

Mental and Physical health related problems of Call centre workers.

Dr. Vaibhavkumar Ramanuj

Assistant Professor, Community Medicine Department, Smt. NHL Municipal Medical College, Ahmedabad

Abstract:

Background: The employees of a call centre in BPO may have certain occupational hazards which are unique for the industry. These may be mental, physical and psychosocial.

Material & Method: A sample 100 call centre workers of both sexes and from day and night shifts were interviewed to find out about various health problems.

Results: Mental stress was one of the main self reported health problem, reported by 44% and 54% of the respondents of day and night shift respectively. Sleep disturbance and disturbance in biological rhythm was mainly reported by the night shift workers.

Keywords: Call centre, Health hazards, Day shift, Night shift

Introduction

BPOs (Business Process Outsourcing) are typically categorized into back office outsourcing or non-voice sector and front office outsourcing or voice based sector. The non-voice process includes data encoding, database development, market research, handling of credit billing problems, loan processing, account management etc. The voice sector is often interchangeably referred to as the 'Call Centre industry', 'contact centre industry' or 'customer service industry' because the service entails interactive communication with the client or customers. The Call Centers are an important part of the BPO and Call Centers constitute for more than one-third of the total employment and revenues in the BPO segment. The Call Centre employees handle two types of calls - outbound and inbound calls. The inbound calls are originating from the company's client and customers, who in phone or email voice their queries, complaints or other related customer concerns. The outbound Call Centre on the other hand are those originating from the Call Centre, which has been contracted by the company to sell or promote certain products and services. There are also blended call handling, meaning taking inbound calls while also making outbound calls¹.

BPO industry has been established in India with the globalization and liberalization. The growth of Information Communication and Technology (ICT) sector worldwide and the availability of large number of English speaking and low cost labour have resulted in India emerging as one of the desired destinations of BPOs². A large number of companies have started establishing call centers providing employment opportunities to millions of people as Transnational call centers are one of the most sought after workplace for young graduates and undergraduates, due to the good work environment, decent emoluments, financial incentives, free transport and refreshments, and above all no other sector allows entry of employees with minimum education at such attractive pay packages³.

The call centre industry has emerged as one of the largest private sector employer in the country, generating employment to over 4.5 million people (direct and indirect), with 50 per cent of employees below 25 years. The industry has grown 17% in last year providing more job opportunities⁴. With the establishment of such centres a new variety of occupational hazards have also come into existence. The odd working hours against the biological clock makes employees suffer from a number of ailments. The cumulative effect of odd working hours and stressful working environment leads to voice problem (dry, itchy throat, hoarseness, cleaning of throat, cracking of voice, cough, cold, etc.), eye strain (itchiness, smarting, redness, tearing, dryness and pain due to lighting situations and uninterrupted use of computers for long hours), hearing problem (ear pain, ringing in ear), pain in neck, shoulder, back, wrist and mental and psychological stress¹. In a study on the Call Centre employees by Sudhashree V. P.; Rohit K. and Shrinivas K.⁵, it was found out that the transnational Call Centre workers suffer from various health problems due to the demanding work environment with long working hours, permanent night shifts, high work targets and social isolation. The employment also leads to Burnout Stress Syndrome (BOSS) characterized by chronic fatigue, insomnia and complete alteration of the 24-hour biological rhythm,

which affects sleep and the proper functioning of the heart⁵. The working hours at night may cause sleep disturbances and disturbances in biological rhythm. The sedentary and unhealthy lifestyle can lead to physical health problems⁴. The job pressure may also affect one's mental and psychosocial health.

Objective

To find out various mental, physical and psychosocial health problems amongst the call centre employees.

Material and Methods

The study was carried out at a BPO call centre located at Ahmedabad. 50 call centre employees who gave consent for the study were selected randomly from each of the day and night shift. Total study population was 100.

A questionnaire containing questions regarding the socio-demographic information and health related problems, if any, was filled.

No scale for mental stress has been used. All conditions recorded were self reported or perceived.

Data entry and statistical analysis. Data was entered on Microsoft Excel spreadsheet and analyzed using EpiInfo 7. Chi-Square test was used to explore associations between various parameters in day and night shift.

Results:

The average age of the respondents was 24.51 years (SD = 3.58). It was seen that, half of the sample population was in the age group of 20 – 25 years. Only 7% of the respondents were above 30 years of age. The demographic table revealed that out of total 100 workers, 23 were females and 77 males. [Table 1]

Majority, i.e. 70% of the respondents were graduates or diploma holder, 25% had education of post-graduate level, while only 5% had completed only school education or had left the under-graduation study. [Table 1]

Table 1: Socio-demographic profile of Call Centre workers

	Day shift		Night shift	
	M	F	M	F
Age (Years)				
≤ 20	4 (12.9)	2 (33.3)	9 (19.6)	0 (0)
21 – 25	12 (38.7)	14 (53.8)	22 (47.8)	2 (50)
26 – 30	12 (38.7)	3 (38.7)	11 (23.9)	2 (50)
> 30	3 (9.7)	0 (0)	4 (8.7)	0 (0)
Education level				
Below undergraduate	1 (3.2)	2 (10.5)	2 (4.3)	0 (0)
Undergraduate / diploma	26 (83.9)	12 (63.2)	30 (65.2)	2 (50)
Postgraduate	4 (12.9)	5 (26.3)	14 (30.4)	2 (50)
Income (Rupees)				
< 20000	10 (32.3)	12 (63.2)	22 (47.8)	0 (0)
20001 – 25000	12 (38.7)	7 (36.8)	8 (17.4)	4 (100)
25001 – 30000	6 (19.4)	0 (0)	10 (21.7)	0 (0)
> 30000	3 (9.7)	0 (0)	6 (12.0)	0 (0)
Work experience (In Years)				
< 1	7 (22.6)	4 (21.1)	12 (26.1)	0 (0)
1 -2	4 (12.9)	10 (52.6)	15 (32.6)	1 (25.0)
2 – 5	8 (25.8)	5 (26.3)	12 (26.1)	3 (75.0)
> 5	12 (38.7)	0 (0)	7 (15.2)	0 (0)
Marital status				
Married	8 (25.8)	1 (5.3)	9 (19.6)	2 (50)
Unmarried	23 (74.2)	18 (94.7)	37 (80.4)	2 (50)
Total	31 (62)	19 (38)	46 (92)	4 (8)

In respect to the income of the call centre employees, 44% of the respondents had income below 20,000 Rupees, while only 9% had income above 30,000 Rupees. 27% had income between 20,000 to 25,000 rupees and 16% had the income between 25000 to 30,000 rupees. It was seen that 30% had experience of about 1 to 2 years followed by 28% having experience of 2 to 5 years. 23% of the respondents had joined the call centre within last year of the study. Only 19% had experience of more than 5 years. [Table 1]

Out of total 100 respondents, 20% were married. [Table 1]

All the females and 27 (35%) males did not had any addiction while 26 males had habit of tobacco chewing followed by 18 having habit of cigarette smoking. 6 males had addiction of tobacco chewing as well as smoking. [Table 1]

Self reported health problems.

The main self reported health problems were mental stress and sleep disturbance.

It was seen that mental stress was reported by 44% and 54% of the respondents of day and night shift respectively. The difference was not statistically significant. [Table 2]

Sleep disturbance and disturbance in biological rhythm also much higher in night shift employees as compared to their counterparts. The difference in both the shifts was found extremely significant statistically. [Table 2]

Digestive system problems like indigestion and constipation were reported by 64% of night shift employees as compared to 26% from day shift employees, difference being extremely significant statistically. [Table 2]

Out of 100, 28% of the respondents in each of the both shifts reported Backache. Eye problems like dry eye, pain in the eyes were reported by 30% and 40% of the employees in day and night shift respectively. Headache was reported by 28% and 38% of day and night shift respondents respectively. [Table 2]

Discussion

Respondents from both the shifts revealed that they were suffering from various healths related problems as shown in Figure 1 and Figure 2.

Table 2: Various self reported health problems

Health related problems	Day shift (n = 50)	Night shift (n = 50)	Statistical Association
	No. (%)	No. (%)	
Stress	22 (44)	27 (54)	$\chi^2 : 1.00, d.f. = 1, P = 0.317$ Not significant
Sleep disturbance	9 (18)	28 (56)	$\chi^2 : 15.48, d.f. = 1, P = 0.0001$ Extremely significant
Disturbed biological rhythm	3 (6)	25 (50)	$\chi^2 : 24.00, d.f. = 1, P = 0.000002$ Extremely significant
Digestive system problems	13 (26)	32 (64)	$\chi^2 : 14.58, d.f. = 1, P = 0.0001,$ Extremely significant
Eye problems	15 (30)	20 (40)	$\chi^2 : 1.0989, d.f. = 1, P = 0.294$ Not significant
Headache	14 (28)	19 (38)	$\chi^2 : 1.13, d.f. = 1, P = 0.287$ Not significant
Backache	14 (28)	14 (28)	-----

Figure 1: Age Group wise health related problems in Day Shift employees

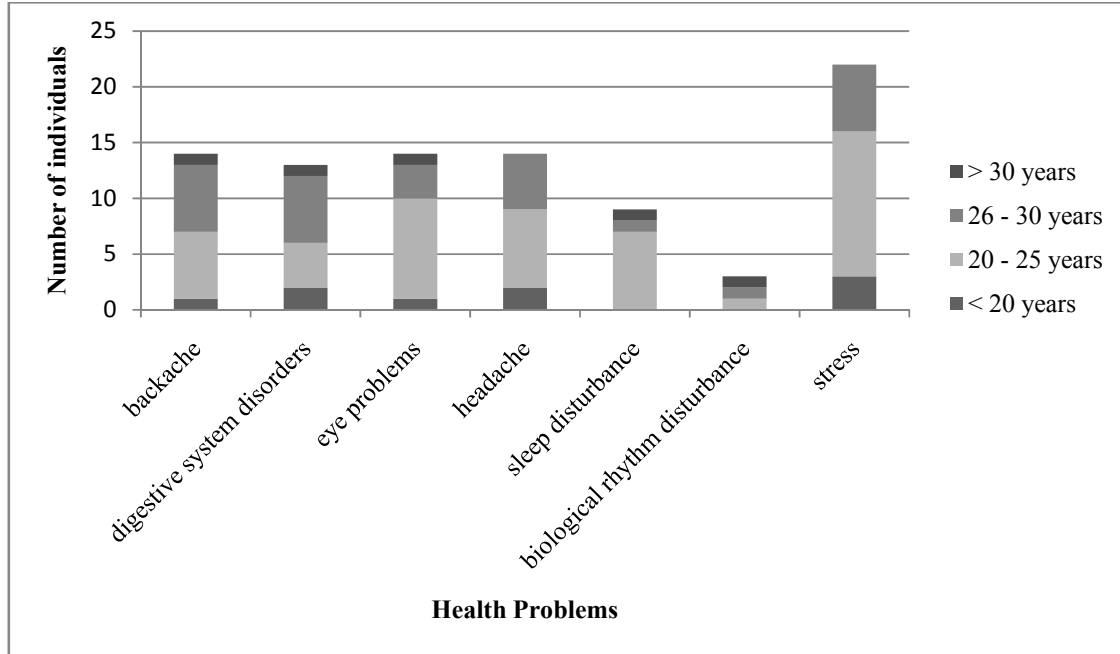
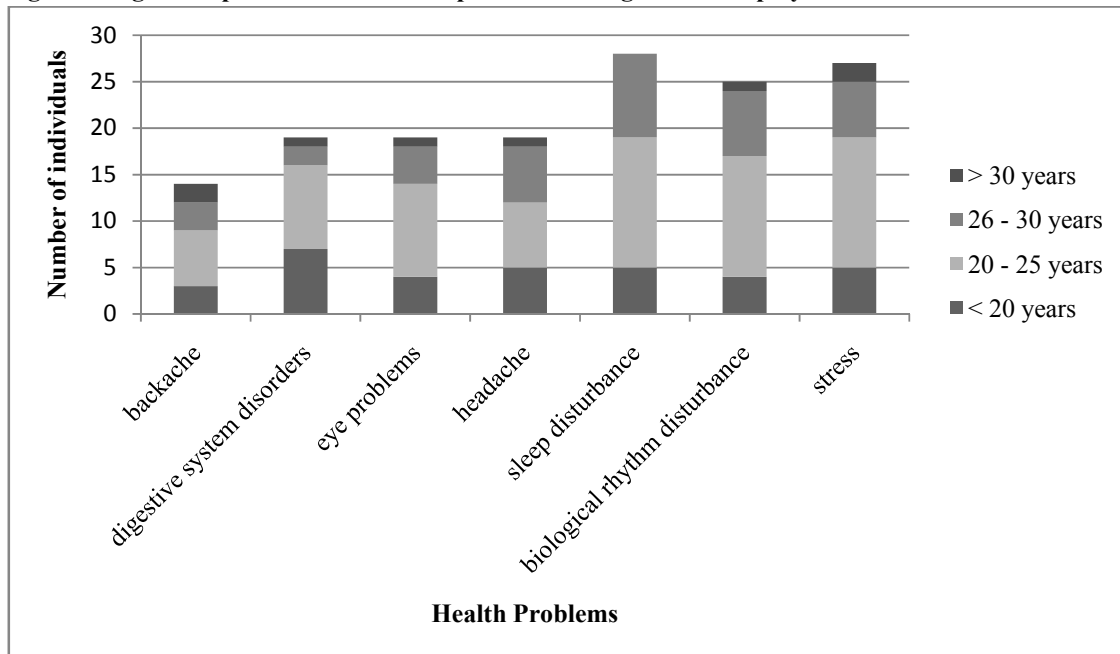


Figure 2: Age Group wise health related problems in Night Shift employees



Mental stress was reported by about 49 respondents out of 100. Self reported mental stress was found in

33% of the respondents by Bhuyar et al⁶. Various factors leading to mental stress were work timing,

workload, repetitive nature of work, insufficient breaks during work and insufficient holidays.

About 18% of day shift workers and 56% of night shift workers reported sleep disturbance. It was reported by 36% of the workers in the study by Sudhashree V. P.; Rohit K. and Shrinivas K.⁵, by 29% of the workers in the study by Bhuyar et al⁶, and 5% by Singh and Pandey⁷. Similarly, Disturbed biological rhythm was reported by 50% of the night shift workers which was 21% in the study by Bhuyar et al⁶ and 35% in the study by Sugumar D. et al⁸. Both sleep disturbance and alteration in biological rhythm are symptoms of Burnout Stress Syndrome. Some call centres are looking at devising innovative mechanisms like flexible shifts with sleeping arrangements in the office premises. This can be helpful in reducing the sleep disturbance.

About 64% of night shift and 26% of day shift workers reported digestive problems. It was found to be 50% by Singh and Pandey⁷ and 58% by Sugumar D. et al⁸. Working long hours and odd hours without any sleep, and eating food supplied by external caterers every day, has led to employees suffering from digestive disorders. Especially for the large number of girls working in the industry, the problem is even more severe. This may be reduced by supplying hygienic food as well as nutritious food; and stipulating strict conditions to maintain the quality of the food being served.

Eye problems like dry eyes, pain in the eyes and lacrimation was reported by total 35% of the respondents. This was 38% by Ramesh P. B.², around 30 -40 % by Sudhashree V. P.; Rohit K. and Shrinivas K.⁵ and 50% by Singh and Pandey⁷. Globally call centre employees are considered a high risk group for eye related problems. The quality of monitors along with sitting continually without adequate breaks might be the reason for this. Some companies have overcome this issue by use of anti-glare monitors. Besides, measures such as resting the eyes every few minutes and lubricating eye drops may prevent dryness of eyes.

Backache was reported by 28% of the respondents from both the shifts, which was reported by 36% in study by Sudhashree V. P.; Rohit K. and Shrinivas K.⁵, 58.6% in study by Bhuyar et al⁶, 43% by Singh and Pandey⁷ and 24.5% by Sugumar D. et al⁸. Posture of the person and long sitting hours for work may play a role in causation of the backache. This can be

minimized by adapting proper posture and taking breaks for leg movements during the work. One of the reasons for backache and other musculoskeletal disorders may be psychosocial factors like job strain, social support at work, and job dissatisfaction as described by Menzel. He suggested measures for reducing the incidence of musculoskeletal disorders and addressing psychosocial risk factors to prevent delayed recovery⁹.

Conclusion:

It is observed that the employees of call centre feel occupational burn out. The level of mental stress was high in both day and night shift workers. The sedentary life style and the work pattern affect both physical as well as mental health. Sleep disturbance, disturbance of biological rhythm and digestive system disorders were seen more in night shift workers as compared to day shift workers. The study revealed that 50% of total respondents had addiction of tobacco chewing and / or cigarette smoking.

Recommendations

Health risk assessments both pre-employment and periodic for employees should be conducted and Length and frequency of breaks during the work should be adequate. Help of a counselor may be taken by employees, particularly those working in night shift, to strike a balance between physical and mental rhythm to synchronize body clock. Health education in respect to care of eyes, posture and stress relieving methods should be given to all employees.

Limitations

The study was carried out with only a small sample size and the findings cannot be generalized to all call centre employees but, this study gives an insight about various health related problems of such workers.

Sources of support: nil

Conflict of interest: nil

Acknowledgement

We are grateful to all the participants of the study for their valuable time and co-operation and to the management for their support in carrying out this study.

References

1. Ofreneo E. R., Ng C. and Pasumbal M. L. "Voice for the Voice Workers: Addressing the IR Concerns in the Call Center/BPO Industry of Asia". *Indian Journal of Industrial Relations*, 2007; 42 (4):534-557.
2. Ramesh P. B. "Cyber Coolies' in BPO: Insecurities and Vulnerabilities of Non-Standard Work". *Economic and Political Weekly*, 2004; 39 (5): 492-497.
3. Clark W. A., and Sekher T. V. "Can Career-Minded Young Women Reverse Gender Discrimination? A View from Bangalore's High-Tech Sector." *Gender, Technology and Development*, 2007; 11(3): 285-319.
4. NASSCOM 2012. Domestic IT-BPO. Available at:<http://www.nasscom.in/domestic-itbpo>. (Accessed on 18.07.2013).
5. Sudhashree V. P., Rohit K., Shrinivas K. "Issues and Concerns of Health among Call Centre Employees". *Indian Journal of Occupational and Environmental Medicine*, 2005; 9(3) 129:131.
6. Bhuyar P, Banerjee A, Pandve H, Padmnabhan P, Patil A, Duggirala S, Rajan S, Chaudhury S. Mental, physical and social health problems of call centre workers. *Ind Psychiatry J* 2008;17:21-5
7. Singh P., and Pandey A. "Women in Call Centres". *Economic and Political Weekly*, 2005; 40 (7): 684-688.
8. Sugumar D., Muthu Kumaran C.K. , Jeya Raj P., Joseph Xavier S. "Addressing health related challenges faced by the business process outsourcing (BPO) employees by stress" *African Journal of Business Management*, 2013; 7(12): 906-914
9. Menzel N. N. "Psychological factors in musculoskeletal disorders" *Critical Care Nursing Clin. of North America*. 2007; 19(2): 145-53.