

Prevalence of burnout syndrome among Work-From-Home IT professionals during the COVID-19 pandemic

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Abstract.

BACKGROUND: Many countries adopted a complete or partial lockdown to prevent the spread of COVID-19, and various professions started to work-from-home. People who work-from-home experience constant stress which leads to burnout syndrome. Burnout can be defined as a chronic stress-induced occupational syndrome resulting in fatigue, decreased job productivity, and poor motivation towards the job.

OBJECTIVE: This research work primarily focuses on exploring the prevalence of burnout syndrome among IT professionals who work-from-home and to determine the impact of burnout in different gender and age-groups during the COVID-19 pandemic.

METHODS: Using snowball sampling method 934 IT professionals were selected based on selection criteria, explained about the study processes, and instructed to submit an online survey consist of Maslach Burnout Inventory scale (MBI) through mail, social media, or through a researcher by direct interview.

RESULTS: Descriptive statistics were used to interpret the data. In 25–30 years age-group, men were affected (93%) less than women (94%) and also in 31–35 years age-group, men were affected (96%) less than women (98%). Overall burnout scores of men were 94% and women were 96%. Results indicate female IT professionals were more prone experience burnout syndrome than Male population.

CONCLUSIONS: From the results, it is concluded that 95% of the IT professionals are suffering from burnout, where women are more prevalent to burnout when compared to male. It is also suggested that an early, routine and frequent assessment of physical status, mental status and burnout syndrome is essential to maintain mental health.

1. Introduction

The novel coronavirus emerged initially in December 2019 and became a global pandemic disease on April 4th, 2020 affecting many countries. Globally, more than 1 million patients were infected [1], numerous cases faced severe illness and a mortality rate of

2.3% were reported [2]. The COVID-19 pandemic has a considerable strain over the economic, social, physical, and mental well-being of the entire population [3].

Considering the mode of disease spread, the World Health Organization recommended a global strategy to control the pandemic through social distancing, sanitizing hands frequently, using face-masks, and isolating the infected person to prevent transmission. Many countries adopted a complete or partial lock-

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down to prevent the spread of disease which resulted in numerous people losing their working environment and supposed to start work-from-home. One of the major professionals who had easy access to work-from-home were Information Technology professionals [4–7].

Though work-from-home was considered to be a better option, significant demerits were hidden and unnoticed. People who work-from-home were in the situation to handle both the job and home responsibilities together, resulting in constant stress leading to work-related burnout syndrome [8]. Burnout can be defined as a chronic stress-induced occupational syndrome that leads to fatigue, decreased job productivity, loss of interest, and poor motivation towards the job. As a consequence, the employee's absenteeism, reduced productivity, and emotional exhaustion might be emerged [9, 10].

The professionals who were more prone to burnout were the Information Technology (IT) professionals as they work with increased workload than the normal pattern of working [11, 12]. Information Technology (IT) is one of the most important sectors of global economy with 10.4 million people worldwide. With the increasing market pressures, long and indeterminate hours of work, lack of time between work and personal life, tight deadlines, and various budgetary constraints leads them to work over-time, and induce chronic stress [13].

Burnout appears abruptly or slowly, with a strong impact on colleagues, friends and even on family. During initial stages of work-from-home, it may be relaxing and stress-free; but this new trend loses fun as the time passes. It might be very difficult to manage the household work and the official work together. Depression, exhaustion, fatigue, anger, and anxiety may begin to appear over this hard work-life as a routine [14–16].

More than half of the working population who work-from-home had reported negative impact on health, with no discrimination of gender and age group [17, 18], but the causal pathways of health issues were not the same. The conservation of resources theory framework states that the salient gender roles or social identities may be threatened in different ways among men and women during their juggling of work and home lives [19].

Burnout and professional fulfillment can be assessed using a questionnaire survey which is specially designed to examine the level of burnout called Maslach Burnout Inventory. Over 90% of journal articles and literatures used MBI to examine

burnout and suggested it as a reliable and valid tool [20, 21].

Though most of the previous studies examined the burnout syndrome among IT professionals, burnout due to the emergence of work-from-home during this pandemic situation was not studied yet. Thus, this research work primarily focuses on exploring the prevalence of burnout syndrome among IT professionals who work-from-home and to determine the impact of burnout in different gender and age-groups during the COVID-19 pandemic.

2. Methods

2.1. Participants and procedure

The snowball sampling method was used to collect the IT professionals who work-from-home and willing to take part in the study from Chennai, India. The study was approved by the Institutional Review Board (05/04/2021/ISRB/FR/SCPT) and Ethical Committee. A total of 1107 participants were invited to participate in this study through E-mails, phone calls, and social media. 934 participants between the age group of 25–35 years were selected based on the selection criteria. The researchers explained the study process in phone calls and instructed to submit an online survey consisting of the Maslach Burnout Inventory scale (MBI) and personal information through mail, social media, or through a researcher by direct interview.

2.2. Selection criteria

The IT professionals of both genders between the age group of 25–35 years with normal physical and mental health status were included for the study. Participants with previous mental, physical, or psychological illness; participants under medications or treatment for any chronic illness; participants with chronic medical conditions involving cardiac, pulmonary, orthopedic, neurological, or psychosomatic systems were excluded from the study.

2.3. Outcome measures

2.3.1. Maslach Burnout Inventory scale (MBI)

The MBI has three sections, namely emotional exhaustion, personal accomplishment, and depersonalization. A participant with a high score in the 1st and 3rd sections with a low score in the 2nd section

Table 1
Percentages and number of participants in each group

	Age group		Gender	
	25–30	31–35	M	F
No. of	549	386	373	561
Percentage	58.7%	41.3%	40%	60%

was considered as a person with burnout syndrome [22].

2.3.2. Personal information

Age, gender, basic profile, medical history, and personal history including smoking, alcohol, and drugs intake were collected. The participants were grouped based on their gender (male, female) and age groups [25–35].

3. Data analysis

Descriptive statistics were used to analyze the burnout syndrome from the selected participants. The mean values and percentages of each gender is calculated based on number of participants in each group. Table 1 represents the percentage calculation and number of participants in each group.

A total score per participant from the three components of MBI was calculated and the burnout was determined based on the total scores. The mean of all scores were also calculated and compared with male and female subject scores.

4. Results

4.1. Sample characteristics

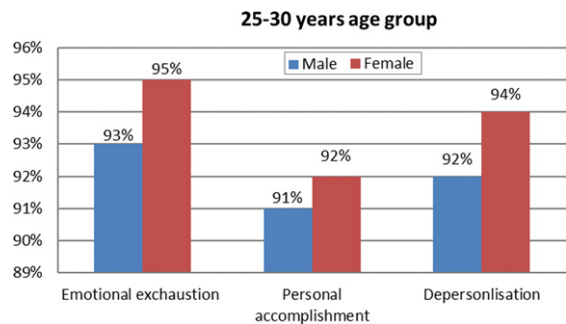
Among the 1107 IT professionals invited, 934 participants were selected based on the selection criteria and took part in the study. The data collected were used for the descriptive analysis, which revealed that the average age of the sample population was 29.26 years, with more female participants (561, 60%) compared to male participants (373, 40%). Around 58.7% of the participants were aged between 25 to 30 years and 41.3% were aged between 31 to 35 years. The mean score for all 934 indicates almost 95% of the IT professionals were affected by burnout syndrome. However, the mean values of each group were studied separately to understand the differences between age-groups and gender (Table 2).

Table 2
Burnout percentage of each group

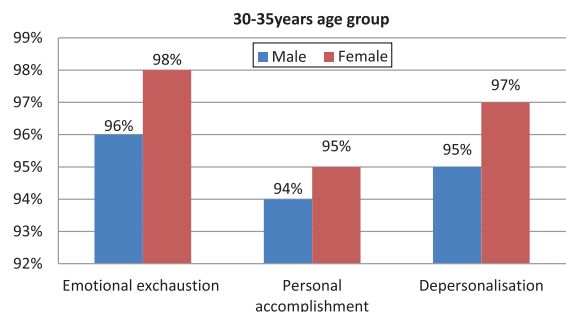
	Male		Female	
	25–30	31–35	25–30	31–35
Emotional exhaustion	93%	96%	95%	98%
Personal accomplishment	91%	94%	92%	95%
Depersonalization	92%	95%	94%	97%
Burnout syndrome	93%	96%	94%	96%

4.2. Burnout syndrome with age groups and gender

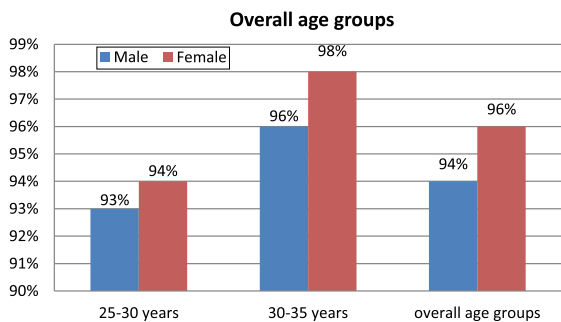
- i. The data analysis of 25–30 years age-group showed that the male participants have emotional exhaustion of 93%, personal accomplishment of 91%, and depersonalization of 92%; whereas the female participants have emotional exhaustion of 95%, personal accomplishment of 92%, and depersonalization of 94% (Graph 1).
- ii. The data analysis of 31–35 years age-group showed that the male participants have emotional exhaustion of 96%, personal accomplishment of 94%, and depersonalization of 95%; whereas the female participants have emotional exhaustion of 98%, personal accomplishment of 95%, and depersonalization of 97% (Graph 2).



GRAPH- 1. Burnout percentage of male and female participants in the 25–30 years of age category.



GRAPH- 2. Burnout percentage of male and female participants in the 30–35 years of age category.



GRAPH- 3. Burnout percentage of male and female participants in the overall age category.

- iii. In 25–30 years age-group, males were affected (93%) less than females (94%) and also in 31–35 years age-group, males were affected (96%) less than females (98%) (Graph 3). Total participants in general, males were affected by 94% and female by 96% measured using MBI scale.

From the above data interpretation, it is understood that the female IT professionals were more prone to have high burnout syndrome than the male population. It is also noted that 95% of the selected participants (888) were having burnout syndrome with the eldest female group (30–35 years) having more risk to experience burnout syndrome than the other groups.

5. Discussion

The current study aimed to explore the prevalence of burnout syndrome in IT professionals who work-from-home during the COVID-19 pandemic. Reviewing the literature suggests that burnout has been documented in various fields and most commonly associated with increased demand to the work [23]. Few studies also supports that IT professionals were vulnerable to work exhaustion [24, 25]. Further, the authors also add that the stressors which excite anger in the working environment could cause burnout syndrome for IT professionals easily.

Sonnentag et al. state that role conflict, job tasks, role ambiguity, and stress have a positive association with burnout [24]. Furthermore, work stressors in the software development profession could be because of the job environment which leads to burnout syndrome. Maudgalya et al. suggest that burnout is not only associated with stress but is also associated with the absence of positive features in the work situation such as complexity of work, high cognitive learn-

ing, lack of control, and communication requirements [13]. Huarng et al. concluded that IT professionals have increased levels of burnout, specifically in persons with reduced personal accomplishment, during the systems analysis and maintenance phases [25].

It is evident that IT Professionals experience high stress when compared to other professionals. Though burnout syndrome was prevalent in many other professions it is very much evident in people working in IT [13, 26].

Comparing men and women, women were more prevalent to burnout syndrome because the female population has to take care of their household work and to look-after children, especially mothers of children below 5 years were more prone to burnout as they face excessive burden in Indian population. Thus, women spend more time with their children as they graft family work rather than chores [26, 27].

Our findings show that 95% of the IT professionals who work from home experience high levels of personal and work-related burnout, while most had low rates of client-related burnout and the results of psychological variables showed severe sample levels of anxiety (86.9%), depression (88.6%), and stress (94.4%). However, 5% of the experienced professionals with more than 6 years of experience did not seem to have burnout syndrome, and handled their stress level and anxiety with more ease.

The current study enlightens that the burnout syndrome is more prevalent among IT professionals who work from home during the COVID-19 lockdown period whereas women shown to experience higher rates of burnout than men. Considering the prevalence of burnout syndrome in Indian IT professionals, a proper prevention and stress relaxing programs should be framed in order to avoid associated symptoms of the burnout syndrome. Also, this study suggests that an early diagnosis of burnout syndrome among all professions who tend to have more psychological stress in their work environment or workplace than physical stress. Employers and managers should take necessary steps to ensure prevention of burnout among their employees, since this global pandemic has turned many lives uncertain. Employee friendly protocol and time management should be considered and the assigned work must be goal-centric and not time-centric. Goal-centric work schedule can ease up their work load, promotes job satisfaction and reduce overtime work. Further this study is limited to various factors like single urban area, subjective evaluation, and participants age lesser than 35. Hence, we suggest future trails focusing on

multicenter studies with large sample size and experimenting treatment protocols will be beneficial.

6. Conclusion

From the results, it is concluded that 95% of the IT professionals suffer from burnout, of which the females are more prevalent compared to males. It is also suggested that an early assessment of burnout syndrome is essential for all professionals to maintain their good physical as well as mental health. Keeping the work environment positive and work-friendly for both genders will provide more ambience, comfort, and a stress-free work zone for the female professionals thereby improving the productivity of their work.

Conflict of interest

None to report.

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