



ORIGINAL RESEARCH PAPER

Management

THE RELATIONSHIP BETWEEN SHIFT WORK AND WORK-RELATED DISORDERS AMONG NURSES

KEY WORDS: Shift work, Nurse, Job satisfaction, Hospital management.

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ABSTRACT

Aim: The purpose of this study was to access work-related disorders and the relationship between shift work.
Methods: The Survey of Shift workers (SOS) questionnaire was used to collect data on the nurses' job satisfaction, type of system shift work, sleep time, insomnia, muscle-skeletal disorders, sedative drugs, and the adverse effects of shift work on the individual social and domestic life, as well as the gastrointestinal, cardiovascular and mental health problems.
Results: Sleep disorders were more prevalent in the staff working at night or on shifts than those working a regular day-time schedule. 75% of nurses having problem in getting into sleep. 81% of nurses have digestive problem. More than 80% of nurses having domestic life and psychological problems.
Conclusion: Our study recommends that shift work is assigned preliminarily to the nurses who voluntarily choose to work on shift in order to reduce the associated disorders, and increase the nurses' job satisfaction.

INTRODUCTION

Job satisfaction is an important factor in marital satisfaction so that all organizations and institutions have a social department for the family of worker that play special role and all couples intend to enjoy marital life and have satisfaction feeling, the job satisfaction is the important part from the life (1). Studies have shown that individuals' employment status has a significant role in their satisfaction with married life in their marital life. Low income, job insecurity, and tension are associated with low marital satisfaction. Nursing is a job which is potentially stressful and this stress will be doubled if there is the working shift in turn, evening and night. Some studies have indicated that shift work can lead to health problems such as metabolic syndromes [2, 3]. In addition, night shift work could have significant effects on the sleeping patterns in the long run, leading to higher cardiac sympathetic regulation [4]. Shift work is recognized as an occupational stressor that affects the consent of job satisfaction among the hospital nurses [5-8]. Among the different patterns of shift work, in particular, the night shift work has been shown to bring about more serious health risk. A survey of prospective, longitudinal data from the nurses' health study also indicated an increase in the risk of cardiovascular diseases in the nurses who worked rotating shifts for more than 6 months when compared with the nurses who never rotated shifts or those who had worked rotating shifts for fewer years.

AIM

The purpose of this study was to access work-related disorders and the relationship between shift work.

MATERIALS AND METHODS

This observation study was conducted in nurses from various hospitals. The Survey of Shift workers (SOS) questionnaire was used to collect data on the nurses' job satisfaction, type of system shift work, sleep time, insomnia, muscle-skeletal disorders, sedative drugs, and the adverse effects of shift work on the individual social and domestic life, as well as the gastrointestinal, cardiovascular and mental health problems. The data collection tools were administered through direct meeting with the nurses. The time and place for completing the questionnaire were determined by the nurses. The time to complete the questionnaire was unrestricted.

RESULTS

In our study 50 nurses from various hospitals were included. Most of them are in age group of 20 to 30 years. Female are more in this study, 94% of nurses are married. 76% of nurses are undergraduate, 38% of nurses are having less than 5 years of work experience. Sleep disorders were more prevalent in the staff working at night or on shifts than those working a regular day-time schedule. 75% of nurses having problem in getting into

sleep. 81% of nurses have digestive problem. More than 80% of nurses having domestic life and psychological problems.

Table 1 Demographic and professional characteristics

Chara eristics	Number of Nurses	Percentage
Age	24-30	28 56%
	31-40	16 32%
	41-50	6 12%
Gender	Female	46 92%
	Male	4 8%
Marital status	Single	3 6%
	Married	47 94%
Level of education	Undergraduate	38 76%
	Post Graduate	12 24%
Work experience	<5	19 38%
	5-10	16 32%
	10-20	12 24%
	20-30	3 6%
History of shift working	<5	18 36%
	5-10	4 8%
	10-20	25 50%
	20-30	3 6%
Select the type of shift working	Voluntary	8 16%
	Mandatory	42 84%
Satisfaction of shift working	Yes	12 24%
	No	38 76%

Table 2 Distribution of Disorders

Disorders	Percentage	
Cardiovascular problems	Blood pressure	12%
	Dyspnea	26%
	Chest pain	16%
	Heart palpitation	29%
	Cardiovascular disorders	18%
Sleep problems	Problem with early morning wake up	50%
	Sleep disorders	71%
	Problem in getting to sleep	75%
	Dissatisfaction with daily sleep	39%
Musculoskeletal problems	Problem with in place of sleep	80%
	Pain in the shoulder /neck	42%
	Back pain	62%
	Pain in the arm /wrist	42%
	Pain in the leg /knee	69%

Digestive	Yes	81%
	No	19%
Social life problems	Yes	85%
	No	16%
Consume of sedative drugs	Yes	13%
	No	87%
Domestic life problems	Yes	77%
	No	23%
Personal life problems	Yes	76%
	No	24%
Psychological problems	Yes	96%
	No	4%

Our findings indicated an inverse significant relationship between satisfaction with shift work and undesirable effects of shift work on the nurses' personal, family and social life. A similar result was achieved by Choobineh et al. when investigating the shift work-related problems of the operating room technicians [9]. Researches have indicated that shift work may have several negative effects on different aspects of life. Among these effects are psychological and digestive problems. Being affected by shift working is highly prevalent in the nursing staff. This prevalence may be attributed to the lack of conformity of the body's biologic cycle with the shift work system schedule [10]. In contrast to several studies showing a significant role for shift work in appearance of digestive disorders [11, 12], such a significant relationship was not observed in our survey. This discrepancy may be due to the environmental, organizational, and cultural differences, as well as the nature of the shift work system, working hours per week, employment status, and education level in different communities. In addition, mental/psychological disorders have been shown to be effective in the appearance of digestive problems [13]. Our results showed that nurses who have voluntarily chosen shift work were more satisfied with their job compared with those who have been obligated to work on shift. A similar result has been achieved in the study of Bohle et al. [14].

CONCLUSION

In this study, we investigated the prevalence of shift work related disorders among the nurses and the impact of shift work on the nurses' quality of life. Emotional and mental problems, social life problems, digestive problems, and sleep disorder were among the most frequent shift work related problems in the surveyed nurses.

REFERENCES

- Judge TA, Watanabe S. Another look at the job satisfaction-life satisfaction relationship. *J Appl Psychol* 1993, 78(6):939-48.
- Callaghan P, Tak-Ying SA, Wyatt PA. Factors related to stress and coping among Chinese nurses in Hong Kong. *J Adv Nurs* 2000, 31(6):1518-27.
- Gates DM. Stress and Coping. A model for the workplace. *AAOHN J* 2001, 49(8):390-8.
- Persson M, Mirtensson J. Situations influencing habits in diet and exercise among nurses working night shift. *J Nursing Manage* 2006, 14(5):414-23.
- Lancaster J, Pickles D, Dobson K. Barriers to healthy eating in the nursing profession: part 1. *Nurs Stand* 2001, 15(36):33-6.
- Geliebter A, Gluck ME, Tanowitz M, Aronoff NJ, Zammit GK. Work-shift period and weight change. *Nutrition* 2000, 16(1):27-9.
- Esquirol Y, Bongard V, Mabile L, Jonnier B, Soulat JM, Perret B. Shift work and metabolic syndrome: respective impacts of job strain, physical activity, and dietary rhythms. *Chronobiol Int* 2009, 26(3):544-59.
- De Bacquer D, Van Risseghem M, Clays E, Kittel F, De Backer G, Braeckman L. Rotating shift work and the metabolic syndrome: a prospective study. *Int J Epidemiol* 2009, 38(3):848-54.
- Kawachi I, Colditz GA, Stampfer MJ, Willett WC, Manson JE, Speizer FE, Hennekens CH. Prospective study of shift work and risk of coronary heart disease in women. *Circulation* 1995, 92(11):3178-82.
29. Skipper JK, Jung FD, Coffey LC. Nurses and shiftwork: effects on physical health and mental depression. *J Adv Nurs* 1990, 15(7):835-42.
- Ruggiero JS. Correlates of fatigue in critical care nurses. *Res Nurs Health* 2003, 26(6):434-44.
- Lee S, Colditz GA, Berkman LF, Kawachi I. Prospective study of job insecurity and coronary heart disease in US women. *Ann Epidemiol* 2004, 14(1):24-30.
- McVicar A. Workplace stress in nursing: a literature review. *J Adv Nurs* 2003, 44(6):633-42.
- Barton J, Folkard S, Smith L, Spelten E, Totterdell P. Standard shift work index manual. *J Appl Psychol* 2007, 60:159-70.