ORIGINAL ARTICLE

Mental Health At The Workplace: An Online Exploratory Study On Perceived Stress, Common Mental Disorder, And Sleep During COVID-19 Pandemic

Sharma P[1], Pokharel M[2], Sharma P[3], Sharma S[4], Acharya S[5]

1. Assistant Professor, PAHS, School Of Medicine, Lalitpur, Nepal 2. Lecturer, Xavier International College, Kathmandu, Nepal 3. Consultant Epidemiologist, Health Directorate, Province 5, Nepal 4. MN Student, Patan Academy of Health Sciences, School of Nursing and Midwifery, Lalitpur Nepal 5. Resident, Department of Internal Medicine, New York Medical College/Metropolitan Hospital Center, New York, USA

*E-mail *Corresponding author :* pawan60@gmail.com

Abstract

Introduction: *Stress in the workplace is a well-known phenomenon. With the current COVID-19 pandemic and the measures to counteract it has led to a psychological toll on employees of almost all sectors. We aim at exploring the self-perceived stress, screen for anxiety, and depression, and sleep problems among the employees of a corporate business house.*

Material And Method: *An online survey using a cross-sectional design and purposive sampling was conducted during the lock-down due to the COVID-19 pandemic in Nepal among the employees of a corporate house before conducting a stress management session. The tools used were semi-structured proforma and the Perceived Stress Scale (PSS), Patient Health Questionnaire-4 (PHQ4), and Single-item sleep quality scale (SQS). A descriptive statistical analysis was performed.*

Results: *The majority of the respondents were male (64.9%), unmarried (78.9%), and lived with their family (92.8%). A moderate level of stress was present among 86.0% and a high level of stress among 5.2% of respondents. 24.6% and 33.3% of individuals were screened positive for anxiety and depression respectively. 17.5% of the individuals had poor sleep and 15.8% perceived their work efficiency was decreased.*

Conclusion*: The stress and psychological problems reported by the respondents strongly suggest a need for regular stress management programs. Further studies are warranted with a larger sample size and from different sectors to look at the real impact of COVID-19 on the employees.*

Keywords: COVID-19, Corporate employees, Stress Management, Psychological Impact

INTRODUCTION

Most of the world's population spend one-third of their adult lives at work. Stress in the workplace is common and can keep one from feeling and performing at his/her best — mentally, physically, and emotionally. Job stress or stress at the workplace is defined by Beehr& Newman (1978) as a condition arising from the interaction of people and their jobs and characterized by changes within people that force them to deviate from their normal functioning.[1] Stress accounts for more than a third of all cases of work-related ill health and almost half of all working days lost due to illness.[2] The evidence throughout the world suggest stress at the job and poorly functioning work environments are associated with the development of mental health problems.[3] Stress-related illnesses directly impact employers through absenteeism, employee productivity, and morale. Studies have also shown being unhappy with or unfulfilled by work can take a toll on our health, relationships, and even lifespan.[4] Work-related stress could also

manifest as heart disease, back pain, headaches, gastrointestinal disturbances, or various minor illnesses; as well as psychological effects such as anxiety and depression manifested as loss of concentration and poor decision making.[5] Ignoring mental health and stresses in the workplace cause massive losses in a business' bottom line and creates a hardship for employees.

The workplace is an appropriate environment to educate individuals and raise their awareness about stress-related problems and prevent them from developing. Promotion of good mental health practices can be part of human resource management policy, and occupational health care services can play an important role in early recognition and identification of stress-related difficulties.[6] Stress management might also help in preventing and promoting mental well-being. Early intervention and prevention programs can be integral in managing symptoms of stresses, mental illness, and improving treatment outcomes.[7]

The coronavirus disease 2019 (COVID-19) pandemic is having a profound effect on all aspects of society, including mental health and physical health and the business and corporate world cannot be untouched by it.[8,9] A recent study in China among 1323 members of the workforce using the online platform showed that 10.8% of respondents suffered from post-traumatic stress disorder, anxiety (3.8%), depression (3.7%), stress (1.5%), and insomnia (2.3%). [10] Both the pandemic and the methods used to counteract it like isolation, quarantine, and lockdown can have mental health consequences.[11] Also with the down-going economy the employees of the corporate world face other challenges like salary deduction, job insecurity, working from home not being as efficient as work at the office which can create a toll on mental wellbeing. The employees have to face a lot of challenges and apprehension at this hard time all around the world considering the economy, major change in work modality. In the context of Nepal, there are very limited studies in occupational health and the pandemic has presented a unique opportunity to study the impact of changing work modality and economy in the mental health of employees of the corporate sector. This study aims at exploring the self-perceived stress, screen for anxiety, and depression, and sleep problems among the employees of a corporate house.

MATERIAL AND METHOD

We had run a program titled "Stress Management and Self-care during the ongoing COVID-19 pandemic" for all the employees of a corporate business house using the online platform. The overall goal of the program was to promote positive mental health at the workplace, stress management, early identification and intervention of mental health problems, and respond to employees who need support. Before the stress management session of 1.5 hours, we also performed an online structured assessment. A google form was made and the link of the survey was sent to employees using online platforms. Respondents were made aware of the initials and credentials of the investigators, length of the study, storage of data, and password-protected google drive with investigator limited access, the purpose of the information collection, and the expected outcome of the study. No identifiable or contact information was obtained from the respondents. This study is a part of another larger project titled "Mental Well-being during the COVID 19 pandemic lock-down". Ethical approval has been taken from the Nepal Health Research Council (Ref. no: 2467).

The following tools were used for assessment:

i. ***Semi-structured proforma:*** This consisted of age, gender, marital status, education, current living arrangement, etc. We also asked about the increase/decrease of smoking habit using unstructured questions. Also, one question on efficiency at work was asked.

ii. ***Perceived Stress Scale(PSS):*** It is the most widely used psychological instrument for measuring the perception of stress.[12] It is a measure of the degree to which situations in one's life are appraised as stressful. The questions in the PSS ask about feelings and thoughts during the last month. It has good psychometric properties when used in the general population.[13]

iii. ***Patient Health Questionnaire-4 (PHQ-4)*:** This four-item scale consists of two core criteria each for depressive disorder and generalized anxiety disorder and is regarded as an ultra-brief tool for the

detection of depression and anxiety.[14] Study from the general population supports the reliability and validity of this scale. [15] It has the potential to be used as a mass screener for depression and anxiety. [16]

iv. ***Single-item sleep quality scale (SQS):*** This is a self-administered questionnaire that incorporates a discretizing visual analog scale (VAS). The questionnaire instructions direct the respondent to rate the overall quality of sleep over a 7-day recall period on a discretizing VAS, whereby the respondent marks an integer score from 0 to 10, accordingly categories are made. It possesses a favorable measurement characteristic relative to lengthier or more frequently administered sleep questionnaires for insomnia.[17]

RESULT

Table 1: Socio-demographic profile and substance use among respondents

Variables	Number	Percentage (%)
Gender		
Male	37	64.9
Female	20	35.1
Age: Mean (SD)	26.81 (SD= 4.9 years)	NA
Marital Status		
Married	12	21.1
Unmarried	45	78.9
Education		
Masters	40	70.2
Bachelors	16	28.1
10+2	1	1.8
Current living arrangement		
With family	53	92.8
Alone	4	7.2
History of psychiatric illness		
Yes	7	12.3
No	50	87.7
Change in smoking habit		
Doesn't apply	40	70.2
No change	5	8.7
Increased	1	1.8
Decreased	11	19.3
Change in drinking habit		
Doesn't apply	36	63.2
No change	11	19.3
Increased	2	3.5
Decreased	8	14.0

As seen in table 1 majority of the respondents were male and the mean age was 26.81 years. The majority were unmarried (78.9%) and had an education of bachelors or above. Most respondents lived with their families (92.8%). In the case of the smoking habit, only one respondent reported having increased, and for drinking two respondents reported having increased.

Table 2: Perceived stress, mental health screening and sleep among respondents

Screened Disorder	Number	Percentage (%)
Perceived stress Score		
Low stress	5	8.8
Moderate stress	49	86.0
High stress	3	5.2
Anxiety Disorder		
Screen Positive	14	24.6
Screen Negative	43	75.4
Depression		
Screen Positive	19	33.3
Screen Negative	38	67.7
Sleep problem rating		
0 = terrible	0	0
1–3 = poor	10	17.5
4–6 = fair	23	40.4
7–9 = good	22	38.6
10 = excellent	2	3.5
Efficiency in work (self-perceived)		

Decreased	9	15.8
Not sure	21	36.8
Same	27	47.4
Total	157	100

As in table 2, the majority of the participants had a moderate level of stress (i.e. 86.0%). However, 5.2 % of the participants had a high level of stress which is indicative of the need for some intervention at a personal level. This table shows only the stress level, it doesn't mean the individuals have mental disorders. Also, 24.6% of individuals were screened positive for anxiety and 33.3% of individuals were screened positive for depression. Regarding sleep, 17.5% of the respondents had poor sleep. Also, we looked at the efficiency at work during this lock-down period and found 15.8% of the employees perceived their efficiency was decreased.

DISCUSSION:

The study aimed at exploring the perceived stress score, screening for anxiety, depression, and sleep pattern among the employees of a corporate business house in Nepal during the lockdown period of the COVID-19 pandemic. Male respondents were more than female and the mean age was 26.81 (SD= 4.9 years) and the majority were unmarried indicating that most of the employees were young and in their early stage of career. There was an overall decrease in the pattern of smoking and alcohol use. This is in line with a study done in Kerala among 263 respondents where there was a decrease in alcohol use and smoking by 83.3% and 58.8% respectively.[18] Also, it has been suggested lockdown represents a risk factor for increased alcohol consumption in people with alcohol use disorders and relapse for those who were previously abstinent.[19] Lockdown might cause different behavioral changes in smoking and alcohol intake. Generally, substance use has been well recognized as a risk of relapse and increased use, the reduction might be associated with decreased financial ability, restricted mobility, no group activity, being at home with family, decreased availability, etc. Also, fear about the decrease in immunity leading to the chance of complication if infected by COVID-19 could be another reason for decreased use. However, it is imperative to be aware that there might be chances of withdrawal with a decrease in alcohol.[20] Also, some cases reported increase use which may show a maladaptive coping and risk for future addiction.

The majority (86%) of the respondents had a moderate level of perceived stress and 5.2% had a severe level of perceived stress. This is higher than seen in other studies done in Nepalese during this pandemic. A study by Gupta et al. among 142 respondents, 77.4 % and 1.6 % had a moderate and severe level of perceived stress.[21] Another online study in the Nepalese setting showed 76.7% of respondents have moderate self-perception of stress, 5.3% high stress; and 17.9% low stress.[22] The higher percentage of perceived stress in our sample suggests that the young employees working in the corporate sector have a higher level of stress compared to the general population and hence highlight the importance of stress management programs like we conducted in our sample.

The screening showed 24.6% and 33.3% of respondents were positive for anxiety and depression respectively. The prevalence of anxiety is in line with the study done by Gupta et al which showed 25.4% but the prevalence is higher in our sample as compared to 7% [21] but comparable to another study by the same author.[23] Also, our data is well within the range suggested by a recent meta-analysis among the general population during the COVID-19 pandemic in China, Spain, Italy, Iran, the US, Turkey, Nepal, and Denmark i.e. the rates of symptoms of anxiety 6.33% to 50.9%, depression:14.6% to 48.3%, and stress: 8.1% to 81.9%. [24] 17.5% of respondents reported having poor sleep which is less than that reported in 1242 residents of China that showed 30% had sleep problems.[25]The interesting point to note here is 15.8% of respondents only reported a self-perceived decrease in efficiency during the lockdown. This might be due to a change in modality of work or as a psychological impact of the COVID 19 pandemic. This is another area that needs further research.

The strength of the study is that this survey was followed by a stress management program for the respondents. This is among a very few studies in Nepal that have looked into the psychological factors among the employees of the corporate sector. The homogenous nature of the sample highlighting the stress management

program is another strength. However, there are limitations to this study. The relatively small sample size recruited using a non-randomized sampling procedure, limits the generalizability of present study findings. Also, we conducted the study at the time of the COVID-19 pandemic, and since as we lack the baseline data among corporate employees of Nepal we are not able to comment on whether the pandemic has led to an increase in perceived stress and psychological problems.

CONCLUSION:

The stress and psychological problems reported by the employees of the corporate sector strongly suggest a need for regular stress management programs. Also, there is no denying the fact that the COVID-19 pandemic has impacted the psychological wellbeing in this group. Further studies are warranted with a larger sample size and from different sectors to look at the real impact of COVID-19. We believe this study could act as a baseline for other larger studies and help in formulating a contextualized stress management package for the corporate sector.

ACKNOWLEDGEMENT: None

FUNDING: None

CONFLICT OF INTEREST: None

REFERENCES:

1. *Beehr TA, Newman JE. Job stress, employee health, and organizational effectiveness: A facet analysis, model, and literature review. Pers Psychol. 1978;31(4):665–99.*
2. *Despréaux T, Saint-Lary O, Danzin F, Descatha A. Stress at work. BMJ [Internet]. 2017 Jun 15 [cited 2020 Sep 29];357. Available from: https://www.bmj.com/content/357/bmj.j2489*
3. *Rugulies R, Aust B, Madsen IE. Effort–reward imbalance at work and risk of depressive disorders. A systematic review and meta-analysis of prospective cohort studies. Scand J Work Environ Health. 2017;43(4):294–306.*
4. *Rajgopal T. Mental well-being at the workplace. Indian J Occup Environ Med. 2010;14(3):63–5.*
5. *Executive (HSE) H and S. Managing the Causes of Work-Related Stress: A Step-by-Step Approach Using the Management Standards. HSE Books Norwich, UK; 2007.*
6. *Elkin AJ, RoschPJ. Promoting mental health at the workplace: the prevention side of stress management. Occup Med Phila Pa. 1990 Dec;5(4):739–54.*
7. *Limm H, Gündel H, Heinmüller M, Marten-Mittag B, Nater UM, Siegrist J, et al. Stress management interventions in the workplace improve stress reactivity: a randomised controlled trial. Occup Environ Med. 2011 Feb 1;68(2):126–33.*
8. *Holmes EA, O'Connor RC, Perry VH, Tracey I, Wessely S, Arseneault L, et al. Multidisciplinary research priorities for the COVID-19 pandemic: a call for action for mental health science. Lancet Psychiatry. 2020 Jun 1;7(6):547–60.*
9. *Caligiuri P, De Cieri H, Minbaeva D, Verbeke A, Zimmermann A. International HRM insights for navigating the COVID-19 pandemic: Implications for future research and practice. J Int Bus Stud. 2020 Jun 2;1–17.*
10. *Tan W, Hao F, McIntyre RS, Jiang L, Jiang X, Zhang L, et al. Is returning to work during the COVID-19 pandemic stressful? A study on immediate mental health status and psychoneuroimmunity prevention measures of Chinese workforce. Brain Behav Immun. 2020 Jul 1;87:84–92.*
11. *Kar SK, Yasir Arafat SM, Kabir R, Sharma P, Saxena SK. Coping with Mental Health Challenges During COVID-19. In: Saxena SK, editor. Coronavirus Disease 2019 (COVID-19): Epidemiology, Pathogenesis, Diagnosis, and Therapeutics [Internet]. Singapore: Springer; 2020 [cited 2020 Sep 29]. p. 199–213. (Medical Virology: From Pathogenesis to Disease Control). Available from: https://doi.org/10.1007/978-981-15-4814-7_16*
12. *Cohen S, Kamarck T, Mermelstein R. A Global Measure of Perceived Stress. J Health SocBehav. 1983;24(4):385–96.*
13. *Lee E-H. Review of the Psychometric Evidence of the Perceived Stress Scale. Asian Nurs Res. 2012 Dec 1;6(4):121–7.*
14. *Kroenke K, Spitzer RL, Williams JBW, Löwe B. An ultra-brief screening scale for anxiety and depression: the PHQ-4. Psychosomatics. 2009 Dec;50(6):613–21.*
15. *Löwe B, Wahl I, Rose M, Spitzer C, Glaesmer H, Wingenfeld K, et al. A 4-item measure of depression and anxiety: validation and standardization of the Patient Health Questionnaire-4 (PHQ-4) in the general population. J Affect Disord. 2010 Apr;122(1–2):86–95.*
16. *Khubchandani J, Brey R, Kotecki J, Kleinfelder J, Anderson J. The Psychometric Properties of PHQ-4 Depression and Anxiety Screening Scale Among College Students. Arch PsychiatrNurs. 2016 Aug 1;30(4):457–62.*
17. *Snyder E, Cai B, DeMuro C, Morrison MF, Ball W. A New Single-Item Sleep Quality Scale: Results of*

Psychometric Evaluation in Patients With Chronic Primary Insomnia and Depression. J Clin Sleep Med JCSM Off Publ Am Acad Sleep Med. 2018 Nov 15;14(11):1849–57.

18. *Nair DR, Rajmohan V, Tm R. Impact of COVID-19 Lockdown on Lifestyle and Psychosocial Stress - An Online Survey. Kerala J Psychiatry. 2020 Jun 21;33(1):5–15.*
19. *Kim JU, Majid A, Judge R, Crook P, Nathwani R, Selvapatt N, et al. Effect of COVID-19 lockdown on alcohol consumption in patients with pre-existing alcohol use disorder. Lancet GastroenterolHepatol. 2020 Oct 1;5(10):886–7.*
20. *BalharaYPS, Singh S, Narang P. The effect of lockdown following COVID-19 pandemic on alcohol use and help seeking behaviour: Observations and insights from a sample of alcohol use disorder patients under treatment from a tertiary care centre. Psychiatry ClinNeurosci [Internet]. [cited 2020 Sep 29]; Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7283852/*
21. *Gupta AK, Sahoo S, Mehra A, Grover S. Psychological impact of 'Lockdown' due to COVID-19 pandemic in Nepal: An online survey. Asian J Psychiatry. 2020 Dec;54:102243.*
22. *SamadarshiSCA, Sharma S, Bhatta J. An online survey of factors associated with self-perceived stress during the initial stage of the COVID-19 outbreak in Nepal. Ethiop J Health DevEJHD [Internet]. 2020 Apr 17 [cited 2020 Sep 30];34(2). Available from: https://www.ejhd.org/indessx.php/ejhd/article/view/2968*
23. *Gupta AK, Mehra A, Sahoo S, Pokhrel P, Grover S. Psycho-behavioural impact of 'Lockdown' due to COVID-19 pandemic in Nepal: An Online Survey. J PsychiatrAssoc Nepal. 2020 Sep 18;9(1):10–5.*
24. *Xiong J, Lipsitz O, Nasri F, LuiLMW, Gill H, Phan L, et al. Impact of COVID-19 pandemic on mental health in the general population: A systematic review. J Affect Disord. 2020 Dec 1;277:55–64.*
25. *Fu W, Wang C, Zou L, Guo Y, Lu Z, Yan S, et al. Psychological health, sleep quality, and coping styles to stress facing the COVID-19 in Wuhan, China. Transl Psychiatry. 2020 Jul 9;10(1):1–9.*