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RESEARCH ARTICLE

A CROSS SECTIONAL STUDY ON PSYCHOLOGICAL PROBLEMS AMONG CALL HANDLERS
EMPLOYED IN INTERNATIONAL CALL CENTERS IN THE NATIONAL CAPITAL REGION
OF DELHI, INDIA

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ABSTRACT

Introduction: The national Capital region of Delhi is the hub of call centers in India. There are a lot of occupational health problems in call center employees. There are physical, psychological and behavioral deviations among them. This paper aims to study the psychological problems in call handlers employed in international call centers in the national capital region of Delhi, India. Objective: To measure the level of perceived stress, anxiety and depression among call handlers working in call centers in Delhi National Capital Region (NCR), India.

Materials and Methods: A cross-sectional survey was conducted among 200 call handlers aged 18-39 years in the months of June and July 2015. The study is being conducted at two reputed call centers located in the national Capital region of Delhi. Depression Anxiety Stress Scale- 42 (DASS-42) is being used to measure stress, anxiety, and depression along with a pretested questionnaire containing socio demographic profile of the participants. The data obtained at the end of the study was analyzed for the presence of stress, anxiety and depression in the call centre handlers.

Results: Of the 200 participants, 40% were married, 52 % were unmarried and the rest were either divorced or in a live in relationship. Most of them (60%) worked in night shifts and the rest worked in day shifts or both day and night shift. The prevalence of stress, anxiety, and depression among call handlers was 56.7%, 47.1%, and 52.9% respectively. In our study almost 69% of the study population had some form of sleep problems. The main reasons given for the sleep problems were night shifts (66%) and long working hours (34%).

Conclusion: There is a high prevalence of stress, anxiety and depression in the call handlers employed in international call centers in the national capital region of New Delhi, India. There is also a high prevalence of sleep problems in this group. With the boom in the call center industry in India, the health of these young people is at stake. Public health specialists must also focus on this group of people and their problems must be properly addressed.

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INTRODUCTION

There has been a boom in the call centre industry in India. The national Capital region of Delhi is the hub of call centers in India. This mainly includes the cities of New Delhi, Gurgaon and Noida. The work environment of a person plays a crucial role in his mental health. The call center industry comes under the business process outsourcing industry (BPOs). A call center is the voice based part of a BPO organization.

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There has been a boom in this industry in India mainly because of easy availability of cheap and skilled workforce (http://www.mckinsey.com/locations/india/mckinseyonindia/pdf/nasscom_mckinsey_report_2005.pdf). [Last accessed 2015 June 2015: http://www.popcouncil.org/pdfs/wp/India_HPIF/010.pdf]. [Last accessed 2015 June 25]). People are lured into working in call centers mainly because of the easy job availability, lucrative salaries and lavish lifestyles (www.trikal.org/ictbm11/pdf/OB/D1241done.Pdf). [Last accessed 2015 June 22]). Working in the call centers usually involves working in long shifts including night shifts. The main clients of international call centers involve countries such as United States of America, United Kingdom and Canada. Due to

the difference in the time zones, people in these call centers usually have to work in night shifts. These shifts have also been called as graveyard shifts by some researchers (Taylor and Bain, 1999). There is a lot of stress involved in these jobs due to night shifts, long hours of continuous work and high work targets. Working in night shifts creates an identity crisis in this people – Indians in the day and westerners in the night. Various studies have pointed out that his sort of work environment leads to increase the stress and anxiety levels in call center employees (Suri *et al.*, 2007; Sudhashree *et al.*, 2005).

There are only a few studies focusing on the health needs of call center employees. In this modern era of globalization and industrial growth, public health specialists need to focus on the health problems of the call center employees. The objective of our study was to measure the level of perceived stress, anxiety and depression among call handlers working in call centers in Delhi National Capital Region (NCR), India.

MATERIALS AND METHODS

A cross sectional study was conducted in call handlers working in international call centers in the city of Gurgaon, India.

Study period – The study was done in the months of June and July 2015.

Study subjects – People in the age group of 18-39 years working in the two selected call centers located in the city of Gurgaon, India.

Inclusion criteria

- People in the age group 18-39 years
- People working in these call centers for at least 6 months

Exclusion criteria

- People who refused to give informed consent
- People suffering from some chronic disease

Sample size – This study was done on a total sample size of 200 people. 100 people were selected from each of the two call centers.

Sampling technique

A list of major international call centers was made and two call centers were selected randomly from this list for the purpose of our study. 100 people each were selected from these two selected call centers. A list of all the people working in the age group of 18-39 years was obtained and the list was numbered. Then the first person was chosen using lottery method. Systematic random sampling was then done to obtain the further sample. Sampling interval was calculated depending on the total number of people and the required sample size.

Study tool – The study tool used for the purpose of this study was DASS – 42 (Depression, Anxiety and stress Scale) (Lovibond, 1995). The DASS-42 is a set of three self-report scales designed to measure the negative emotional states of depression, anxiety, and stress. The respondents are to rate the extent to which they have experienced the given state over the

past week, using 4-point severity scale. Sleep quality was assessed using an 8-item Athens Insomnia Scale. In this, each item was scored on a 4-point scale and a higher score indicate more severe sleep problems. The total score ranged 0-2 and was graded as follows: <4 = no sleep problem, or 5 = some suspicion of insomnia, and ≥ 6 suspected insomnia. A pre tested semi structured schedule was also administered to the study participants to get information on their socio demographic profile and other related factors.

Data collection – The data collection was done by the investigator himself. Verbal informed consent was obtained from all the study participants. If the chosen person refused to give consent for the study, then the next person in the list was chosen for the study. A total of 20 persons were interviewed in one day. The required sample size of 200 was completed in 10 days. **Data analysis** – The data obtained was entered into Microsoft Excel Software and was analyzed using appropriate statistical tests.

RESULTS

In our study, 72% of the participants were males and 28 % of the participants were females. Most of the study participants were in the age group of 18- 23 years followed by 23 – 28 years. Table 1 shows the age distribution of the study participants.

Table 1. Age distribution of study participants

Age group	Number of participants n(%)
18- >23	70 (35)
23- >28	60 (30)
28- >33	36 (18)
33-39	34 (17)

Most of the people working in these call centers were graduate followed by senior secondary school pass outs. The income ranged from a minimum of Rs. 8000 per month to Rs. 40000 per month. Table 2 shows the socio demographic profile of the study participants.

Table 2. Socio demographic profile of study participants

Parameter	Number of participants n(%)
Education	
Senior secondary	74 (37)
Graduate	86 (43)
Post Graduate	40 (20)
Income (in INR)	
8000-15999	74 (37)
16000-23999	56 (28)
24000-31999	40 (20)
>32000	30 (15)

Of the 200 participants, 40% were married, 52 % were unmarried and the rest were either divorced or in a live in relationship. Most of them (60%) worked in night shifts and the rest worked in day shifts or both day and night shift. 65% of the participants worked for 9-12 hours per day and 35% worked for 6-9 hours daily. The prevalence of stress, anxiety, and depression among call handlers was 56.7%, 47.1%, and

52.9% respectively. Figure 1 shows the prevalence of stress, anxiety and depression in the call handlers.

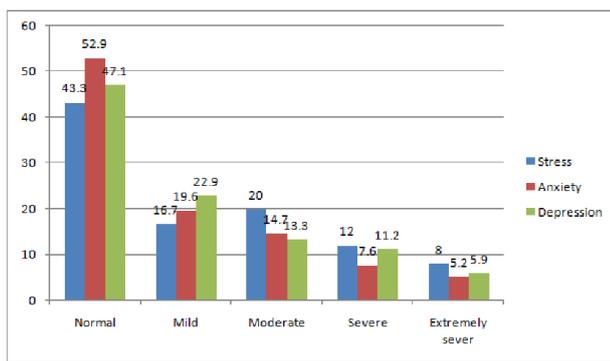


Figure 1. Prevalence of stress, anxiety and depression in the study participants

Most of the study participants had mild to moderate levels of stress, anxiety and depression. Mild stress was present in 16.7% of the participants, moderate stress in 20% and the remaining had severe or extremely severe form of stress. 47.1 % of the study participants had problem of anxiety. 19.6% had mild anxiety whereas 14.7% had moderate levels of anxiety. Severe anxiety was present in 7.6% and extremely severe in 5.2%. 22.9 % had mild depression followed by 13.3 % who had moderate depression. 11.2% had severe depression and 5.9 % had extremely severe depression. In our study, 32% of the participants had suspected insomnia and 37% had some suspicion of insomnia. Only 31% of the study participants had no sleep problem. Table 3 shows the prevalence of sleep problems in the study population.

Table 3. Sleep disturbance in the study population

Category	Number of participants n(%)
No sleep problem	62 (31)
Some suspicion of insomnia	74 (37)
Suspected insomnia	64 (32)

In our study almost 69% of the study population had some form of sleep problems. The main reasons given for the sleep problems were night shifts (66%) and long working hours (34%). Majority (70%) of the population wanted to change their jobs due to the high levels of stress, anxiety and depression. Only 30 % of the study participants were satisfied with their jobs.

DISCUSSION

Our study finds that there is a high level of stress, anxiety and depression in the call handlers working in the international call centers located in the national capital region of New Delhi, India. The main causes of this are the long working hours, night shifts and the immense pressure to achieve targets. Also, these call handlers are often abused by their international clients which adds to their mental agony. In our study the prevalence of stress, anxiety, and depression among call handlers was 56.7%, 47.1%, and 52.9% respectively. In a study done by *Jeyapal et al. (2015)* in NCR region, The prevalence of stress, anxiety, and depression among call

handlers employed in international call centers in Delhi NCR was 46.7%, 57.1%, and 62.9% respectively. These findings are similar to our findings. This study was also done in international call centers located in NCR region so the findings may be similar. A case control study in New Delhi found that BPO employees were more stressed (58.3% vs. 19.3%); more depressed (62.9% vs. 4.6%); and more anxious (33.9% vs. 1.4%) as compared with non BPO workers (*Suri et al., 2007*). These findings are also similar to the findings of our study. According to a study in Mumbai, 70.4% females and 55.6% males were found to be suffering from headache almost every day (www.trikal.org/ictbm11/pdf/OB/D1241done.Pdf). [Last accessed 2015 June 22]).

Higher levels of stress and anxiety were found in the call handlers in other metropolitan cities of India (*Jena, 2011; Bhuyar et al., 2008*). In our study, 32% of the participants had suspected insomnia and 37% had some suspicion of insomnia. In a study done in Bangalore, India, it was observed that sleep problems were present in 83% of the people working in call centers. ⁶ This figure is a bit higher than our figure of 69%. These figures are higher than the IT industry average of 39.5%. In a study conducted in Delhi NCR 51.4% BPO employees were found to be sleepier as compared with non BPO workers (20.5%) (*Suri et al., 2007*).

Another study reported 42% employees resorted to adopt 'new lifestyle patterns' like late night partying, smoking, boozing and drug addiction (*Dube et al., 2012*). A study from Bangalore found that sleepiness was significantly higher among night shift workers as compared with day shift workers in BPOs. It also found that night shift workers have an increased risk of developing cardiovascular disease as compared with day shift workers (*Kunikullaya et al., 2010*). We can say that there is a very high level of anxiety, stress and depression in the call handlers working in the national capital region of Delhi, India. There is also a high prevalence of sleep disorders in this group. Urgent steps are required for improving the mental health of people working in the call centers. Appropriate steps must be taken for this. Regular counseling of the employees must be done and de stressing activities should be encouraged. Various departments such as health, labor, food and agriculture, education must work together for improving the health of the call center employees.

Conclusion

Our study shows a high prevalence of stress, anxiety and depression in the call handlers employed in international call centers in the national capital region of New Delhi, India. There is also a high prevalence of sleep problems in this group. With the boom in the call center industry in India, the health of these young people is at stake. Proper steps must be taken by the management of these call centers to look into this matter. Public health specialists must also focus on this group of people and their problems must be properly addressed. The government should also make some policies for looking after the health of people working in call centers. This is very important as proper regulations are not in place to look after the physical and mental health of the call handlers employed in international call centers in India. De stressing activities must

be started in the call centers to reduce the prevalence of stress, anxiety and depression in their employees. Arrangements must be made for counseling of the employees. Periodic health checkups of the employees are also essential. There is an urgent need of further studies to be done in this area to find out in details about this upcoming problem. Public health specialists can play a crucial role in this field.

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