International Journal of Indian Culture and Business Management

ISSN online: 1753-0814 - ISSN print: 1753-0806
https://www.inderscience.com/ijicbm

Employees' psychological well-being in a pandemic: a case study during the peak of the COVID-19 wave in India

Rohit Chauhan, Himanshu Jishtu, Alka Shaktan, Arun Kumar

DOI: 10.1504/IJICBM.2022.10049925

Article History:
Received: 04 March 2022
Accepted: 07 July 2022
Published online: 08 February 2024

Employees' psychological well-being in a pandemic: a case study during the peak of the COVID-19 wave in India

Rohit Chauhan*

School of Hotel Management and Tourism,
Lovely Professional University,
Punjab, 144411, India
Email: rohitfromhimalaya@outlook.com
*Corresponding author

Himanshu Jishtu

School of Hospitality and Tourism,
Bahra University,
Waknaghat, Himachal Pradesh, 173234, India
Email: himanshu@bahrauniversity.edu.in

Alka Shaktan

Post Graduate Institute of Behavioral and Medical Sciences,
Raipur, Chhattisgarh, 492001, India
Email: alkshaktanzoostter@gmail.com

Arun Kumar

Government Degree College,
Bilaspur, Himachal Pradesh, 174001, India
Email: arun05bhardwaj@gmail.com

Abstract: Subjective wellbeing (SWB) is associated with happiness and life satisfaction. Depression, anxiety and stress represent three different but relating concepts to poor mental health. COVID-19 pandemic has negatively impacted the subjective well-being of employees during the lockdown, especially the employees relating to the tourism industry. Inter-industry and intra-industry comparison of tourism employees' psychological wellbeing during the peak of the second wave of COVID across India was done. Socio-demographic variables were checked separately for psychological wellbeing. Stratified random sampling was used for data collection. Data was collected through an online questionnaire using the WHO-5 wellbeing index and DASS21 scale for depression anxiety and stress during the peak COVID-19 wave. A sample from 93 employees was collected, of which, 55 employees were from the tourism industry. The results indicated that tourism industry employees as a whole and the employees engaged in activities within tourism had poor subjective

wellbeing and were depressed and anxious. Depression and anxiety among tourism employees were impacted by gender and job experience. Employers must use the WHO-5 wellbeing index and DASS-21 scale for keeping track of their employees' happiness and life satisfaction and their poor mental health.

Keywords: DASS21; WHO-5; COVID-19; employee subjective wellbeing; tourism employees.

Reference to this paper should be made as follows: Chauhan, R., Jishtu, H., Shaktan, A. and Kumar, A. (2024) 'Employees' psychological well-being in a pandemic: a case study during the peak of the COVID-19 wave in India', *Int. J. Indian Culture and Business Management*, Vol. 31, No. 1, pp.58–75.

Biographical notes: Rohit Chauhan is an Assistant Professor in the School of Hotel Management and Tourism at Lovely Professional University, India. He has completed a master's degree in computer applications and tourism. He has submitted PhD in sustainable rural tourism. His research interests include rural tourism, gastronomy, peace through tourism and consumer behaviour.

Himanshu Jishtu is an assistant professor in the subject of tour and travel at Bahra University Waknaghat, India. Her educational qualification includes a master's in geography and a Master's in travel and tourism management. Her research interests include consumer behaviour and wellness.

Alka Shaktan is a Clinical Psychologist, who is currently working as a junior research fellow at PGI, Chandigarh. Alka has also gained 2 years of clinical experience as a trainee clinical psychologist at PGIBAMS, Raipur. Alka holds an M. Phil degree in clinical psychology and a Master's degree in Psychology.

Arun Kumar is an Assistant professor in the subject of Tour and Travel at Govt. College Bilaspur, HP, India. His areas of research include Online Travel Agencies management, hotel revenue management, and supply chain management in Tourism Industry. His educational qualification includes MBA in Tourism & Hospitality from NITHM Hyderabad India. He is currently working on his PhD thesis that focuses on IOR between OTAs and Hotels in the state of Himachal Pradesh, India.

1 Introduction

Since January 2020, the world is witnessing the COVID-19 pandemic and it has impacted all spheres of human life. A global economic crisis was also encountered by the world 2008, but the COVID-19 pandemic is hitting the global population in waves. These waves were the result of a mutation in the virus. The successive waves of COVID-19 had not only become a matter of concern for public health but have also impacted the economy. COVID-19 has a severe impact on the economy of the service sector. The most affected among service sectors are tourism and its allied sub-sectors along with other sectors like education, health, and public services. We did have examples from around the world where COVID-19 have its impact on economies (Xiang et al., 2021; Feyisa, 2020; Lim and To, 2021; Foo et al., 2021; Susilawati et al., 2020).

Although India is the land of providing concepts of spirituality (Dhir and Sharma, 2020) and yoga (Sreekumar et al., 2021) as solutions for coping with stress but the ambit of negative psychological impacts of COVID-19 has engulfed Indian employees along with the business (Singh and Agrawal, 2022), especially the tourism industry (Jaipuria et al., 2021; Kaushal and Srivastava, 2021). Employees engaged in the tourism industry are not only facing economic hardship but the continuous nature of the new COVID virus-induced lockdown is impacting their psychological wellbeing (Karatepe et al., 2021). The impact on employees is psychological, because of job loss or salary cut intentions in the tourism industry which is most vulnerable to any type of crisis (Sun et al., 2021). The nature of this COVID-19 encouraged economic crisis is contemporary to the waves that are hitting the different economic sectors. Whenever the number of COVID-19 cases rises, it results in the halting of all activities including tourism activities.

The successive waves of COVID-19 further worsen the situation for employees. When the COVID is hitting in waves, the persistent impact on employee psychological condition could be easily visualised. There is a study which says that the successive waves of COVID-19 have an impact on large sections of the population. A section of the population became more resilient in terms of dealing with the crisis. But it was also suggested that vulnerable sections must be protected if such a crisis hit again. Studies have identified women and children as the most vulnerable sections (Manchia et al., 2022; Meyer et al., 2021). The studies did not talk about the psychological wellbeing of employees during the COVID crisis. There were suggestions in the context of healthcare employees but not for tourism industry employees (Haque, 2021). The peak of COVID-19 meant the duration when several cases reach their maximum. This study tries to investigate the mental health of employees engaged in the tourism industry during the peak of the second COVID-19 wave in India. The second wave of COVID-19 was because of its delta strain which was considered the deadliest and resulted in 240,000 registered deaths in India (The Indian Express, 2022).

This study attempts to tap the psychological wellbeing of service sector employees during the peak of the second COVID-19 wave in India. Especially this study would focus on the subjective wellbeing of tourism sector employees. The attempts to tap the wellbeing would be achieved through the most efficient scales for measuring the quality of life and three major indicators of psychological wellbeing.

2 Literature review

2.1 COVID-19 and employee mental health

COVID-19 have a significant impact on the population. In terms of the scale and the longevity of the disease, COVID-19 is the biggest pandemic world has witnessed (Park et al., 2022). While on one side it could be said that there were negative impacts of the pandemic, there the stock markets were holding hope for the future (Jain, 2021). On the positive side, there exist examples where a huge amount was collected through CSR initiatives (Dwivedi and Kumar, 2021). Attempts were also made to tackle this pandemic through social entrepreneurship, where wisdom source was inherited from ancient texts (Padhy and Bhaskar, 2022). There hardly existed a section of the population during the pandemic which did not face the fear of contamination. The consequences of the COVID

pandemic varied across the sections. In the case of China, the most impacted in the non-employment sector are the psychiatric patients (Hao et al., 2020).

In another case from Spain young population, who were suffering from the chronic disease were having more depression, anxiety, and stress as compared to the old population. Alcohol consumption also increased during this COVID-19 period (Ozamiz-Etxebarria et al., 2020). It is believed that employees have better subjective well-being than those who are unemployed (Jebb et al., 2020). But there seems an impact of COVID-19 on the mental health of employees. The first ones who felt the impact of COVID-19 are health care employees. This could be concluded from a study conducted in Turkey, which said that COVID-19 have negatively impacted the mental health of healthcare employees. Among other factors, the transmission of disease to the family remains a major reason to fear (Tengilimoglu et al., 2021).

If the gender of employees is to be considered, then impacts on depression, anxiety, and stress were greater among female employees than male employees. The same results were acquired from a study conducted on Denmark citizens. Female psychological wellbeing was more negatively impacted by the COVID-19 pandemic as compared to males (Sonderskov et al., 2020). In India, it was students and healthcare professionals, who were having more stress, depression, and anxiety compared to the corporate employee, academicians, and mental health workers (Rehman et al., 2020). Another study conducted among the general population in India showed that the general population measures related to mental health need to be introduced from the government side (Verma and Mishra, 2020).

2.1.1 COVID-19 and tourism employee mental health

Different organisations provide different working cultures and wellbeing is subject to change across cultures (Diener et al., 2018). Tourism was considered a tool to achieve wellbeing (McCabe and Johnson, 2015), but the same employee who manages this tourism industry was severely impacted by the COVID-19 pandemic. COVID-19 had resulted in stress among employees indulged in the tourism and hospitality sector. This stress further impacted organisational trust, job satisfaction, and self-esteem among employees (Kang et al., 2021). There were case studies, where immigrant hospitality workers were discriminated against for organisational health benefits common to a citizen of that country during the time of pandemic (Sonmez et al., 2020). In the hotel industry during this pandemic, the occupational stressors (unstable and more demanding hotel working environment stressors and unethical hotel labour practices-borne stressors) were negatively impacting job satisfaction and organisational commitment. Job satisfaction and organisational commitment in turn positively impacted job performance, subjective wellbeing, and prosocial behaviour (Wong et al., 2021).

The crisis had not only impacted stakeholders in all of its forms (Sigala, 2020) but also impacted the employees. COVID-19 had resulted in job insecurity among employees in the tourism industry. Additionally, the risk of getting affected at the job place also increased (Bajrami et al., 2021). Among the hotel employees, the fear of getting affected is high which affects their ability to service (Park and Hai, 2021). Sigala (2020) had advised that academics must understand the transformational nature of COVID-19 and advise some dynamic measures to deal with the crisis. The stages that were identified by the author were 'response', 'recovery', and 'reset.' Pandemic had forced various management-level employees to work from home, which also has a few pros and cons

(Chi et al., 2021). The impacts are not limited to the management level in the organisation, it would have also impacted supervisory and executive level employees in an organisation. The fear of COVID among women was higher in a study conducted in Israel (Bitan et al., 2020; Tengilimoglu et al., 2021).

In a study from Ghana, it was found that attractions, travel and tour sub-sectors within tourism were the worst hit. Restaurant and accommodation units faced the impact of a pandemic but this impact was temporary and their road to recovery would be easy (Kimbu et al., 2021). Tourism employees as compared to non-tourism employees seem more pessimistic about their future (Peterson and DiPietro, 2021). COVID-19 has negatively impacted employees in all the services sectors. Among the employees, women were the worst hit by the pandemic. Problems faced by the employees ranged from economic hardships to psychological wellbeing. Crisis contingency plans were suggested by a study for employees during the time of the pandemic (Bichler et al., 2021). Similar plans are needed for the employees, who are facing psychological ailments. For that, there is a need to measure the positive and negative aspects of employee mental health.

2.2 Subjective wellbeing

Positive psychology covers concepts like happiness or subjective wellbeing and life satisfaction. Subjective wellbeing (SWB) is a concept that emerged out of the concept of Quality of life (Holm et al., 2017). These aspects of positive psychology had merely been inherited in tourism well-being research. Well-being is of two types hedonic and eudemonic, where the former concept was inherited from Greek philosopher Aristippus and later was inherited from Aristotle. Hedonic wellbeing meant happiness for a short period and eudemonic wellbeing is related to self-development and transformation or long-term happiness (Smith and Diekmann, 2017). If something had been researched about positive psychology and subjective wellbeing to an extent about tourism, then those were focused mainly on tourist wellbeing and the studies were only conducted in developed countries (Vada et al., 2020).

The studies were conducted either from a tourism provider or tourist perspective, but there are very few studies that focus on the wellbeing of tourism industry employees. Eudaemonic wellbeing is the form of wellbeing that can improve health. Eudaemonic wellbeing can be achieved by self-acceptance, environmental mastery, purpose in life, positive relations with others, personal growth, and autonomy (Ryff and Keyes, 1995; Ryff, 2018). SWB had emerged as such a useful tool during past years that its inclusion in policy formulation was also talked about with the help of maintaining an index of SWB for each individual (Diener et al., 2018). Beyond this, understanding the meaning of community well-being might also help in adopting a bottom-up approach for the implementation of any policy (Buzinde et al., 2013).

2.2.1 WHO-5 wellbeing scale

WHO-5 is a 5-point wellbeing scale, that has been used in past to determine psychological wellbeing and was used as a general scale of wellbeing and depressive symptoms. This scale can be used in clinical trials and research studies. In research studies, its applications are believed to be valid in cases of sample wellbeing comparison and comparison of wellbeing in longitudinal research (Topp et al., 2015). This had recently been used in longitudinal studies after interventions (Feicht et al., 2013), used for

employee's wellbeing from 34 European countries (Schutte et al., 2014), used for assessing mental health among Chinese employees (Gao et al., 2014), used to measure emotional wellbeing and depressive symptoms among German employees (Jung et al., 2012).

2.3 Depression, anxiety, and stress

In an attempt to define depression Beck and Alford (2009, pp.1–11) provided five attributes, by which depression might be described. These were 'specific alteration in the mood', 'negative self-concept associated with self-reproaches and self-blame, 'regressive and self punitive wishes', 'vegetative changes', and 'changes in activity level'. Edward (1953) defined depression as the "emotional expression of a state of ego-helplessness and ego-powerlessness to live up to certain strongly maintained narcissistic aspirations". Later, Torres (2020) defined depression as "a common and serious mental illness that negatively affects how you feel, the way you think and how you act". Anxiety had been termed as a condition to knowing about the world and also did have a paralysing effect [Salecl, (2004), p.9]. The concept of anxiety is closely related to fear and depression. Fear is related to unpleasant events about to happen immediately; anxiety is related to a mental state which comes with a future threat, and depression is a mental state with a feeling of loss or failure. Depression could be handled by the withdrawal of that mental state, anxiety by avoidance, and fear by escape (Craske et al., 2011).

Stress was defined as the "experience of perceived threat (real or imagined) to one's mental, physical or spiritual well-being, resulting from a series of psychological responses and adaptations". The four types of stress were co-rumination, eustress, neustress, and distress. The bad stress was distress and it was further subdivided into acute stress and chronic stress, based on intensity and timings (Selye, 2018). Various scholars had termed our age as the 'age of stress', because of diminishing fears of basic facilities and emerging fears of uncontrollable events, at least by an individual (Seyle, 1991). Stress might be the outcome of any of the three factors related to one's life: eventful experiences, life strains, and self-concepts (mastery and self-esteem) (Pearlin et al., 1981). Depression and anxiety were related, and patients tend to share both illnesses most of the time together. The togetherness of these may result in severe conditions for a patient (Tiller, 2012). About stress, depression had also been called an indicator of stress (Pearlin et al., 1981), but in the case of causal stress, it may lead to depression (Constance, 2005).

2.3.1 Depression, anxiety and stress scale (DASS21)

Depression, anxiety, and stress scale (DASS) and Beck inventories were the best available scales, but DASS is a better parameter for knowing depression, anxiety, and stress as compared to Beck inventories (Lovibond and Lovibond, 1995). DASS21 is considered the best scale for generally measuring psychological distress and more generally depression, anxiety and stress (Henry and Crawford, 2011). This is a robust scale as its internal consistency and convergent and divergent validity have been tested on four racially different samples in the US (Norton, 2007). DASS-21 had been used for studies conducted at the time of the COVID-19 pandemic. This was used in a sample of psychiatric patients in China (Hao et al., 2020), used among a heterogeneous population

including students, researchers, health professionals, corporate employees, mental health professionals, and academicians in India (Rehman et al., 2020), another study on the general public in India (Verma and Mishra, 2020) and among adult population in Spain (Ozamiz-Etxebarria et al., 2020). There is another version of the DASS21 scale named DASS18 which is suggested for Asian communities, but the samples of that study were not collected from India (Oei et al., 2014). So, for conducting this study we are ignoring the DASS18 scale.

2.4 Research gap

Wellbeing is subject to change across cultures. India also consists of different cultural values (Singh and Sharma, 2009). The most vulnerable sector of the economy from COVID-19 at the time of crisis remains the service sector. Within the service sector tourism was one of the worst-hit sectors. Thus, when wellbeing varies across cultures and employees in India also come from varied cultures and working culture also varies from organisation to organisation, then it would be interesting to check wellbeing among employees. Psychological wellbeing is one of the types of wellbeing. Psychological wellbeing could be traced with the help of the WHO-5 and DASS21 scales. So, based on the extensive literature review this could be said that work cultures and thus psychological wellbeing can vary within the employees of service sub-sectors and across the socio-demographic characteristics. Thus, there emerges a need to look for the psychological wellbeing of employees engaged in the services sector and especially among sub-sectors of tourism. The impact of CVOID-19 on the psychological wellbeing of employees varies across the demographic profiles of employees.

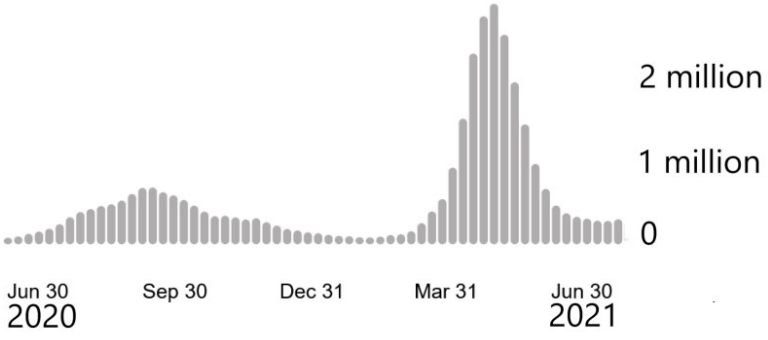
3 Research methodology

This study would look at the mental health of employees engaged in the service sector and especially within the tourism sub-sectors. Good and poor mental health would be measured with the help of the WHO-5 wellbeing scale and DASS21 scale. The values for these scales were pre-defined and based on the percentage of employees in the studied sector were identified against their wellbeing, depression, anxiety and stress. This would help in identifying the sectors with the good and poor mental health of employees. Further, with the help of t-test and ANOVA, mental health along demographic profiles would be compared.

3.1 Sample and timing for data collection

An online questionnaire was administered with the help of Google Forms. The data was collected during the peak period of COVID-19 cases in India from 29 April 2021 to 30 May 2021. This was the period when it was believed that the second Covid wave had hit the Indian population. Figure 1 shows the number of cases that were reported in India from 30 June 2020 to 30 June 2021. It can be seen that number of cases was highest during the period when data for this study was collected. On 7 May 2021, total number of confirmed cases was 414,188, the highest since the COVID-19 outbreak. After 30 June 2021 COVID curve started flattening (WHO, 2021).

Figure 1 Number of cases registered in India from June 2020 to June 2021



Source: WHO (2021)

3.2 Exclusion criteria

Respondents who were already seeing a doctor for any psychological condition were excluded from the data. The ones who were seeing doctors were not included because this might not help us include the natural state of an employee. There shall remain a risk of biasness as medicated or diagnosed employees would answer influenced by diagnosis. The other exclusion criteria were the unemployed candidates. This study was meant for investigating the psychological well-being of employees, so the unemployed ones were excluded.

3.3 Research instrument

A structured online questionnaire was developed for this study. This questionnaire was aimed at collecting data about socio-demographic variables, employment-related variables, WHO-5 wellbeing items scale, and DASS-21 scale items. Socio-demographic variables included age, gender, marital status, and education. Employment-related variables included employment sector, employee organisational level (management, supervisory, or executive), employee income, job experience, and job location. Before the WHO-5 and DASS21scales, a question was positioned whether the employee is seeing a doctor for any psychological condition or not? In the second phase, questions were asked from the world health organisation's wellbeing scale (WHO-5) having five items, and from the depression, anxiety, and stress scale (DASS-21) having 21 items. These 21 items were subdivided into groups of seven each indicating depression, anxiety, and stress. In the earlier studies, the WHO-5 scale was seen as a tool to find depression among people (Primack, 2003; Krieger et al., 2014). The same attempt would be made by analysing values of WHO-5 with depression, anxiety, stress, and DASS-21 scores.

3.4 Statistical analysis

The analysis was done with the help of IBM SPSS 22. Descriptive statistics were used to analyse the socio-demographics. To answer the primary question of psychological health, the employment sector variable was analysed for intersectoral and intra-sectoral comparison. The impact of sociodemographic variables on wellbeing, depression,

anxiety, and stress was analysed with the help of comparing two or several means with a t-test and analysis of variance (ANOVA).

4 Results and discussion

4.1 Socio-demographic characteristics

Data were collected from 93 respondents through an online survey and socio-demographic characteristics were displayed in Table 1. The majority of respondents were males (80% approximately) and were in the age group of 20–29 years (57% approx.). Females in comparison to males were approximately one-fourth and in the case of age group, almost all of the respondents were in their 20s and 30s. The majority of respondents were unmarried (i.e., 70% approx.) and the same proportion of respondents have completed their post-graduation. In the case of yearly income, approximately 43% of respondents were having income less than INR 200K. 33% of respondents were earning between 200K and 500K and 19% of respondents were earning between 500K and 1.2 million. There were only 5% of respondents who were earning more than INR 1.2 million.

In the case of the employment level, a maximum number of the respondents were at the managerial level (i.e., 39%) and an equal number of respondents (i.e., 28% approximately) were at supervisory and executive positions. The majority of the respondents were having experience of fewer than 5 years (62%) and there were only 9% of employees, who were having experience of more than 10 years. Maximum of the employees were from the tourism industry and were working in the private sector. These sub-sectors included travel agencies, tourism activities, and basic services (transportation, accommodation, and F&B). Apart from the samples of travel agencies, 19 samples were collected from other private enterprises and the same number of samples was collected from government institutions.

The values which were collected with the help of the WHO-5 wellbeing index were analysed with the help of already defined values. The values range from 0 to 25, 0 representing the worst possible quality of life and 25 representing the highest quality of life. The value below 13 is a matter of concern and in that case, the depression inventory of the ICD-10 scale is to be followed. In the case of DASS-21, seven of each statement were provided for tapping depression, anxiety and stress. Levels of depression, anxiety, and stress were classified into normal, mild, moderate, severe, and extremely severe conditions. Results after this classification were provided in Table 2. In the case of DASS-21, lower values indicate the normal state of poor health indicators and higher values indicate a severe state of poor health (Lovibond and Lovibond, 1995).

Well-being and quality of life were poor among females as compared to their male counterparts. It was 14 in the case of females and case of males it was 17. A married person's quality of life (QOL) was poor as compared to unmarried employees. QoL was poor for more educated ones and for those who were earning more. The difference in mean scores was not big but it was considerable. In the case of level of employment, executes faced more impacts and were having poor quality of life as compared to employees at the managerial level. Well-being was getting poor with an increase in job experience. Quality of life was good among employees engaged in the tourism industry as compared to the employees engaged in other private sectors and public sectors.

Table 1 Socio-demographic profiles of respondents and mean scores of wellbeing, depression, anxiety, and stress

		Employees (n = 93)	*Mean scores of*			
			WHO-5	*Depression*	*Anxiety*	*Stress*
Gender	Male	75 (80.6%)	17	5	4	5
	Female	18 (19.4%)	14	4	3	5
Age group	20–29	53 (57%)	16	5	4	5
	30–39	37 (39.8%)	17	5	4	5
	40–49	3 (3.2%)	18	1	1	3
Marital status	Married	30 (32.3%)	16	5	4	5
	Unmarried	63 (67.7%)	18	4	4	5
Highest education	10+2	4 (4.3%)	19	3	4	4
	Graduation	16 (17.2%)	17	5	4	5
	Postgraduation	66 (71%)	16	5	4	6
	Doctorate	7 (7.5%)	16	2	2	2
Yearly income (in INR)	<200,000	38 (40.9%)	17	5	4	5
	200k–500k	31 (33.3%)	17	5	4	6
	500k–1.2 million	19 (20.4%)	15	4	4	5
	>1.2 million	5 (5.4%)	9	2	3	4
Employment status	Managerial	38 (40.9%)	17	5	4	5
	Supervisory	29 (31.2%)	16	6	5	6
	Executive	26 (28%)	15	5	4	5
	Unemployed	5 (.1%)	19	1	2	2
Job experience (in years)	<5	57 (61.3%)	16	6	5	6
	5–10	27 (29%)	17	4	3	4
	>10	9 (9.7%)	15	2	2	4
Sector	Tourism	55 (59.1%)	17	5	4	5
	Travel agency	27 (49.1%)	16	5	4	5
	Tourism activities	20 (36.4%)	19	6	5	6
	Basic services	8 (14.5%)	16	3	3	4
	Private	19 (20.4%)	13	5	5	6
	Public	19 (20.4%)	16	4	3	5

4.2 Inter-sectoral and intra-sectoral comparison of employees engaged in the tourism industry

Based on the predefined values of depression, anxiety, and stress level were distributed among normal, mild, moderate, severe, and extremely severe, which were presented in Table 2. In the tourism sector, there was a maximum number of employees with an extremely severe level of depression and within the tourism industry, these employees were maximum among employees providing basic activities. Among the employees of public, private, and tourism industry employees, tourism industry employees were that

section with normal depression levels. Anxiety, an extremely severe condition was among employees of the tourism industry. Among tourism industry employees, employees engaged in basic activities were most extremely severe. Stress was less severe among private-sector employees and was more severe among employees of the public sector. In the tourism industry, employees engaged in basic activities were having maximum stress.

Table 2 Inter and intra sectoral comparison of employee's depression, anxiety, and stress of tourism employees

	Normal	*Mild*	*Moderate*	*Severe*	*Extremely severe*
			Depression		
Tourism (55)	26 (47%)	12 (22%)	8 (15%)	2 (4%)	7 (13%)
Private (19)	12 (63%)	1 (5%)	3 (16%)	3 (16%)	0
Public (19)	12 (63%)	1 (5%)	3 (16%)	2 (11%)	1 (5%)
Total (95)	50 (54.1%)	14 (14.3%)	14 (16.3%)	7 (7.1%)	8 (8.2%)
			Intra-sectoral comparison of the tourism sector		
Basic services (8)	5 (62%)	3 (38%)	0	0	0
Travel agency (27)	11 (41%)	8 (30%)	5 (19%)	2 (7%)	1 (4%)
Activities (20)	10 (50%)	1 (5%)	3 (15%)	0	6 (30%
			Anxiety		
Tourism (55)	25 (45%)	4 (7%)	17 (31%)	4 (7%)	5 (9%)
Private (19)	9 (47%)	2 (11%)	3 (16%)	3 (16%)	2 (11%)
Public (19)	13 (68%)	1 (5%)	2 (11%)	1 (5%)	2 (11%)
Total (95)	47 (50.1%)	7 (7.1%)	22 (24.5%)	8 (8.2%)	9 (9.2%)
			Intra-sectoral comparison of the tourism sector		
Basic services (8)	4 (50%)	0	4 (50%)	0	0
Travel agency (27)	12 (45%)	4 (15%)	8 (30%)	2 (7%)	1 (4%)
Activities (20)	9 (45%)	0	5 (25%)	2 (10%)	4 (20%)
			Stress		
Tourism (55)	41 (75%)	5 (9%)	4 (7%)	5 (9%)	0
Private (19)	12 (63%)	2 (11%)	4 (21%)	1 (5%)	0
Public (19)	15 (79%)	0	1 (5%)	3 (16%)	0
Total (95)	68 (74.5%)	7 (7.1%)	9 (9.2%)	9 (9.2%)	0
			Intra-sectoral comparison of the tourism sector		
Basic services (8)	6 (75%)	1 (12.5%)	1 (12.5%)	0	0
Travel agency (27)	22 (81%)	4 (15%)	1 (4%)	0	0
Activities (20)	13 (63%)	0	2 (10%)	5 (25%)	0

4.3 Impact of socio-demographic variables on employee's wellbeing, depression, anxiety, and stress

The impact of demographic variables on wellbeing, depression, anxiety, and stress was studied with the help of a comparison of means for all of the employees engaged in this study irrespective of their employment sector. Only those results were displayed in Table 3, where demographics were having a significant impact on any of the dependent variables i.e., depression, anxiety, stress, and wellbeing. Table 4 represents the comparison and analysis of employees which were only engaged in tourism industry subsectors. Results of only those comparisons were displayed in the table which was having a significant impact. None of the non-significant impact results was displayed in Tables 3 and 4.

Table 3 Impact of the demographic variables on the mental health of service sector employees

S. no.	*Demographic IDV*	*Categories*	*Mean*	*Dependent variable*	*t*	*Sig.*
			Independent t-test results			
1	Gender	Male	16.76	Wellbeing	2.016	.047
		Female	13.50			
			ANOVA results			
1	Income level	<2 Lakhs	17.13	Wellbeing	2.746	.048
		2–5 Lakhs	16.48			
		5–12 Lakhs	15.42			
		>12 Lakhs	9			
2	Income level	<2 Lakhs	5.34	Depression	4.698	.008
		2–5 Lakhs	5.13			
		5–12 Lakhs	4.32			
		>12 Lakhs	2			

On average male respondents were having more wellbeing (M = 16.76, SE = .679), than female respondents (M = 13.50, SE = 1.712). This difference, 3.260, BCa 95% CI [0.048, 6.472], was significant t (91) = 2.016, p = .047; however, it did represent a medium-sized effect, d = 0.5. There was a significant effect on the income level of employee wellbeing, F(3, 89) = 2.746, p = .048, ω = .23. Well-being was least in the case of employees earning the maximum among four categories. A value of less than 13 is not considered good well-being. Well-being was the maximum of the least earning group of employees There was a significant effect of the income level of an employee on depression, F(3, 89) = 4.698, p = .008. Depression decreases with an increase in the income of an employee. The ones who were earning maximum were having the least value of depression.

On average male respondents were more depressed (M = 5.77, SE = 0.723), than female respondents (M = 1.75, SE = 0.726). This difference, 4.016, BCa 95% CI [1.902, 6.130], was significant t (53) = 3.920, p = .001; however, it did represent a large sized effect, d = 1.96. On average male respondents were having more anxiety (M = 4.70, SE = 0.582), than female respondents (M = 1.38, SE = 0.800). This difference, 3.327, BCa 95% CI [0.408, 6.247], was significant t (53) = 2.286, p = .026; however, it did represent a large sized effect, d = 1.47. On average married respondents were having more wellbeing

(M = 20.19, SE = 1.155), than unmarried respondents (M = 15.87, SE = 0.959). This difference, -4.316, BCa 95% CI [–7.362, –1.270], was significant t (53) = -2.578, p = .013; however, it did represent a medium sized effect, d = 0.72.

Table 4 Intra sector analysis of the demographic variable impact on the tourism industry

S. no.	*Demographic IDV*	*Categories*	*Mean*	*Dependent variable*	*t*	*Sig.*
			Independent t-test results			
1	Gender	Male	5.77	Depression	3.920	.001
		Female	1.75			
2	Gender	Male	4.70	Anxiety	2.286	.026
		Female	1.38			
3	Marital status	Married	20.19	Wellbeing	–2.578	.013
		Unmarried	15.87			
			ANOVA results			
1	Age (in years)	20–29	3.62	Anxiety	12.880	.003
		30–39	5.68			
		40–49	.50			
2	Experience (in years)	<5	5.81	Depression	10.565	.001
		6–10	4.57			
		>10	1.50			
3	Experience (in years)	<5	4.81	Anxiety	9.253	.002
		6–10	3.50			
		>10	1.25			

There was a significant effect of age category on anxiety, F(2, 52) = 12.880, p = .003, ω = .24. Anxiety was most among the age group of 30-39 years of age. It was least among the age group of 40-49 years. There was a significant effect of job experience of employees on depression, F(2, 52) = 10.565, p = .001, ω = .15. Depression was maximum among employees with job experience of fewer than 5 years. It was least among the employees with job experience of more than 10 years. There was a significant effect of the experience of employees on anxiety, F(2, 52) = 9.253, p = .002, ω = .17. Anxiety was highest among employees with less experience and was least among employees with maximum experience.

4.4 Discussion

Overall male wellbeing was better during COVID-19 as compared to their female counterparts among employees of the service sector. This study confirms the results provided in a study done in Oman (Badahdah et al., 2020). Another study also provided the same results where it was seen that female psychological wellbeing was more negatively impacted (Sonderskov et al., 2020). Tourism industry employees were most severely impacted, the same results were presented by previous studies (Bajrami et al., 2021; Park and Hai, 2021). Among the tourism industry, it was employees engaged in tourism-related outdoor or indoor activities, who were more severely impacted because of COVID-19 as compared to those employees engaged in the travel industry or basic

services (accommodation, transportation, and food and beverages). This study does not find significant differences in the employment level of employees on subjective wellbeing, which was found in a previous study by Bitan et al. (2020).

Income level plays a major role in defining wellbeing and depression among overall employees. Well-being decreased with an increase in income and depression decreased with an increase in income. In the case of employees engaged in the tourism industry, married employees' mental wellbeing was better. Male employees engaged in the tourism industry seem more anxious and depressed as compared to their female counterparts. Age also determines the level of anxiety among tourism employees which was maximum in the case of youths in their 30s. Depression and anxiety also decrease with an increase in job experience.

5 Conclusions

Employee wellbeing becomes a major issue for an organisation in terms of job satisfaction and thus organisational growth. This could only be achieved through continuous monitoring of employees during the crisis. The crises may vary in nature from health to economic. Although this study was conducted during the peak of the second wave of the COVID-19 pandemic, this approach of checking employees' quality of life, depression, anxiety, and stress could be helpful at any time, especially when there surfaces some productivity-related issue in an organisation. This study said that females, high-earning employees, more educated employees and married ones were having poor SWB. WHO-5 wellbeing scale is having 5 items and depression, anxiety and stress were having seven items each. This scale becomes easy to use and has a different section for different conditions being faced within an organisation. Among the service sector employees, SWB varied along the gender of employees and SWB and depression varied along income level. Within the tourism industry employees, depression levels varied along gender and experience of employees, anxiety varied along gender, age and experience and SWB varied across the marital status. This is the only study where the psychological well-being of employees was investigated during the peak of the COVID-19 wave in India. Whereas all of the other studies had not perceived the timings in such a specific manner.

5.1 Theoretical and practical implications

This study looked into the mental health of employees along with the identification of a few vulnerable sections among employees. Managers must try to keep track of vulnerable employees' psychological well-being especially female employees. This study also shed light on the need for a plan that how an organisation would try to have a better quality of life during an epidemic/pandemic/crisis-like situation. Another practical implication is linked with the use of the WHO-5 wellbeing scale as a tool to keep track of employees in an organisation and of a citizen in a country or some specific district affected by some severe situation. This study proposes the scales for monitoring mental health among service sector employees.

5.2 Limitations and future research

Data for a study plays a major role in the reliability of a study. The data for the study was the only limitation of this study. The researcher could not overcome this limitation because the data was only collected during the peak of the second COVID-19 wave in India. The second wave of COVID-19 has severely impacted the population in India. There came a third wave of COVID-19 in India with an omicron variant, but the impact was not severe and data collection during the third wave would not capture the severe impact of a crisis.

References

Badahdah, A. et al. (2020) 'The mental health of health care workers in Oman during the COVID-19 pandemic', *International Journal of Social Psychiatry*, Vol. 67, No. 1, pp.1–6.

Bajrami, D.D. et al. (2021) 'Will we have the same employees in hospitality after all? The impact of COVID-19 on employees' work attitudes and turnover intentions', *International Journal of Hospitality Management*, Vol. 94.

Beck, A.T. and Alford, B.A. (2009) *Depression: Causes and Treatment*, 2nd ed., University of Pennsylvania Press, Philadelphia.

Bichler, B.F., Petry, T. and Peters, M. (2021) ''We did everything we could': how employees make sense of COVID-19 in the tourism and hospitality industry', *Current Issues in Tourism*.

Bitan, D.T. et al. (2020) 'Fear of COVID-19 scale: psychometric characteristics, reliability and validity in the Israeli population', *Psychiatry Res.*, Vol. 289.

Buzinde, C.N., Kalavar, J.M. and Melubo, K. (2013) 'Tourism and community well-being: the case of the Massai in Tanzania', *Annals of Tourism Research*, Vol. 44, No. 1, pp.20–35.

Chi, O.H., Saldamli, A. and Gursoy, D. (2021) 'Impact of the COVID-19 pandemic on management-level hotel employees' work behaviours: moderating effects of working-from-home', *International Journal of Hospitality Management*, Vol. 98, No. 3.

Constance, H. (2005) 'Stress and depression', *Annual Review of Clinical Psychology*, Vol. 1, No. 1, pp.293–319.

Craske, M.G. et al. (2011) 'What is an anxiety disorder?', *FOCUS*, Vol. 9, No. 3, pp.369–388.

Dhir, R. and Sharma, V. (2020) 'Exploring dimensions of psychological capital through grounded theory investigations', *International Journal of Indian Culture and Business Management*, Vol. 20, No. 1, pp.109–132.

Diener, E., Oishi, S. and Tay, L. (2018) 'Advances in subjective well-being research', *Nature Human Behaviour*, Vol. 2, No. 4, pp.253–260.

Dwivedi, M.K. and Kumar, V. (2021) 'Impact of lockdown and CSR activities undertaken by the corporates during COVID-19 in India', *International Journal of Indian Culture and Business Management*, Vol. 22, No. 4, pp.558–589.

Edward, B. (1953) 'The mechanism of depression', *Affective Disorders: Psychoanalytic Contributions to their Study*, pp.13–48, International University Press. s.l.

Feicht, T. et al. (2013) 'Evaluation of a seven-week web-based happiness training to improve psychological well-being, reduce stress, and enhance mindfulness and flourishing: a randomized controlled occupational health study', *Evidence-Based Complementary and Alternative Medicine*, Vol. 2013.

Feyisa, H.L. (2020) 'The world economy at COVID-19 quarantine: a contemporary review', *International Journal of Economics, Finance and Management*, Vol. 8, No. 2, pp.63–74.

Foo, L.-P., Chin, M.-Y., Tan, K.-L. and Phuah, K.-T. (2021) 'The impact of COVID-9 on the tourism industry in Malaysia', *Current Issues in Tourism.*

Gao, J. et al. (2014) 'Workplace social capital and mental health among Chinese employees: a multi-level, cross-sectional study', *Plos One*, Vol. 9, No. 1.

Hao, F. et al. (2020) 'Do psychiatric patients experience more psychiatric symptoms during the COVID-19 pandemic and lockdown? A case-control study with service and research implications for immunopsychiatry', *Brain, Behavior, and Immunity*, Vol. 87, pp.100–106.

Haque, A. (2021) 'The COVID-19 pandemic and the role of responsible leadership in health care: thinking beyond employee well-being and organizational sustainability', *Leadership in Health Services*, Vol. 34, No. 1, pp.52–68.

Henry, J.D. and Crawford, J.R. (2011) 'The short-form version of the depression anxiety stress scales (DASS-21): construct validity and normative data in a large non-clinical sample', *British Journal of Clinical Psychology*, Vol. 44, No. 2, pp.227–239.

Holm, M.R., Lugosi, P., Croes, R.R. and Torres, E.N. (2017) 'Risk-tourism, risk-taking and subjective well-being: a review and synthesis', *Tourism Management*, Vol. 63, pp.115–122.

Jain, K. (2021) 'A study of investment opportunities and investors' sentiments during the COVID-19 pandemic', *International Journal of Indian Culture and Business Management*, Vol. 24, No. 3, pp.283–302.

Jaipuria, S., Parida, R. and Ray, P. (2021) 'The impact of COVID-19 on the tourism sector in India', *Tourism Recreation Research*, Vol. 46, No. 2, pp.245–260.

Jebb, A.T., Morrison, M., Tay, L. and Diener, E. (2020) 'Subjective well-being around the world: trends and predictors across the life span', *Psychological Science*, Vol. 31, No. 3, pp.293–305.

Jung, J., Lehner, B. and Schmidt, A. (2012) 'Exploring the association between social capital and depressive symptoms', *Journal of Occupational and Environmental Medicine*, Vol. 54, No. 1, pp.23–30.

Kang, S-E., Park, C., Lee, C-K. and Lee, S. (2021) 'The stress-induced impact of COVID-19 on tourism and hospitality workers', *Sustainability*, Vol. 13, pp.1–17.

Karatepe, O.M., Saydam, M.B. and Okumus, F. (2021) 'COVID-19, mental health problems, and their detrimental effects on hotel employees' propensity to be late for work absenteeism, and life satisfaction', *Current Issues in Tourism*, Vol. 24, No. 7, pp.934–951.

Kaushal, V. and Srivastava, S. (2021) 'Hospitality and tourism industry amid COVID-19 pandemic: perspectives on challenges and learning from India', *International Journal of Hospitality Management*, Vol. 92.

Kimbu, A.N., Adam, I., Dayor, F. and Jong, A.D. (2021) 'COVID-19- induced redundancy and socio-psychological well-being of tourism employees: Implications for organizational recovery in a resource-scarce context', *Journal of Travel Research.*

Krieger, T. et al. (2014) 'Measuring depression with a well-being index: future evidence for the validity of the WHO well-being index (WHO-5) as a measure of the severity of depression', *Journal of Affective Disorders*, Vol. 156, No. 1, pp.240–244.

Lim, W.M. and To, W-M. (2021) 'The economic impact of a global pandemic on the tourism economy: the case of COVID-19 and Macao's destination- and gambling-dependent economy', *Current Issues in Tourism*.

Lovibond, P.F. and Lovibond, S.H. (1995) 'The structure of negative emotional states: comparison of the depression anxiety stress scales (DASS) with the beck depression and anxiety inventories', *Behaviour Research and Theory*, Vol. 33, No. 3, pp.335–343.

Manchia, M. et al. (2022) 'The impact of the prolonged COVID-19 pandemic on stress resilience and mental health: a critical review across waves', *European Neuropsychopharmacology*, Vol. 55, pp.22–83.

Manchuria, M. et al. (2022) 'The impact of the prolonged COVID-19 endemic on stress resilience and mental health: A critical review across waves', *European Neuropsychopharmacology*, Vol. 55, pp.22–83.

McCabe, S. and Johnson, S. (2015) 'The happiness factor in tourism: subjective well-being and social tourism', *Annals of Tourism Research*, Vol. 41, pp.42–63.

Meyer, B. et al. (2021) 'Employee psychological well-being during the COVID-19 pandemic in Germany: a longitudinal study of demands, resources, and exhaustion', *International Journal of Psychology*, Vol. 56, No. 4, pp.532–550.

Norton, P.J. (2007) 'Depression, anxiety and stress scales (DASS-21): psychometric analysis across four racial groups', *Anxiety, Stress and Coping: An International Journal*, Vol. 20, No. 3, pp.253–265.

Oei, T.P., Sawang, S., Goh, Y.W. and Mukhtar, F. (2014) 'Using the depression anxiety stress scale 21 (DASS-21) across cultures', *International Journal of Psychology*, Vol. 48, No. 6, pp.1018–1029.

Ozamiz-Etxebarria, N., Dosil-Santamaria, M., Picaza-Gorrochategui, M. and Idoiaga-Mondragon, N. (2020) 'Stress anxiety and depression levels in the intial stage of the COVID-19 outbreak in a population sample in the northern Spain', *Cadernos de Saúde Pública*, Vol. 36, No. 4.

Padhy, B.S. and Bhaskar, R.K. (2022) 'Values in the time of a pandemic: a study of social entrepreneurial values against the backdrop of COVID-19', *International Journal of Indian Culture and Business Management*, Vol. 26, No. 1.

Park, E., Kim, W.-H. and Kim, S.-B. (2022) 'How does COVID-19 differ from the previous crisis? A comparative study of health-related crisis research in the tourism and hospitality context', *International Journal of Hospitality Management*, Vol. 103, p.103199.

Park, I-J. and Hai, S. (2021) 'How does career future time perspective moderate the relationship between infection anxiety with the COVID-19 and service behaviour among hotel employees?', *Tourism Management Perspectives*, Vol. 39.

Pearlin, L.I., Menaghan, E.G., Lieberman, M.A. and Mullan, J.T. (1981) 'The stress process', *Journal of Health and Social Behavior*, Vol. 22, pp.337–356.

Peterson, R.R. and DiPietro, R.B. (2021) 'Exploring the impact of the COVID-19 pandemic on the perceptions and sentiments of tourism employees: evidence from a small island tourism economy in the Caribbean', *International Hospitality Review*, Vol. 35, No. 2, pp.156–170.

Primack, B.A. (2003) 'The WHO-5 wellbeing index performed the best in screening for depression in primary care', *BMJ Evidence-Based Medicine*, Vol. 8, No. 5.

Rehman, U. et al. (2020) 'Depression, anxiety and stress among Indians in times of COVID-19 lockdown', *Community Mental Health Journal*, Vol. 57, pp.42–48.

Ryff, C.D. (2018) 'Eudaimonic well-being', in Shigemasu, K., Kuwano, S., Sato, T. and Matsuzawa, T. (Eds.): *Diversity in Harmony – Insights from Psychology: Proceedings of the 31st International Congress of Psychology*, Wiley, s.l., pp.375–395.

Ryff, C.D. and Keyes, C.L.M. (1995) 'The structure of psychological well-being revisited', *Journal of Personality and Social Psychology*, Vol. 69, No. 4, pp.719–727.

Salecl, R. (2004) *On Anxiety: Thinking in Action*, Routledge, London; New York.

Schutte, S. et al. (2014) Psychosocial working conditions and psychological well-being among employees in 34 European countries', *International Archives of Occupational and Environmental Health*, Vol. 87, No. 8, pp.897–907.

Selye, H. (2018) 'The nature of stress', *Managing Stress: Principles and Strategies for Health and Well-being*, pp.1–26, Jones & Bartlett Learning, Burlington.

Seyle, H. (1991) 'History and present status of the stress concept', in Monat, A. and Lazarus, R.S. (Eds.): *Stress and Coping: An Anthology*, pp.21–35, Columbia University Press, New York.

Sigala, M. (2020) 'Tourism and COVID-19: impacts and implications for advancing and resetting industry and research', *Journal of Business Research*, Vol. 117, pp.312–321.

Singh, D.P. and Sharma, M.K. (2009) 'Unfolding the Indian cultural mosaic: a cross-cultural study of four regional cultures', *International Journal of Indian Culture and Business Management*, Vol. 2, No. 3, pp.247–267.

Singh, P. and Agrawal, R. (2022) 'Modelling and prediction of COVID-19 to measure the impact of lockdown on the organisation in India', *International Journal of Indian Culture and Business Management*, Vol. 26, No. 2, pp.259–275.

Smith, M.K. and Diekmann, A. (2017) 'Tourism and wellbeing', *Annals of Tourism Research*, Vol. 66, No. 1, pp.1–13.

Sonderskov, K.M., Dinesen, P.T., Santini, Z.I. and Ostergaard, S.D. (2020) 'The depressive state of Denmark during the COVID-19 pandemic', *Acta Neuropsychiatrica*, Vol. 32, No. 4, pp.226–228.

Sonmez, S., Apostolopoulos, Y., Lemke, M.K. and Hsieh, Y-C. (2020) 'Understanding the effects of COVID-19 on the health and safety of immigrant hospitality workers in the United States', *Tourism Management Perspectives*, Vol. 35.

Sreekumar, T., Nagendra, H. and Ilavarasu, J.V. (2021) 'Effect of yoga intervention on mindfulness perceived stress, emotion regulation and affect: a study on senior managers in an Indian multinational corporate', *International Journal of Indian Culture and Business Management*, Vol. 22, No. 1, pp.37–52.

Sun, Y-Y. et al. (2021) 'Who are vulnerable in a tourism crisis? A tourism employment vulnerability analysis for the COVID-19 management', *Journal of Hospitality and Tourism Management*, Vol. 49, pp.304–308.

Susilawati, S., Falefi, R. and Purwoko, A. (2020) 'Impact of COVID-19's pandemic on the economy of Indonesia', *Budapest International Research and Critics Institute-Journal*, Vol. 3, No. 2.

Tengilimoglu, D. et al. (2021) 'Impacts of the COVID-19 pandemic period on depression, anxiety and stress levels of the healthcare employees in Turkey', *Legal Medicine*, Vol. 48.

The Indian Express (2022) *Deadly Delta Wave Stole 2.4 Lakh Lives in India, 'Similar Episodes' Could Take Place in Near Tern: UN Report*, s.n., s.l.

Tiller, J.W.G. (2012) 'Depression and anxiety', *Medical Journal of Australia*, Vol. 199, No. 6, pp.28–31.

Topp, C.W., Ostergaard, S.D., Sondergaard, S. and Bech, P. (2015) 'The WHO-5 well-being index: a systematic review of the literature', *Psychotherapy and Psychosomatics*, Vol. 84, No. 3, pp.167–176.

Torres, F. (2020) *American Psychiatric Association* [online] https://www.psychiatry.org/patients-families/depression/what-is-depression (accessed 26 April 2021).

Vada, S., Prentice, C., Scott, N. and Hsiao, A. (2020) 'Positive psychology and tourist well-being: a systematic literature review', *Tourism Management Perspectives*, Vol. 33, No. 1, pp.1–14.

Verma, S. and Mishra, A. (2020) 'Depression, anxiety and stress and socio-demographic correlate among the general Indian public during COVID-19', *International Journal of Social Psychiatry*, Vol. 66, No. 8, pp.756–762.

WHO (2021) *WHO (COVID-19) Homepage* [online] https://covid19.who.int/region/searo/country/in (accessed 12 August 2021).

Wong, A.K.F., Kim, S., Kim, J. and Han, H. (2021) 'How the COVID-19 pandemic affected hotel employee stress: employee perceptions of occupational stressors and their consequences', *International Journal of Hospitality Management*, Vol. 93, No. 2.

Xiang, S. et al. (2021) 'The effect of a COVID-19 pandemic on service sector sustainability and growth', *Frontiers in Psychology*, Vol. 12, No. 1, pp.1–10.