Using the PSS recommended cut off scores to categorise severity levels, approximately half of the participants (56.6%) were categorised as having moderate stress and the other half was almost equally divided into the low and high stress categories.

On the basis of the PHQ-9 scale cut off score recommendations, 32.4% of the respondents had mild depression, 22.5% suffered from minimal, 20.6% had moderate, 14.7% had moderately severe and 9.8% had severe depression.

Inferential Statistics:

Mann-Whitney test was used to compare the mean scores of the three scales used in the study on the basis of working hours per week and h/o of psychiatric illness in the respondents while Kruskal-Wallis test was used to compare mean scores on the basis of participants' income levels, time spent with family after work and time spent for themselves after work.

Parameter	Working Hours / week	N	Mean	SD	Mean Diff	P-Value
PHQ-9	< 50 hrs.	52	8.92	6.02	-0.99	0.54
	> 50 hrs.	54	9.91	7.08		
PSS	< 50 hrs.	52	17.19	7.83	-2.64	0.16
	> 50 hrs.	54	19.83	8.25		
MBI-EE	< 50 hrs.	52	17.71	14.11	-4.09	0.12
	> 50 hrs.	54	21.80	13.86		
MBI-D	< 50 hrs.	52	6.73	6.75	-2.23	0.04*
	> 50 hrs.	54	8.96	6.94		
MBI-PA	< 50 hrs.	52	33.27	9.77	3.75	0.04*
	> 50 hrs.	54	29.52	10.88		

* - Statistically Significant

Scales	H/o psychiatric illness	N	Mean	SD	Mean Diff	P-Value
PHQ-9	Yes	19	12.74	5.79	4.04	0.01*
	No	87	8.70	6.54		
PSS	Yes	19	21.47	6.93	3.57	0.04*
	No	87	17.90	8.25		
MBI-EE	Yes	19	24.42	13.12	5.64	0.04*
	No	87	18.78	14.13		
MBI-D	Yes	19	10.32	7.54	2.99	0.08
	No	87	7.33	6.69		
MBI-PA	Yes	19	29.21	10.89	-2.62	0.28
	No	87	31.83	10.38		

* - Statistically Significant

Scales	Income	N	Mean	SD	Min	Max	P-Value
PHQ-9	< 50,000	30	11.07	6.75	1	23	0.24
	50,000 - 1,00,000	40	9.10	6.43	0	23	
	> 1,00,000	36	8.42	6.49	0	24	
PSS	< 50,000	30	19.83	8.67	2	36	0.30
	50,000 - 1,00,000	40	18.88	7.52	2	35	
	> 1,00,000	36	17.08	8.29	4	34	
MBI-EE	< 50,000	30	20.23	13.94	0	49	0.66
	50,000 - 1,00,000	40	21.50	15.95	0	54	
	> 1,00,000	36	17.53	11.83	0	43	
MBI-D	< 50,000	30	8.40	6.96	0	22	0.82
	50,000 - 1,00,000	40	8.28	7.76	0	30	
	> 1,00,000	36	6.97	5.90	0	19	
MBI-PA	< 50,000	30	27.07	9.81	10	48	0.01*
	50,000 - 1,00,000	40	31.43	10.82	5	48	
	> 1,00,000	36	34.86	9.50	13	48	

* - Statistically Significant

Comparison of mean scores of PHQ-9, PSS & MBI scale based on the Time spent for the family & themselves among the study participants using Kruskal Wallis Test											
Variable	Time Spent	PHQ-9		PSS		MBI-EE		MBI-D		MBI-PA	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Family	< 1 hr.	14.20	6.93	23.72	8.29	26.52	14.14	10.20	7.00	27.80	8.28
	1-3 hrs.	9.31	5.74	19.08	6.46	21.57	13.17	8.57	6.50	29.39	10.89
	> 3 hrs.	5.88	5.14	13.66	7.67	11.81	11.80	4.97	6.67	37.16	9.15
	P-Value	<0.001*		<0.001*		<0.001*		0.001*		<0.001*	
Yourself	< 1 hr.	10.72	6.26	20.53	7.19	22.89	14.76	8.83	7.09	29.04	10.84
	1-3 hrs.	8.58	6.99	17.38	8.51	17.50	12.88	7.55	6.94	33.10	10.29
	> 3 hrs.	6.77	5.62	14.00	8.56	14.23	12.41	4.92	5.47	35.46	7.31
	P-Value	0.04*		0.04*		0.08		0.13		0.04*	

* - Statistically Significant

Mann-Whitney test reported statistically significant difference ($p=0.04^*$) between the mean scores of MBI-D and MBI-PA based on working hours and statistically significant difference ($p=0.01^*$ for PHQ-9, $p=0.04^*$ for PSS, MBI-EE) between the mean scores of PHQ-9, PSS and MBI-EE based on history of psychiatric illness.

Kruskal -Wallis test reported statistically significant difference ($p=0.01^*$) between the mean scores of MBI-PA based on income levels, statistically significant difference ($p<0.001^*$ for all the scales) between the mean scores of PHQ-9, PSS, MBI-EE, MBI-D and MBI-PA based on time dedicated to family and statistically significant difference ($p=0.04^*$ for all the scales) between the mean scores of PHQ-9, PSS and MBI-PA based on time spent on themselves.

Exploration of association:

Spearman's correlation analysis revealed statistically significant ($p<0.001^*$) relationship between PHQ-9, PSS, MBI-EE, MBI-D and MBI-PA mean scores. The effective size of the relationship was moderate-large.

Analysis found a very strongly positive correlation of PHQ-9 scores with PSS scores, a strongly positive correlation with MBI-EE scores and MBI-D scores and a strongly negative correlation with MBI-PA scores.

A strongly positive correlation of PSS scores with MBI-EE scores, a moderately positive correlation with MBI-D scores and a moderately negative correlation with MBI-PA scores was identified.

Also a strongly positive correlation of MBI-EE scores with MBI-D scores and moderately negative correlation of MBI-EE scores with MBI-PA scores and a moderately negative correlation of MBI-D scores with MBI-PA scores were also revealed.

Scales	Values	PHQ-9	PSS	MBI-EE	MBI-D	MBI-PA
PHQ-9	rho	1	0.73	0.67	0.62	-0.42
	P-Value	.	<0.001*	<0.001*	<0.001*	<0.001*
PSS	rho	0.73	1	0.63	0.54	-0.50
	P-Value	<0.001*	.	<0.001*	<0.001*	<0.001*
MBI-EE	rho	0.67	0.63	1	0.79	-0.42
	P-Value	<0.001*	<0.001*	.	<0.001*	<0.001*
MBI-D	rho	0.62	0.54	0.79	1	-0.44
	P-Value	<0.001*	<0.001*	<0.001*	.	<0.001*
MBI-PA	rho	-0.42	-0.5	-0.42	-0.44	1
	P-Value	<0.001*	<0.001*	<0.001*	<0.001*	.

* - Statistically Significant

The correlation coefficients are denoted by 'rho' Minus sign denoted negative correlation

Correlation coefficient range

0.0- No Correlation

0.01-0.20- Very Weak Correlation

0.21-0.40- Weak Correlation

0.41-0.60- Moderate Correlation

0.61-0.80- Strong Correlation

0.81-1.00- Very Strong Correlation

DISCUSSION:

There are very few studies that evaluate the mental health of WFH participants after the pandemic. The fear of getting the virus was made worse by new realities brought on by the pandemic, such as working from home, homeschooling kids, and avoiding physical contact with coworkers, acquaintances, and other family members. In an effort to

stop a global mental health pandemic that could result from this viral pandemic, reports of mental health issues have increased recently, and information on coping mechanisms is being disseminated. The current study looked at the health of the workers who moved to WFH once COVID-19 regulations were put in place nationwide. We looked into any potential risk factors for depression, stress, and burnout.

In the present study, 77.5% of the participants scored ≥ 10 on PHQ-9, which is suggestive of major depressive disorder, with 45.1 percent of respondents reporting moderate-to-severe depression.

On comparing the findings of the present study with the recent mental health survey, which evaluated psychiatric morbidity among people from the community, results deviated with depression being identified only in 17.9 % of the respondents. The variation may be due to application of a different scale in the study and variation in sample size.(24)

In the present study, perceived stress was evaluated using PSS, and 75.5% of the participants reported moderate-to-high stress. Findings of the present study lend support to the existing literature, which have also reported higher rates of stress since the COVID-19 restrictions were put in place.(25) Blurred boundaries between work and home, spillover from either domain or role overload may have contributed to increased stress scores.

In the present study, negative psychological outcomes like depression were influenced by time spent with family and on themselves after work and burnout was influenced by working hours, income and time spent with family and on themselves as revealed by statistically significant differences in mean scores amongst the groups.

The results are aligned with studies done on people employed in other occupations like medical professionals that revealed longer working hours, less time for pursuing out of work interests contributed to increased incidence of psychological problems in these professionals. (26)

The present study implied increased severity of depression was associated with more stress, emotional exhaustion and depersonalisation and a decreased sense of personal accomplishment. The findings were in line with recent research on technology-facilitated and "ghost work" (27), which suggests that distant work has a distinct set of stress and burnout-related characteristics, such as longer working hours, low pay, negative interpersonal interactions, etc.

Increased screen time and decreased physical activity can result from WFH and persistent movement constraints. Although the study did not specifically explore the effect of physical activity on psychological well-being, it did find that 51% of respondents did not engage in any sort of physical activity, which may be a contributing factor to poor mental health well-being.

Findings of this study must be deciphered in the light of its limitations. First of all, the sample size is smaller than in other research of a similar nature that used a bigger sample size. On the basis of different factors, including working hours, income, time spent with family, and time spent on themselves, the study did uncover substantial differences among the scales used to detect depression, stress, and burnout, but it did not examine the nature of their link.

It is significant to emphasise that PHQ-9, rather than the full psychiatric evaluation, was used to calculate the rates of depression reported in the current study. The current study did not investigate the particular factors connected to stress at work. Further, it is likely that some of the people may experience stress and despair as they might be transitioning from different psychological elements that were not assessed as part of this study. The current survey evaluated the issue from a cross-sectional perspective rather than from a longitudinal one. To get over this study's shortcomings, longitudinal study designs must be used in future research.

CONCLUSION:

Despite several limitations, the study's findings contribute to our understanding of professionals' work-related burnout, work-life balance, and working from home. The results support and strengthen existing ideas that "spillover" and "role overload," which in this case occur in the same setting, are the most likely causes of stress. (28,29).

These findings suggest that measures for evaluating workplace stress, burnout, and depression must be developed right away. Additionally, there is a need to lessen the stigma associated with mental illnesses and teach professionals stress management techniques so that they can get assistance when required. Focus should be placed on a variety of behavioural and cognitive strategies for managing stress. Furthermore, organisations need to regularly conduct professional mental health screenings and provide stress management classes on a regular basis.

Conflict Of Interest:

The author and co-author have no conflicts of interest to declare and there is no financial interest to report.

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