

An Insight into Family and Social Relationships of Day Workers and Shift Workers in Visakhapatnam

Fariba Farhoud¹, Shruti Marwaha^{2*}

ABSTRACT

The present study was carried out to assess and compare the health problems experienced by day and shift workers in Visakhapatnam. The research was conducted on a sample of 70 software engineers, in the age group of 22-33 years in Bhubaneswar, Orissa. Health is a state of complete physical, mental and social well being and not merely an absence of disease. It provides the ability to lead a socially and economically productive life. So a healthy individual is free from disease; in a state of normal functioning. As shift work is a phenomenon of 24 hours continuous operations, the effect of shift work on health was assessed in terms of nutritional anthropometry and life style indicators. Majority of shift workers were reported to become workaholic. Majority of shift workers reported impairment in social leisure activities, personal leisure, activities and ability to form and maintain close relationship with family members compared today workers.

Keywords: *Social and Family Relationship, Day workers, Shift workers, Visakhapatnam*

The human body is meant to be active during the day time hours and in night, it is meant to sleep, which allows it to recover and replace energy. Working at night and sleeping during the day is opposite to the body's biological clock. This makes sleeping difficult; it may also mean that the body cannot recover as quickly from physical and mental exertion/ demands. Many other functions of the body including temperature, digestion, heart rate and blood pressure fluctuate throughout the day. Circadian rhythms have been found to be associated with changes in mental and physical performances. Circadian rhythms may partly explain why job performance can vary over a 24-hr period, with a low point occurring very late at night or very early in the morning. Shift work has been shown to have deleterious effects on the health of the employees. These effects may be substantial, such as sleep disruption, decreased alertness resulting in poor performance, long-term effects may include chronic fatigue, sleep disorders and psychological and physical illness. Around twenty percent of individuals in the industrialized countries have irregular work hours, a situation that causes changes in their feeding cycle. There is only limited knowledge on the metabolic and endocrine

¹ Research Scholar, Govt. Home Science College, Panjab University, Chandigarh, India

² Research Scholar, Department of Anthropology, Panjab University, Chandigarh, India

*Responding Author

An Insight Into family And Social Relationships of Day Workers and Shift Workers in Visakhapatnam

responses to these changes. The endocrine milieu may therefore be less suitable for food intake during the night and the nocturnal hormonal pattern might be involved in the high incidence of obesity and cardiovascular diseases in shift workers. (Holmback et al, 2003). According to International Labour Office, shift work is defined as; “a method of work organisation under which groups or crews of workers succeed each other at the same work stations to perform the same operations, each crew working a certain schedule or shift”. The working time arrangement is a key issue in work organization as it is the basic condition linking human capacities with production means. This issue has acquired a growing importance in recent decades in relation to the development of new technologies and the extension of basic services to general populations, requiring continuous human assistance and control over the work processes during the 24 hour day. This issue is also associated with the increasing economic competition among companies and countries, due to the progressive globalization of the labour market and productive strategies, which entail an increasingly intensive and extensive exploitation of productive systems. Due to non standard work schedule the workers don't get enough time to spend with spouse. This will lead to child care related problems, higher divorce rate. Below are the few studies which describe the family and social life of shift workers. A research was carried out by Staines et al. (1984) on 1090 workers working in nonstandard pattern of days. The study was carried out by American Psychological Association. Results supported the significant association between nonstandard pattern work (shift work) with less time by family roles, higher levels of conflict in family life and lower levels of family adjustments. White et al. (1990) studied 1668 married women and men to assess the notion that shift work damages the marital quality. Results suggested that shift work was found to increase the probability of divorce from 7 per cent to 11 per cent over the three year period. Smith and Folkard. (1993) surveyed 74 female partners of United Kingdom nuclear power shift workers to know their spouse's shift work affected them personally. Results showed 53.3% rated themselves to be fairly unhappy or very unhappy about husband's shift work, which was significant. A study conducted in the University of Maryland by Presser.(2000) on 3474 married couples to examine the extent to which working in the evening, night or rotating schedules affects the likelihood of marriages ending in separation or divorce within 5 years. Results indicated that, among men those who were working fixed night shifts, the chances of separation or divorce was 6 times more than their day counterparts. In case of women the chances are 3 times more. Preston et al. (2000) made an effort to examine how rotating shift schedule shaped house hold strategies with regard to child care and unpaid domestic work. Study sample included 90 male newsprint mill-workers and their spouses in Canada. The findings revealed that adjusting to shifts fell mainly on the spouses of the mill workers who felt constrained regarding childcare by the demanding regimen of their partner's shift. Grosswald (2003) conducted study on a representative sample of 2,429 United States workforces to study the relationship between shift work and work to family spillover. Results revealed that among evening, night, rotating and split shifts the rotating shift work showed a significant strong, positive relationship to high negative work to family spillover. A study was designed by Demerouti et al. (2004) to test the impact of rotation and timing of shifts on work-home conflict, job attitudes, health and absenteeism

An Insight Into family And Social Relationships of Day Workers and Shift Workers in Visakhapatnam

among military police, in The Netherlands. A total of 3122 employees participated in the study. Results identified that job rotation was mostly related to unfavorable job attitudes, where as timing was clearly related to increase work-home conflict. In summary shift workers find difficulty in child care, less time for children. They even have not enough time to spend with spouse and have higher divorce rates compared to day workers. Changes in lifestyle, particularly dietary habits (such as eating fewer meals and more snacks), have been suggested as explanations for finding links of shift work with BMI. Other recent evidence suggests that shift workers take smaller amount of energy and nutrients than day workers. Evidences also suggested that changed eating habits and other life style changes (including reduced exercise), among shift workers may lead to increase in BMI, which in turn contribute to higher level of hypertension and cardiovascular risk associated with shift work. Shift workers also reported more interference to their family lives, especially in terms of time available to spend with their wife's and children. Studies found significant association between the extent to which shift workers perceived that their work schedule interfered with their ability to fulfill roles as spouses or parents and self-reported psychological and psychosomatic disturbances. Currently, about 25% of the labor forces in industrialized countries are involved in some form of shift-work. While there are many advantages in having greater availability of around-the-clock services, such as increase in productivity and profit, there are disadvantages associated with shift-work. Night-shifts in particular, disturb the sleep/wake patterns of individuals as they are often required to sleep during the daylight hours. Past research has suggested that daytime sleep is typically 2–4 hours shorter in duration than that of night-time sleeps. Furthermore, field studies have shown that many shift workers report higher levels of sleepiness during night-shifts as compared to day-shifts. (Jay et al, 2006). Unfortunately, shift work is the part and parcel of today's fast life in the working atmosphere- is it calls centre, Business Process Outsourcing (BPOs) or even soft ware companies, which needs people working nights to provide technical expertise for their clientele abroad. Over the past century there has been a large decline in individual physical activity. Computer-related occupations have become more common and it involves high levels of sitting time and lower demand for physical activity. These types of jobs may play a role in the growing problem of overweight and obesity.

METHODOLOGY

The study was carried out at various software industries in Visakhapatnam. The purpose of the present investigation was to assess the health status of shift workers in comparison to permanent day workers. Totally, there were 14 statements under this category which were related to social and family activities viz., personal life, social relationship, child care practices and friendship/family relationship for which subjects had to answer in term of 'yes' or 'no'. It was used to assess the social and family life of the shift workers.

Participants

A total of 70 software engineers, in the age group of 22-33 years were selected for the study, with 36 members in control group (permanent day workers) and 34 members in study group

**An Insight Into family And Social Relationships of Day Workers and Shift Workers in
Visakhapatnam**

(shift workers). The study was conducted in five software industries in Bhubaneswar, Orissa. All the subjects were male workers as there were no female workers working in shifts due to safety reasons. All the shift workers followed an 8 hour irregular rotating work schedule namely morning, evening and night shift. Permanent day workers were the workers of typical day schedule who work for 8 hours. The first step included sample selection and then, rapport was formed with the subjects.

Stages Of Study

- Stage-1 Sample was selected through purposive sampling technique.
- Stage-2 Rapport was built with the subjects.
- Stage-3 The data were collected using the schedules and interviews.
- Stage-4 The data were analyzed to make meaningful inferences and comparisons.

RESULT AND DISCUSSION

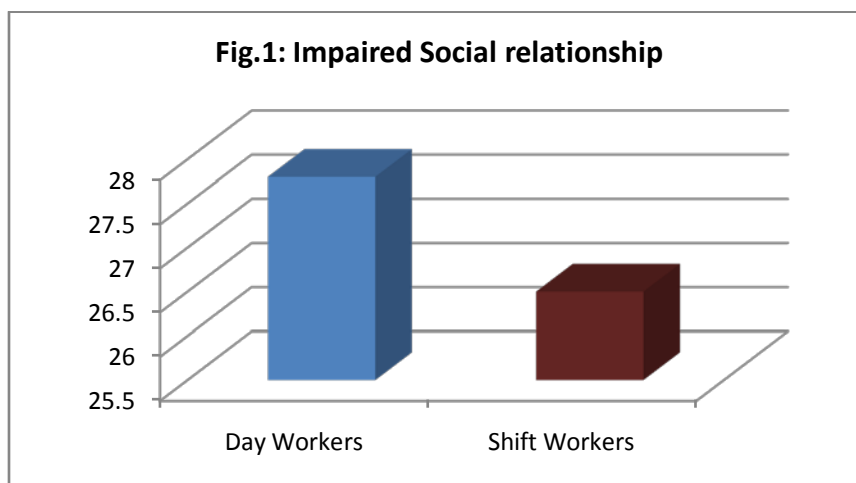
Once the data was obtained, it was coded, tabulated and analyzed, keeping in mind the objectives of the study. Appropriate statistical tools were used to draw meaningful inferences.

Table 1. Social and Family life of the subjects

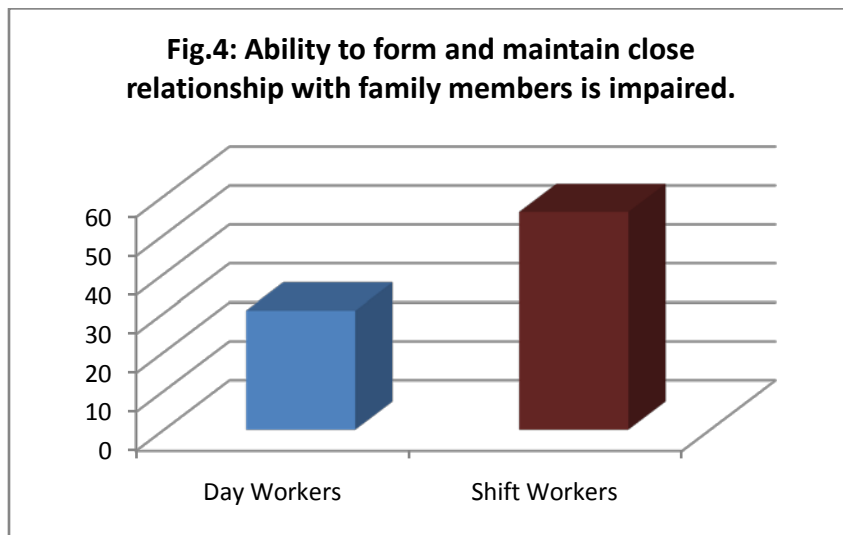
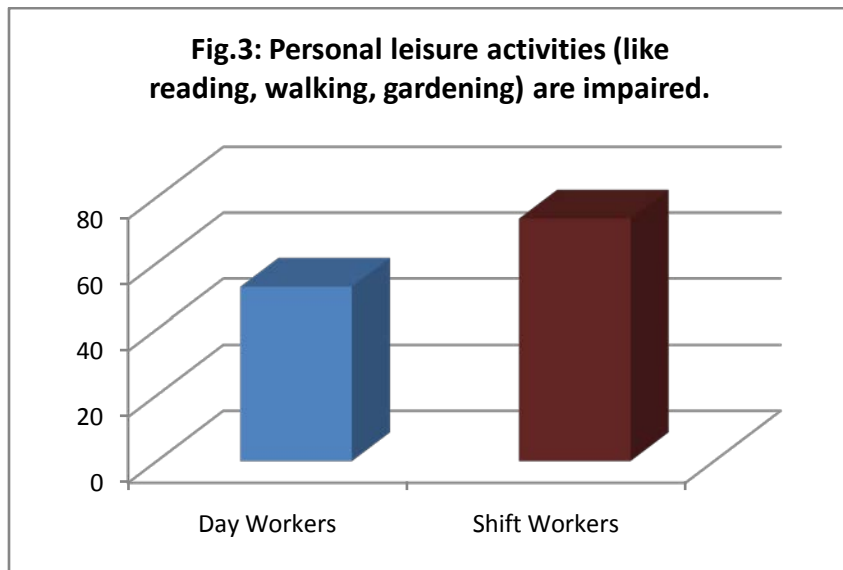
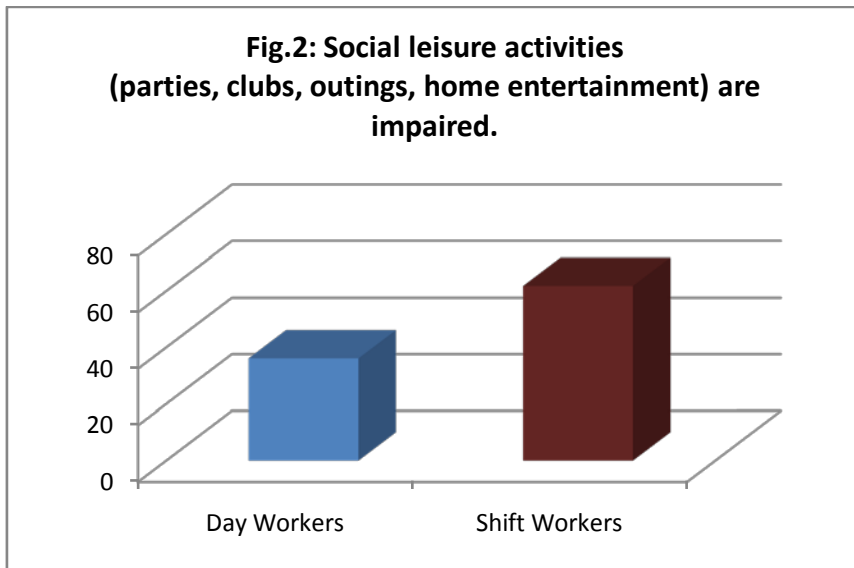
Statements	Categories	Day Workers (n=36)		Shift Workers (n=34)	
		Frequency	Percentage	Frequency	Percentage
Social relationship is impaired.	Yes	10	27.8	9	26.5
	No	26	72.2	25	73.5
Social leisure activities (parties, clubs, outings, home entertainment) are impaired.	Yes	13	36.1	21	61.8
	No	23	63.9	13	38.2
Personal leisure activities (like reading, walking, gardening) are impaired.	Yes	19	52.8	25	73.5
	No	17	47.2	9	26.5
Ability to form and maintain close relationship with family members is impaired.	Yes	11	30.6	19	55.9
	No	25	69.4	15	44.1
Withdraw from social gathering.	Yes	8	22.2	13	38.2
	No	28	77.8	21	61.8

An Insight Into family And Social Relationships of Day Workers and Shift Workers in Visakhapatnam

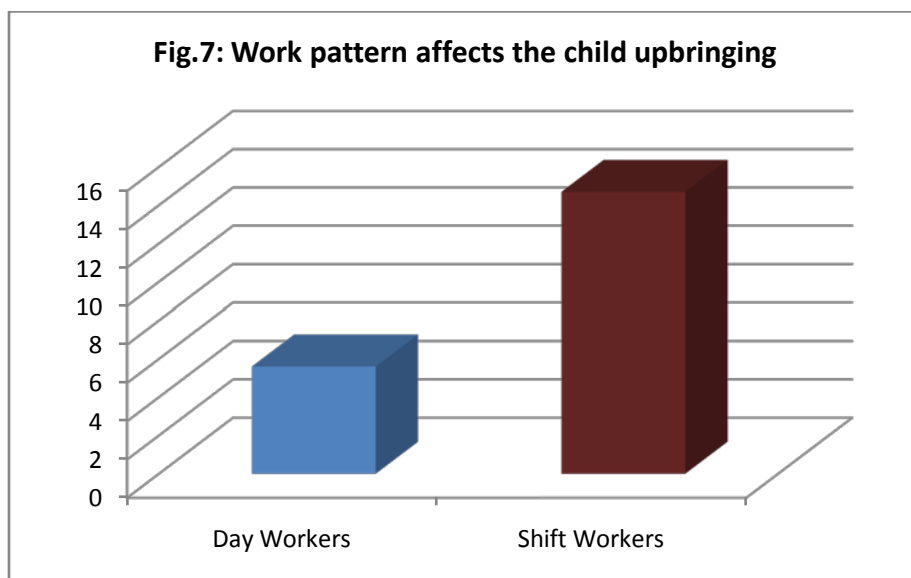
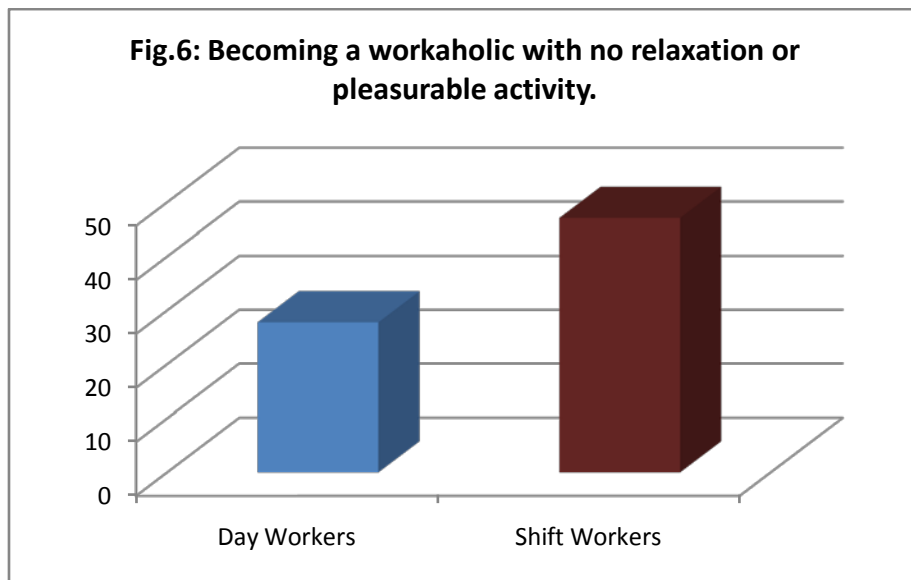
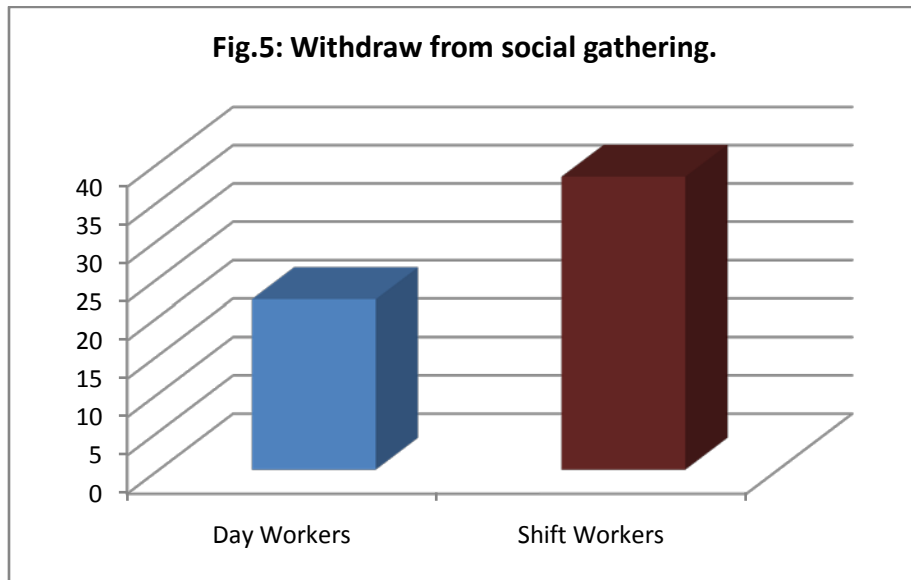
Becoming a workaholic with no relaxation or pleasurable activity.	Yes	10	27.8	16	47.1
	No	26	72.2	18	52.9
Work pattern affects the child upbringing	Yes	2	5.6	5	14.7
	No	4	11.1	2	5.9
Maintained balance between work and child care.	Yes	4	11.1	4	11.8
	No	2	5.6	1	2.9
Hard to supervise and help your child / children with their homework work.	Yes	2	5.6	2	5.9
	No	4	11.1	3	8.8
Prefer working alone to working with others.	Yes	6	16.7	11	32.4
	No	30	83.3	22	64.7
Habit of taking medicine for anxiety or depression	Yes	-		2	5.9
	No	36	100	32	94.1



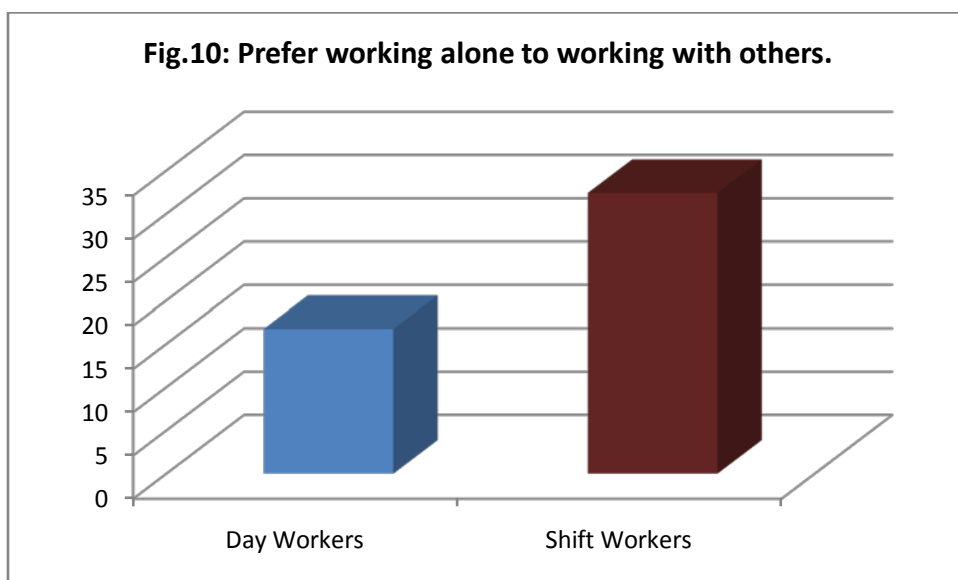
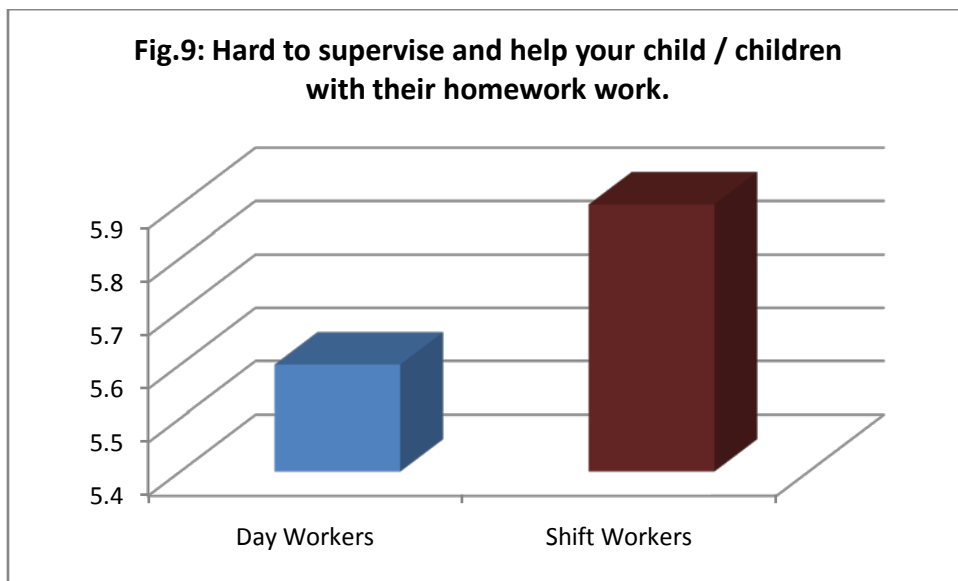
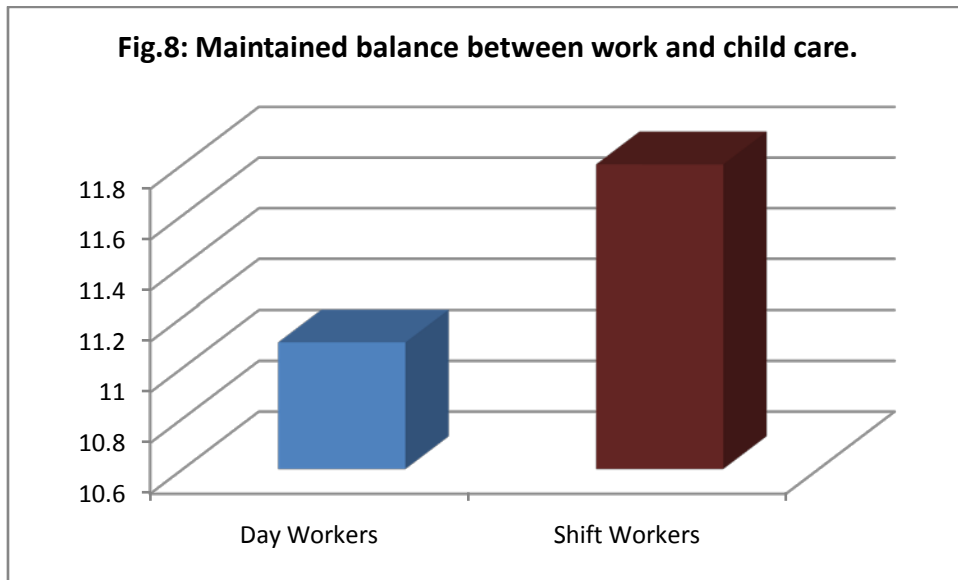
An Insight Into family And Social Relationships of Day Workers and Shift Workers in Visakhapatnam



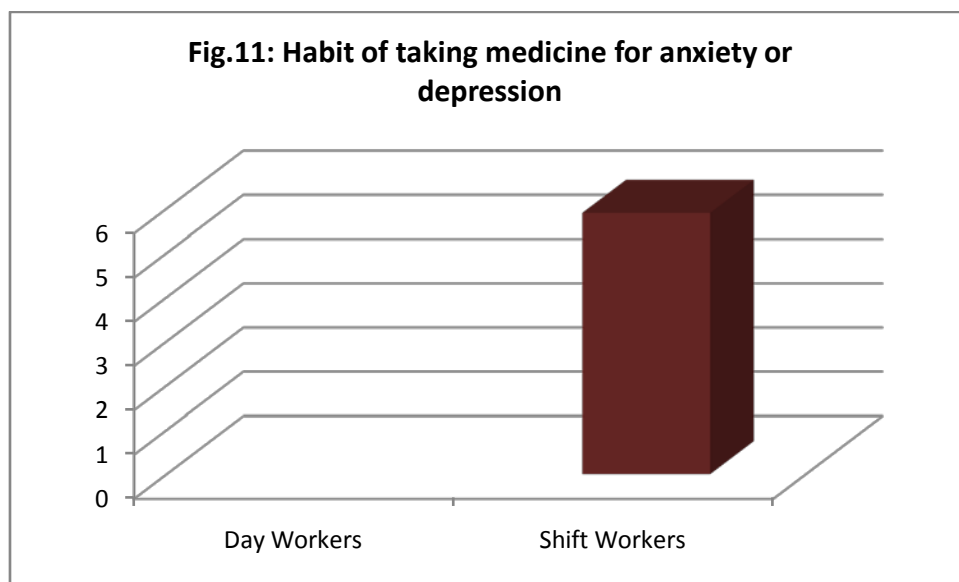
An Insight Into family And Social Relationships of Day Workers and Shift Workers in Visakhapatnam



An Insight Into family And Social Relationships of Day Workers and Shift Workers in Visakhapatnam



An Insight Into family And Social Relationships of Day Workers and Shift Workers in Visakhapatnam



CONCLUSION

With regard to the impairment of social leisure activities, personal leisure activities and ability to maintain close family relationships, majority of shift workers agreed that all these were affected due to their nature of job and the percentages of shift workers were found to be 61.8, 73.5 and 55.9 respectively. Whereas for day workers these percentages were 36.1, 52.8 and 30.6 respectively. Results depicted that 47.1 per cent shift workers became workaholic with no relaxation activities, but only 27.8 per cent of day workers were found to be workaholic. For social relationship there was not much difference found between the shift workers (26.5%) and the day workers (27.8%), 38.2 per cent and 32.4 per cent shift workers reported that they had withdrawn from social gatherings and preferred to work alone respectively, while this percentage was 22.2 and 16.7 in case of day workers. As there were only 19.4 per cent day workers and 23.5 per cent shift workers married in significant results were found for three questions related to child care. Six per cent shift workers were reported to take medicine for anxiety or depression.

Acknowledgement

Authors express indebtedness to the Almighty, who is the apostle of strength. Genuine thanks are expressed to all the authors/ researches whose work is referred for making the present study a real success. The researchers are thankful to the management of the industries for granting the permission of conducting research. Besides, immense thanks are expressed to all the respondents whose inputs are worth appreciation and acknowledged. Authors are inevitably grateful to all those directly as well as indirectly involved in the auspicious research work.

REFERENCES

Akerstedt T Shift work and disturbed sleep/wakefulness *Occup Med (Lond)* 2003; 53:89–94
[PubMed]

**An Insight Into family And Social Relationships of Day Workers and Shift Workers in
Visakhapatnam**

- Åkerstedt T Work injuries and time of day-national data *Shift Int News* 1995;12:2
- Akerstedt T, Kecklund G Age, gender and early morning highway accidents *J Sleep Res* 2001; 10:105–110 [PubMed]
- Akerstedt T, Kecklund G, Hörte LG Night driving, season, and the risk of highway accidents *Sleep* 2001;24:401–406 [PubMed]
- Akerstedt T, Kecklund G, Knutsson A Spectral analysis of sleep electroencephalography in rotating three-shift work *Scand J Work Environ Health* 1991;17:330–336 [PubMed]
- Akerstedt T, Kecklund G, Selén J Early morning work--prevalence and relation to sleep/wake problems: a national representative survey *ChronobiolInt* 2010;27:975–986 [PubMed]
- Connor J, Norton R, Ameratunga S, Robinson E, Civil I, Dunn R, Bailey J, Jackson R Driver sleepiness and risk of serious injury to car occupants: population based case control study *BMJ* 2002;324:1125 [PMC free article] [PubMed]
- Drake CL, Roehrs T, Richardson G, Walsh JK, Roth T Shift work sleep disorder: prevalence and consequences beyond that of symptomatic day workers *Sleep* 2004;27:1453–1462 [PubMed]
- Folkard S Do permanent night workers show circadian adjustment? A review based on the endogenous melatonin rhythm *ChronobiolInt* 2008;25:215–224 [PubMed]
- Folkard S Effects on performance efficiency In: Colquhoun WP, Costa G, Folkard S, Knauth P, editors *Shiftwork: problems and solutions* Frankfurt aM: Peter Lang; 1996 pp 65–87
- Folkard S, Tucker P Shift work, safety and productivity *Occup Med (Lond)* 2003;53:95–101 [PubMed]
- Hänecke K, Tiedemann S, Nachreiner F, Grzech-Sukalo H Accident risk as a function of hour at work and time of day as determined from accident data and exposure models for the German working population *Scand J Work Environ Health* 1998;24:43–48 [PubMed]
- Härmä M, Sallinen M, Ranta R, Mutanen P, Müller K The effect of an irregular shift system on sleepiness at work in train drivers and railway traffic controllers *J Sleep Res* 2002;11:141–151 [PubMed]
- Horne JA, Reyner LA Sleep related vehicle accidents *BMJ* 1995;310:565–567 [PMC free article][PubMed]
- Ingre M, Kecklund G, Akerstedt T, Söderström M, Kecklund L Sleep length as a function of morning shift-start time in irregular shift schedules for train drivers: self-rated health and individual differences *ChronobiolInt* 2008;25:349–358 [PubMed]
- Ingre M, Soderstrom M, Kecklund G, Åkerstedt T, Kecklund L Train drivers work situation Working hours, sleep, stress and safety, stress research Stockholm (Sweden): Swedish Institute for Psychosocial Medicine; 2000 Report no292
- Kecklund G, Akerstedt T Sleepiness in long distance truck driving: an ambulatory EEG study of night driving *Ergonomics* 1993;36:1007–1017 [PubMed]
- Lombardi DA, Folkard S, Willetts JL, Smith GS Daily sleep, weekly working hours, and risk of work-related injury: US National Health Interview Survey (2004-2008) *ChronobiolInt* 2010;27:1013–1030 [PubMed]

**An Insight Into family And Social Relationships of Day Workers and Shift Workers in
Visakhapatnam**

- Mitler MM, Carskadon MA, Czeisler CA, Dement WC, Dinges DF, Graeber RC
Catastrophes, sleep, and public policy: consensus report *Sleep* 1988;11:100–109
[PMC free article] [PubMed]
- Pack AI, Pack AM, Rodgman E, Cucchiara A, Dinges DF, Schwab CW Characteristics of
crashes attributed to the driver having fallen asleep *Accid Anal Prev* 1995;27:769–
775 [PubMed]
- Philip P, Akerstedt T Transport and industrial safety, how are they affected by sleepiness and
sleep restriction? *Sleep Med Rev* 2006;10:347–356 [PubMed]
- Reyner LA, Horne JA Falling asleep whilst driving: are drivers aware of prior sleepiness? *Int
J Legal Med* 1998;111:120–123 [PubMed]
- Roenneberg T, Kumar CJ, Merrow M The human circadian clock entrains to sun time
CurrBiol 2007;17:R44–R45 [PubMed]
- Rosa RR Napping at home and alertness on the job in rotating shift workers *Sleep*
1993;16:727–735 [PubMed]
- Schibler U Circadian time keeping: the daily ups and downs of genes, cells, and organisms
Prog Brain Res 2006;153:271–282 [PubMed]
- Torsvall L, Akerstedt T, Gillander K, Knutsson A Sleep on the night shift: 24-hour EEG
monitoring of spontaneous sleep/wake behavior *Psychophysiology* 1989;26:352–358
[PubMed]

How to cite this article: Farhoud F & Marwaha S (2017). An Insight Into family And Social Relationships of Day Workers and Shift Workers in Visakhapatnam. *International Journal of Indian Psychology*, Vol. 5, (1), DIP: 18.01.083/20170501, DOI: 10.25215/0501.083