

IMPACT OF SHIFT WORK ON WORK-LIFE BALANCE – A STUDY AMONG WOMEN EMPLOYED IN BPO

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ABSTRACT

Work-life balance is a contemporary issue that is gaining increasing attention from all the stakeholders, and is in the fore front of board room discussions. Change in the work force demographics and work culture, advancement in the field of communication and information technology are some of the factors that influence work-life balance. The Erosion of male bread winner model and the change in the values and attitude of the current generation work force makes it necessary to address the work-life balance issue. In BPO Industry, like men, women equally participate in the shift work, including night shift. A survey is conducted among women employed in BPO organizations to study the influence of shift work on work-life balance. Relationship between shift work and work-life conflict, life-work conflict, psychosomatic disorders and turnover intentions are studied. The findings of the study suggest that respondents working in non-standard working hours (working in second shift and night shift) had better work-life balance. Work-life conflict was found to be low for respondents working in second shifts and incidence of psychosomatic disorders was low for the respondents working in night shifts influence of shift work on work-life balance, work-life conflict, life-work conflict, psychosomatic disorders and turnover intentions.

Keywords: Work-life balance, Work-life conflict, Shift work, Psychosomatic disorders, Turnover intentions

I. INTRODUCTION

The increased participation of women in the labour force coupled with structural lag, resulted in struggle to achieve work-life balance by fulfilling the competing responsibilities related to paid work and family life (Hochschild and Machung). As work demands have increased and longer working hours has become the reality, work-life balance issue has gained increasing attention. How to attain success in work life without sacrificing the personal life has become a debatable issue (Lewis and Cooper 2005). Work-life balance is a state of equilibrium which is difficult to achieve. But when work schedules are standard and workers have control over their work timings, minimizing the work-life conflict would be easy (Halpern, 2005). Workers who generally work in day shifts or regular schedules are more likely to be satisfied with their level of work-life balance than those who work in irregular shifts or rotating shifts (Cara Williams, 2008). The reason may be that workers working in irregular shifts like night shifts, miss quality time with their family and children.

term refers to a harmonious interface between different domains of life (Frone, 2003). Greenhaus and Powell (2003) views work-life balance as “the extent to which an individual is equally engaged in and equally satisfied with his or her work role and family role. In the view of Clark, work-life balance is “satisfaction and good functioning at work and at home with a minimum of role conflict” (Clark, 2000.).

Work and family are the two main spheres of one's life. People play various roles in these two spheres which are generally conflicting. This conflict is known as work-to-family conflict. Greenhaus and Beutell (1985) defines Work-to-family conflict as an inter-role conflict that occurs when the demands of one role (e.g. Work) make it difficult to fulfill the demands of another role (e.g. Family). The term work-life conflict is broader than work-family conflict, which includes both work and non-work domains of life. Work-life conflict is a bidirectional construct. When work interferes with non-work life, the resulting conflict is known as work-life conflict and when non-work life interferes with work, the resulting conflict is known as life-work conflict. We use the term work-life conflict for our study.

II. REVIEW OF LITERATURE

Definitions of ‘work-life balance’ generally focus on the interface between work and private life. The

2.1 Shift work

Shift work means working non-standard hours, i.e., outside typical day schedule of 8 a.m. to 5 p.m on Monday –Friday (Presser 2003). It includes evening shift (3 p.m - 11 p.m or 4 p.m - 12 p.m), night shift (11 p.m - 7 a.m or 12 midnight to 8 a.m) and rotating shifts (alternating evening, night and day shifts). Shift work is different from flexible schedules, which involves variation in timing of arrival to and departure from the work place. Shift work may be arranged as fixed or rotating schedule. In fixed shifts, employees work in a particular shift like evening or day shift continuously. Whereas, in alternative shifts, the employee may work on all the shifts alternatively

Shift work is more common in several industries like manufacturing, processing, health care, IT and ITes-BPO. In Industries like manufacturing, shift work is common for male employees. To the contrary, women take equal participation along with men, in the shift work, in health care, IT, and ITES-BPO services.

2.2 Effects of shift work

A thorough review of literature relating to the effects of shift work provides us a wide pool of research findings. The studies discuss the effects or outcomes of shift work under three major heads: effects on physical health, effects on mental or psychological health, effects on family and community. Shift work was associated with higher incidence of physical health problems like digestion problems, muscle pains and heart problems (Zedeck et al. 1983), gastro-intestinal disorders (Dunham, 1977), musculo skeletal complaints and headaches (Parkes, 1999). Working in odd shifts, especially night shifts, affect the circadian rhythms, resulting in sleep related problems. Unlike the physical health problems, the relationship between shift work and psychological health problems is not clear. Few studies have reported that shift working, particularly long night shifts affect psychological health and well being (Barton et al. 1995; Bussing, 1996) and results in stress related problems (Scneider and Smith, 1996). A study by Mott et al. (1965) reported that shift work negatively affects marital happiness, parent-child relationship, and participation in community life. Recent research findings reveal that shift work affects the quality and stability of marriages (Presser ,2000, 2003) familial role and quality time spent with family(Fenwick and Tausig 2001; Jackson et al. 1985; Jamal and

Badawi 1995). Finally shift work affects the community life by reducing the social integration (Folkard et al)

Some studies provide us with different picture about working in shifts. A study conducted by Marshall (1998) found that shift work reduce the need for child care as the parents are available in the morning to get their children ready for school and in the evening to receive them from school which in turn reduce the work-life conflict. Similar research by Golla and Vernon (2006) suggests that non standard schedules such as night shifts are viewed as balancing technique by employees with child care responsibility. Choosing to work in night shifts also enable them to spend more time with their children. All the variables in this study are analyzed from the perspective of shift work

2.3 Psychosomatic disorder

Psyche means mind and soma means body. A psychosomatic disorder is a disease that involves both mind and body. A disease or illness that has physical symptoms and experienced physically but caused or worsened by mental factors is termed as a psychosomatic disorder. In medical terms, psychosomatic illness is any physical dysfunction where the primary or major cause is psychological rather than physical.

The review of literature relating to shift work (discussed earlier under effects of shift work) reveals that shift work is associated with several physical and psychological health problems. This study deals with the relationship between shift work and psychosomatic disorders.

2.4 Turnover intention

Turnover may be defined as the ratio of the number of organizational members who have left during the period being considered divided by the average number of people in that organization during the period. (Price, 1977). Turnover intention is the intention of employees to quit their organization. Conceptually it may be expressed as the relative strength of an individual's intent to leave the organization. Brigham, Castro & Shepherd, (2007) have demonstrated that turnover intentions are positively related to turnover. Identifying the turnover intentions is a pre-requisite to reduce the turnover. Shushmul (2005) and Punch (2004) have identified inability to balance work-life and family-life as one of the causes for turnover in BPO

industry. The impact of shift work on turnover intention is assessed in this study.

III. METHODOLOGY

BPO is an industry that works round the clock. Shift work is unavoidable in such industry. Almost all the companies in the industry work in shifts. One of the major problems faced by BPO industry is employee turnover. Work-life imbalance due to atypical work timings and shift work is one important reason for people to leave the organization (Pawan S. Budhwar *et al.*, 2009). Work-life balance becomes a tough task for those employed in BPOs. In their attempt to maintain a balance between the work life and personal life, they either quit their organisation or change their career by quitting the industry. This study aims to find out the impact of the shift work on work-life balance, work-life conflict, life-work conflict, psychosomatic disorders and turnover intentions. The impact of marital status and family structure on all these variables is also studied.

3.1 Sample

A survey was conducted among 711 women employees working in BPO organizations in Chennai. Convenience sampling technique is adopted for choosing the respondents for the study.

3.2 Profile of the Respondents

33.5% of the respondents are below 25 years of age, 32.1% of the respondents are between 26 and 30 years of age. 18.4% of the respondents are between 31 and 35 years of age and 16% are above 35 years of age. With respect to designation, 41.4% of the respondents belong to junior level, 34% belong to middle level and 24.6% belong to senior level. 49.4% of the respondents are married and 50.6% of the respondents are single. 71.4% of the respondents belong to joint family and 28.3% of the respondents live in nuclear family. Out of 351 married respondents 19.1% do not have children, 65.2% have one child and only 15.7% of the respondents have two children. 29.5% of the respondents have up to 2 years of experience in BPO, 33.2% have 2-5 years of experience, 21.8% have 5-8 years of experience and only 15.5% have above 8 years of experience in BPO. 14.9% of the respondents work in general shift, 2.5% work in second shift, 24.6% work in night shift, 57.9 % work in alternative shifts.

3.3 Hypotheses of the study

This study tested the following hypothesis:

- There is no significant difference in the level of work-life balance, work-life conflict and life-work conflict of employees working in different shifts
- There is no significant in the psychosomatic disorders experienced by employees working in different shifts
- There is no significant difference in the turnover intentions of employees working in different shifts.
- There is no significant difference in the work-life balance, work-life conflict, life-work conflict, psychosomatic disorders and turnover intentions of employees belonging to different family structure (joint family/ nuclear family) and different marital status (married/ single)

3.4 Measures

3.4.1 Work-Life Balance scale

To measure the work –life balance, a four item scale developed by Brough, Timms and Bauld (2009) was used. Respondents were asked to state the extent to which they agreed with the statements regarding work–life balance using a five-point Likert scale which ranged from 5 = ‘strongly agree’ to 1 = ‘strongly disagree’

3.4.2 Work - life conflict

Work-life conflict is a form of inter-role conflict whereby the role demands of one domain interfere with meeting the demands of a role in another domain (Greenhaus & Beutell, 1985). Work-life conflict was measured by a ten item scale developed by Netemeyer, Boles and McMurray. Respondents were requested to indicate their level of agreement to the ten items in a 7 point Likert scale, where 1 means ‘strongly disagree’ and 5 means ‘strongly agree’.

3.4.3 Turnover intention

Turnover intention was assessed with a 3-item scale developed by Mobley *et al.* (1978). Each item was measured on a 5-point scale from strongly disagree to strongly agree.

3.4.4 Psychosomatic Disorders

To find out whether the respondents experience psychosomatic disorders, a list of psychosomatic disorders (insomnia, anxiety, depression, fatigue, irritability, lack of concentration, migraine, ulcer) were given and respondents were asked how frequently they experience any of the disorders. It is measured using a five point scale ranging from never to always.

IV. RESULTS

To know whether there is significant difference in the work-life balance of the respondents working in different shifts, Analysis of Variance test (ANOVA) was conducted. ANOVA (Table:1) was followed by Duncan posthoc test (Table 2 to 6), to find out the differences between the groups. The results suggest that work-life balance of the employees working in different shift significantly differ ($F = 16.33$; $p < 0.01$). It is clear that the level of work-life balance vary among the employees based on the shift in which they work. When a posthoc Duncan test applied, to find out which of the groups differ from which other groups(Duncan test divides the entire group into homogenous subsets and facilitates inter-group comparison), the results revealed that the work-life balance of employees working in general shift and alternative shift is lower and significantly different from the employees working in night shift and second shift .

Similarly ANOVA revealed that except for the turnover intentions, all other variables like work-life conflict ($F = 5.58$; $p < 0.01$), life-work conflict ($F = 9.04$; $p < 0.01$), and psychosomatic disorders ($F = 11.43$; $p < 0.01$) differ significantly for employees working in different shifts. The Duncan test disclose that there is no significant difference in the work-life conflict of the employees working in night shift, alternative shift and general shift but the work-life conflict of employees working in second shift is significantly different and much lower than the other three groups. The life-work conflict is lower for employees working in second shift and they significantly differ from employees working in other shifts. Employees working in second shift were found to be the group with higher incidence (mean = 38.06) of psychosomatic disorders and significantly differ from employees working in general shift (mean = 33.20). The incidence of psychosomatic disorders was also less for employees working in night shift (mean = 34.53) and alternative shift (mean = 35.05) when compared to employees working in second shift. No

difference was observed in the turnover intentions ($F = 1.64$; $p > 0.05$) of employees working in different shifts.

Table 1. ANOVA

Variable	Shifts	Mean	S.D	F value	Sig
Work Life Balance	General	11.85	3.01	16.33	.000**
	Second	14.67	2.25		
	Night	14.46	3.75		
	Alternative	12.48	3.90		
	Total	12.93	3.83		
Work-Life Conflict	General	18.39	5.21	5.58	.001**
	Second	11.94	5.43		
	Night	16.82	6.71		
	Alternative	17.13	6.44		
	Total	17.11	6.38		
Life-Work Conflict	General	16.34	5.42	9.04	.000**
	Second	9.89	5.23		
	Night	13.56	5.92		
	Alternative	14.73	5.88		
	Total	14.56	5.91		
Psychosomatic Disorders	General	33.20	3.47	11.43	.000**
	Second	38.06	3.86		
	Night	34.53	4.23		
	Alternative	35.05	3.70		
	Total	34.72	3.89		
Turnover Intention	General	11.31	2.61	1.64	.178
	Second	10.83	2.41		
	Night	11.58	2.86		
	Alternative	11.81	2.63		
	Total	11.65	2.68		

Note: * * represents 1% level of significance
 * represents 5% level of significance

Table 2. Work Life Balance

Shift	N	Subset for alpha = .05	
		1	2
General	106	11.85	
Alternative	412	12.48	
Night	175		14.46
Second	18		14.67
Sig.		.377	.774

Table 3. Work-Life Conflict

Shift	N	Subset for alpha = .05	
		1	2
Second	18	11.94	
Night	175		16.82
Alternative	412		17.13
General	106		18.39
Sig.		1.000	.223

Table 4. Life-Work Conflict

Shift	N	Subset for alpha = .05		
		1	2	3
Second	18	9.89		
Night	175		13.56	
Alternative	412		14.73	14.73
General	106			16.34
Sig.		1.000	.292	.148

Table 5. PsychoSomatic Disorder

Shift	N	Subset for alpha = .05		
		1	2	3
General	106	33.20		
Night	175	34.53	34.53	
Alternative	412		35.05	
Second	18			38.06
Sig.		.068	.474	1.000

Table 6. Turnover Intention

Shift	N	Subset for alpha = .05
		1
Second	18	10.83
General	106	11.31
Night	175	11.58
Alternative	412	11.81
Sig.		.083

An independent sample t-test (Table: 7) was conducted to compare the work-life balance, work-life conflict, life-work conflict, psychosomatic disorders and turnover intentions of employees from joint family and nuclear family. There was no significant difference in the scores of work-life balance of respondents belonging to joint family (Mean = 12.83, SD = 4.01) and nuclear family (Mean = 13.17, SD = 3.31); $t = 1.081$, P value = 0.280. There was no significant difference in the work-life conflict of respondents belonging to joint family (Mean = 17.29, SD = 3.98) and nuclear family (Mean = 16.64, SD = 6.10); $t = 1.225$, P value = 0.221. There was no significant difference in the psychosomatic disorders experienced by the respondents belonging to joint family (Mean = 34.67, SD = 3.98) and nuclear family (Mean = 34.86, SD = 3.66); $t = 0.565$, P value = 0.572. The t-test results suggest that family structure does not have an effect on work-life balance, work-life conflict and psychosomatic disorders experienced by the respondents. There is significant difference between the respondents from joint family and nuclear family with respect to the life-work conflict (at 5% significance level) and turnover intentions (at 1% level of significance)

The independent sample t-test revealed that marital status of the individuals influence the work-life balance, work-life conflict, life-work conflict, psychosomatic disorders and turnover intentions. The test suggested that there exist significant difference (at 1% level of significance) between the married and unmarried employees in the work-life balance, work-life conflict, life-work conflict, psychosomatic disorders and turnover intentions. The higher mean score of work-life balance of unmarried respondents when compared to married respondents reveal that the work-life balance of the unmarried respondents was better than the married respondents. Similarly the lower mean score of work-life conflict, life-work conflict, psychosomatic disorders and turnover intentions of unmarried respondents suggested that the unmarried respondents experience them at lower levels when compared to married respondents.

Table 7. Independent Sample t- test

Variable	Family structure	N	Mean	S.D	t value	Sig. (2-tailed)
WLB	Joint family	510	12.83	4.01	- 1.081	0.280
	Nuclear family	201	13.17	3.31		
	Married	351	10.64	3.15	- 19.459	0.000**
	Single	360	15.16	3.04		
WLC	Joint family	510	17.29	6.48	1.225	0.221
	Nuclear family	201	16.64	6.10		
	Married	351	18.34	6.35	5.172	0.000**
	Single	360	15.91	6.19		
LWC	Joint family	510	14.22	5.82	- 2.426	0.016*
	Nuclear family	201	15.41	6.07		
	Married	351	15.52	6.21	4.339	0.000**
	Single	360	13.62	5.45		
PD	Joint family	510	34.67	3.98	- .565	0.572
	Nuclear family	201	34.86	3.66		
	Married	351	34.58	3.90	- 0.968	0.000**
	Single	360	34.86	3.89		
TI	Joint	510	11.87	2.40	3.478	0.001**
	Nuclear	201	11.10	3.23		
	Married	351	12.25	2.61	6.013	0.000**
	Single	360	11.07	2.63		

Note: * * represents 1% level of significance

* represents 5% level of significance

WLB – Work Life Balance, **WLC** – Work Life Conflict

LWC – Life Work Conflict, **PD** – Psychosomatic Disorder

TI – Turnover Intentions

V. DISCUSSION

This study was conducted to study the influence of shift work on work-life balance, work-life conflict, life-work conflict, psychosomatic disorders and turnover

intentions. Contrary to many previous studies, this study reveals that the work-life balance of employees working in night shift and second shift is better than the work-life balance of employees working in general and alternative shift. The findings of this study support the findings of the research by Golla and Vernon (2006) which suggests that non standard schedules such as night shifts are viewed as balancing technique by employees with child care responsibility. Work-life conflict, life-work conflict and psychosomatic disorders differ significantly for employees working in different shifts but the shifts did not influence the turnover intentions of employees.

The influence of variables like marital status and family structure of the respondents on the work-life balance, work-life conflict, life-work conflict, psychosomatic disorders and turnover intentions was also studied. Specifically, according to this study, we can interpret that living in joint family or nuclear family does not affect the work-life balance, life-work conflict and family psychosomatic disorders experienced by BPO employees but it influences life-work conflict and turnover intentions. The independent sample t-test suggested that marital status of the individuals affect the work-life balance, work-life conflict, life-work conflict, psychosomatic disorders and turnover intentions.

REFERENCES

- [1] Aryee, S.; Fields, D.; Luk, V.1999. A cross cultural test of a model of the work-family interface, *journal of management* 25(4): 491-511.
- [2] Blunsdon, B., Blyton, P., Reed, K., & Dastmalchian, A. (2006). Work, life and the Work-life issue. In A. Dastmalchian, B. Blunsdon, K. Reed, & P. Blyton, *work-life Integration, international perspectives on the* (pp. 1-16). New york: Palgrave Macmillan.
- [3] Brigham, K.H., Castro, J.O.D., & Shepherd, D.A. (2007). A Person-Organization Fit Model of Owner-Managers' Cognitive Style and Organizational Demands. *Baylor University* (1042-2587).
- [4] Cara Williams, " Work-life balance of shift workers", Perspectives on Labour and Income. Ottawa: Autumn 2008
- [5] Clark, S. C. (2000). Work/family border theory: a new theory of work/family balance. *Human Relations*, 53, 747-770.
- [6] Dunham, R.B. (1977). Shift work: a review and theoretical analysis. *The Academy of Management Review*, 2, 624-634

- [7] Fenwick, R., & Tausig, M. (2001). Scheduling stress: Family and health outcomes of shift and schedule control, *American Behaviour scientist*, 44, 1179-1198.
- [8] Fisher-Mcauley, G., Stanton, Jolton, J, & Gavin, J (2003). Modelling the relationship between work life balance and organizational outcomes. Paper presented at the Annual conference of the society for industrial-organizational psychology. Orlando, April 12, 2003, 1-26.
- [9] Folkard, S., Minors, D.S., & Waterhouse, J. M. (1985). Chronobiology and shift work: Current issues and trends. *Chronobiologica*, 12, 31-54
- [10] Frone MR (2003) Work-family balance. In: Quick JC and Tetrick LE (eds) *Handbook of Occupational Health Psychology*. Washington, DC: APA, 143–62.
- [11] Golla, Anne Marie and Victoria Vernon. 2006. Late for Dinner Again: Do Work Schedules and Home Schedules Clash? Washington, D.C. 54 p.
- [12] Greenblatt, e. (2002). Work/life balance: wisdom or whining. *Organizational dynamics* 31, 177-193.
- [13] Greenhaus, J H.; Parasuraman, S.; Collins, K. M. 2001. Career involvement and family involvement as moderators of relationships between work-family conflict and withdrawal from a profession, *Journal of Occupational Health Psychology* 6(2): 91-100.
- [14] Greenhaus, J.H., & Powell, G.N. (2003), "When work and family collide: Deciding between competing role demands", *Organisational Behaviour and Human Decision Processes*, 90, 291-303
- [15] Halpern, Diane F. 2005. "How time-flexible work policies can reduce stress, improve health, and save money." *Stress and Health*. Vol. 21, issue 3. August. P. 157-168.
- [16] Hochschild, A & Machung, A.(1989). *The second shift*. New York: Viking Press
- [17] Howard, w. G.; donofrio, h. H.; boles, j. S. 2004. Inter-domain work-family, family-work conflict and police work satisfaction, *an international journal of police strategies and management* 27: 380-395.
- [18] Jackson, S. E., Zedeck, S., & summers, E. (1985). Family life disruptions: effects of job induced structural and emotional interference. *Academy of Management Journal*, 28, 574-586.
- [19] Jamal, M., & Badawi, J.A. (1995). Nonstandard work schedules and nonwork experiences of Muslim immigrants: A study of minority in the majority. *Journal of Social Behaviour and Personality*, 10, 395-408
- [20] Kalliath, T., & brough, P. (2008). Work-life balance: A review of the meaning of the balance construct. *Journal of management and organization*, 14 (3), 323-327.
- [21] Kinnunen, U.; Mauno, S. 1998. Antecedents and outcomes of work-family conflicts among employed women and men in finland, *human relations* 51: 157-177.
- [22] Kofodimos, J.R. (1993). *Balancing act*. San francisco: jossey-bass.
- [23] Lewis, S and Cooper, C.L. (2005). *Work-life integration: Case Studies of organizational change*. West Sussex: Wiley
- [24] Marshall, Katherine. 1998. "Couples working shift." *Perspectives on Labour and Income*. Vol. 10, no. 3. Autumn. Statistics Canada Catalogue no. 75-001-XPE. p. 9-14.
- [25] Moen, P. (1998). Recasting careers: changing reference groups, risks, and realities. *Generations*, 22, 40-45.
- [26] Mott, P.E., Mann, F. C., McLoughlin, Q., & Warwick D.P. (1965). *Shift work: the social, psychological and physical consequences*. Ann Arbor, MI: University of Michigan press.
- [27] Parkes, K.R. (1999). Shift work, job type, and the work environment as joint predictors of health related outcomes. *Journal of occupational health psychology*, 4, 256-268.
- [28] Pawan S. Budhwar, Arup Varma, Neeru Malhotra, Avinandan Mukherjee, "Insights into the Indian call centre industry: can internal marketing help tackle high employee turnover?" *Journal of Services Marketing* 23/5 (2009) 351–362).
- [29] Presser, H.B. (2003). *Working in a 24/7 Economy: Challenges for American families*. NY: Russell Sage Foundation
- [30] Price, J.L (1977). *The study of turnover*, 1st edition, Iowa state university press, IA 10-25.
- [31] Schmieder, R. A., Smith, C.S. (1996). Moderating effects of social support in shift working and non-shift working nurses. *Work & Stress*, 10, 128-140.
- [32] Shushmul, P. (2005), "When sick leave is rampant and attrition soars high", *Callcentre helper.com*.
- [33] Zedeck, S., Jackson, S.E., & Summers, E. (1983). Shift work schedules and their relationship to health, adptation, satisfaction and turnover intention. *The Academy of Management Journal*, 26, 297-310.
- [34] <http://www.patient.co.uk/health/psychosomatic-disorder-s.htm>