

ORIGINAL ARTICLE

FAMILY RESPONSIBILITIES AND INVOLUNTARY JOB ABSENTEEISM AMONG NURSES IN TEACHING HOSPITAL

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ABSTRACT

Dual competing responsibilities between work and family are the challenges faced by most of the healthcare staff. Ineffective handling of these responsibilities may contribute to absenteeism which further disrupt the quality of work and reduce customer satisfaction. The aims of this study were to determine the prevalence of job absenteeism and to identify the association between family responsibilities and job absenteeism among nurses in teaching hospital. This was a cross sectional study targeted to nurses working in medical and surgical field based in a hospital. Questionnaires were distributed using stratified random sampling. Those with working services of less than one year were excluded. The mean age was 35.9 (SD=6.44) years old. Majority were female (94.0%) and Malay (96.0%). The one-year prevalence of absenteeism was 78.0% and majority were due to emergency leaves. Taking care of elderly and no help obtained for taking care of child showed significant associations with job absenteeism which both yielded four times higher odds for being absent. Employees with additional family responsibilities should receive support by the organisation to prevent further job absenteeism among nurses.

Keywords: Family responsibilities; Job absenteeism; Nurses; Teaching hospital; Work Family Conflict; General Health Questionnaire

INTRODUCTION

Hospital is a health care institution with specialized medical personnel, nursing staff and medical equipment. The quality of its management system plays an important role in ensuring good services provided to all patients. Nurses contribute to the largest group of professionals in the healthcare system which accounts for the total of 89167 nurses¹. 56503 nurses are under Ministry of Health, whereby 29850 nurses are under public sector and 26653 nurses are under private sector^{1,2}. Despite the introduction of male counterparts in this profession, majority of them are female^{1,2}. Female workers in general struggles with multiple roles. They usually need to act simultaneously as an employee, parent, daughter and wife³. Challenges occur nowadays in fulfilling the work and family demand under constraint current economic pressure. According to studies, nurses were found to have high prevalence of absenteeism which majority were due to sickness absence⁴. Study on the prevalence of job absenteeism in university hospital in Brazil revealed 68.6%, among the highest and the greatest contribution was among nurses⁵. However, the exact figure on the number of absenteeism among nurses in Malaysia is unknown. Therefore, it is important to analyse the issues pertaining to nurses in order to ensure the quality

of hospital services been maintained especially for the teaching hospital as one of the referral centres.

Absenteeism can be defined as continuous or persistent absence from scheduled work often without any valid reason⁶. Other literature defines absenteeism as the inability of the employee to present for the work duties without permission from the employer⁷. Absence can be divided into voluntary and involuntary absence^{8,9}. March and Simon (1958) were the first to conceptualise this view on absenteeism. Involuntary absence is the absence due to certain underlying explainable reasons such as illness or family problem¹⁰. Voluntary absenteeism includes reasons such as deviance and holidays, while involuntary absenteeism includes reasons out of an employee's control such as sickness and funeral attendance¹¹. In Malaysia, involuntary leave allowed for public sector workers includes sickness leave and emergency leave². However, most studies focus on sickness absence among nurses but there is lack of studies looking at both sickness leave and emergency leave. Since both involuntary leaves may lead to unforeseen work disruption and sudden increase in workload to other colleagues, a study on this problem is much needed.

Sickness is defined as the outcome of a disease and illness. The outcomes are decided whether medical help, rest or support is needed¹³. According to Employment Act 1955, sick leave entitlement is the right to be given due to medical illness which issued by the registered medical practitioner. The paid sick leave provided are according to the years of services of an employee and the position of the employee¹². On the other hand, emergency leaves had been stated in Public Sector Service Circular Number 4, 2009, whereby, there are two types of emergency leaves allowed in the service includes general emergency and personal emergency¹². General emergency involves leaves because of natural disasters such as floods, landslides, earthquakes etc whereby, permission from the head must be granted and leave entitlement per year will not be deducted. Personal emergency involves disaster or accident to personal or property of an officer; in this case an employee is required to obtain permission from the head of department and leave entitlement for the year will be deducted.

It is common for workers to be absent from work to attend to other responsibilities that need urgent attention. Traditionally women are expected to be absent more compared to male in view of their commitment towards managing household duty¹⁴. Family responsibilities include the responsibilities of working individual towards their own children, and caring for another family member such as parents, siblings, aunts and uncles¹⁵. Survey had reported that half of working mother had lost their wages for taking care of sick children instead of working¹⁵. Those who had difficulties in arrangement of their child during their working periods had been reported to have job stress that leads to job absenteeism¹⁶. World are towards an aging population which extra attention is needed, however most of the family-related caregivers are working. Having an elderly at home to be taken care of had been said to cause poor job performance¹⁷. However, other study done showed that family responsibilities are not the main reason for departure at work¹⁸.

Dual responsibilities that affect both roles at work or home can be presented by the work-family conflict (WFC) concept. Problems may arise out of the need to balance the family and work responsibilities. The consequences of high level of WFC can lead to anxiety and depression, interpersonal conflict such as divorce, work performance, and absenteeism¹⁹⁻²¹.

The study was done to determine the one-year prevalence of job absenteeism among nurses in teaching hospital and to identify determinants of job absenteeism, including WFC, among them.

METHODOLOGY

Study design and sample size

This was a cross sectional study conducted in a teaching hospital among nurses working in Clinical Department. The appropriate sample size for this study was calculated using prevalence for finite population correction formula²². Two-sided confidence level was set at 95% with 5% margin of error and 70% population proportion⁵. Thus, the minimum number of respondents calculated was 100. Considering the drop-out rate of 10%, the final sample size needed was 110 respondents.

Sampling frame and data collection

Sampling was done using stratified random sampling where the nurses were grouped according to the basic field of their workplaces (medical field and surgical field). Since the number of nurses in both fields were nearly equal, 55 nurses from each field were randomly selected to give a total of 110 respondents. The number of final respondents were 100, thus the response rate was 91.0%. Self-administered questionnaires were given to them with guidance given verbally.

Study instrument

The study instrument was self-administered questionnaire containing six sections:

The first section contained individual characteristics which include age, gender, race, marital status and income. Age had been categorized into less than 30, 30 to 40 years old and more than 40 years old. Gender comprises of male and female, race categorized as Malay and non-Malay. Marital status was categorized by single or divorce and married. Income and household income were categorized according to those with income of less than RM 3860 and those with income of RM3860 and above¹.

The second section consist of information on work characteristics which include job position, place of work, duration of work services and the number of leave entitled in a year. Job position was categorized as administrative group (matron/sister) and staff nurse. Whereas, working place was categorized as medical field (medical, psychiatry, paediatrics, emergency, anaesthesiology and family medicine) and surgical field (orthopaedics, obstetrics and gynaecology and surgical). Duration of working services being categorized as less than 10 years and 10 years and above while leave entitlement in a year categorized into less than 30 days and 30 days and above.

The third section captured information on family characteristics including number of children, age of smallest child, and responsibilities in taking care of

child less than five years old, children age six to ten years old, adolescent, elderly, disabled people and sick people. Respondents were asked whether they had assistance support for housework and taking care of child, adolescent, elderly, disabled people or sick people.

Perceived WFC were also observed by using the Work Family Conflict (WFC) Questionnaires. WFC Questionnaires was developed by Kelloway et al. (1999). This questionnaire referring to the strain that family responsibilities impose on employee which led to lack of time and energy to perform job obligations. Questionnaire was available in validated Malay version²³. The internal consistency of the scale using Cronbach's alpha value ranged from 0.75 to 0.85. It consists of 22 Likert type items. The options in the scale ranged from one (strongly disagree) to five (strongly agree). Overall score is 22 to 110. The average score of 22 Likert scale item were taken. The higher the score indicates greater experienced of work family conflict.

Health characteristics were obtained by asking their medical comorbidities such as diabetes mellitus, hypertension, asthma, low back pain, and others. Respondents BMI were recorded and categorized as less than 25.0 kg/m² and 25.0 kg/m² and above. For mental health, General Health Questionnaires (GHQ) was used. GHQ was developed by Goldberg (Goldberg, 1978) to measure mental health status of respondents. The GHQ has been validated in the Malay language²⁴. The GHQ has a high degree of internal consistency with alpha Cronbach of 0.79.

It consists of 12 Likert item scales. The scoring ranged from zero (more than usual) to three (least than usual) which led to a total score between 0 to 36. The average score of 12 Likert scale item were taken. The higher the score denotes poorer mental health status.

Involuntary job absenteeism was obtained from the self-reported number of days the respondents took sick leaves (with medical certificates issued by medical practitioners registered under Malaysia Medical Council) and emergency leaves for the past one year²⁵. Absent was recorded as 'yes' and vice versa. The number of days of involuntary absenteeism also recorded descriptively.

Data analysis

Data was analysed using 'Statistical Package for Social Sciences' (SPSS) Version 21.0. Statistical significance level was taken at the p value <0.05 with 95% confidence intervals (CI). Data screening

and exploration was done with normality test for continuous data distribution using the Kolmogorov-Smirnov test. The descriptive data presented as the frequency (n) and percentage (%). Continuous variables were summarized by using median and interquartile range (IQR). Wilcoxon Rank Sum test was used to compare the mean score of WFC and job absenteeism. On the other hand, categorical variables were run using Chi Square test however Yates correction will be taken if expected count of less than five is more than 20%. Simple logistic regression was used for testing the independent strength of association. Multiple logistic regression analysis was used to describe the strength of association between multiple factors and outcome.

RESULTS

Table 1 and Table 2 showed the descriptive analysis of individual and work characteristics of respondents respectively. The mean age of the respondents was 35.9 (SD=6.4) years old. Majority were female (94.0%), Malay (97.0%) and married (91.0%). Most of them had personal and household income less than RM 3860 (65.0%) and RM 3860 and above (73.0%) respectively. Majority worked more than 10 years (55.0%) and had leave entitlement 30 days and above (59.0%).

For the family characteristics of respondents (Table 3), majority of the respondents who are married (91.0%) had three and more children (54.3%) and age of smallest child were six years old and below (66.0%). In terms of responsibilities, half of the respondents had to take care of child of less than five years old. Around 16% of them had to take care of elderly. Among them only 5.0% desire to have elderly centre at their workplace. In terms of housework, majority of them obtained help for housework and for taking care of child. WFC score recorded as median score of 54.00 (IQR 14.00).

In terms of health characteristics (Table 4), majority (81.0%) of respondents did not have medical illness. However, majority (60.0%) of them had BMI of 25.0 kg/m² and above. Mental health component among respondent revealed GHQ median score of 8.00 (IQR 5.75). Table 5 shows the prevalence of involuntary absenteeism among nurses in teaching hospital. The one-year prevalence (including sick leaves and emergency leaves) among respondents was 78%. Shortest duration of day leave taken for the past one year was one day and the longest was 17 days. Those who are taking emergency leaves were higher as compared to sick leaves for the past one year.

Table 1: Descriptive analysis of individual (n=100)

Variables	Frequency (n)	Percentage (%)
Age, years		
Less than 30 years old	28	28.0
30 to 40 years old	50	50.0
More than 40 years old	22	22.0
Gender		
Female	94	94.0
Male	6	6.0
Race		
Malay	97	97.0
Non-Malay	3	3.0
Marital Status		
Married	91	91.0
Single / divorce	9	9.0
Income		
Less than RM 3860	65	65.0
RM 3860 and above	35	35.0
Household Income		
Less than RM 3860	27	27.0
RM 3860 and above	73	73.0

Table 2: Descriptive analysis of work characteristics (n=100)

Variables	Frequency (n)	Percentage (%)
Job position		
Matron/Sister	50	50.0
Staff nurse	50	50.0
Working Place		
Medical field	50	50.0
Surgical field	50	50.0
Years of services		
Less than 10 years	45	45.0
10 years and above	55	55.0
Leave entitlement in 1 year		
Less than 30 days	41	41.0
30 days and above	59	59.0

Wilcoxon Rank Sum Test were run for WFC score and GHQ score with job absenteeism. Based on the result, there is no association between WFC and GHQ score with job absenteeism (Table 6). Pearson Chi Square Test was used for bivariable analysis for categorical independent variables. Significant association were seen between marital status, taking care of elderly and assistance to take care of child with job absenteeism (Table 7).

Table 8 presented simple logistic regression and multiple logistic regression tests. Based on the result, the odds of job absenteeism among being

single is eight times higher than those who were married. Nevertheless, this was not significant in the multivariable analysis. Subsequently, the odds of job absenteeism among those who had extra responsibilities for taking care of elderly is almost four times higher than those who do not. The similar findings noted in multivariable analysis. Then, the odds of job absenteeism among those who do not had assistance for taking care of child is almost four times higher than those with assistance from spouse or family. This finding reveals the same in multivariable analysis.

There were no interactions noted between variables. Multicollinearity was not present as the variation inflation factor were less than 10. Hosmer and Lemeshow goodness of fit test demonstrated

that this data set fitted well to the logistic model. This model could predict 83.0% of respondents with job absenteeism correctly.

Table 3: Descriptive analysis of family characteristics (n=100)

Variables	Frequency (n)	Percentage (%)	Median	IQR
No of Children (n = 94)				
Two children and below	43	45.7		
Three and more children	51	54.3		
Age of smallest child (n = 94)				
6 years old and below	62	66.0		
7 years old and above	32	34.0		
Taking care of:				
Child 5 years old and below	51	51.0		
Children 6-10 years old	43	43.0		
Adolescent 11-19 years old	40	40.0		
Elderly more than 60 years old	16	16.0		
Disabled people	7	7.0		
Sick people	11	11.0		
Had assistance from spouse/ family				
Housework	67	67.0		
Taking care of child	62	62.0		
Taking care of adolescent	26	26.0		
Taking care of elderly	15	15.0		
Taking care of sick people	8	8.0		
Taking care of disabled people	5	5.0		
Need elderly centre	5	5.0		
Work Family Conflict score			54.00	14.00

Table 4: Descriptive analysis of health characteristics (n=100)

Variables	Frequency (n)	Percentage (%)	Median	IQR
Body mass index, in kg/m²				
Less than 25.0	40	40.0		
25.0 and above	60	60.0		
Comorbidities				
Yes	19	19.0		
No	81	81.0		
General Health Status score			8.00	5.75

Table 5: 1-year prevalence of involuntary job absenteeism among nurses (n=100)

Variables	Yes, n (%)	No, n (%)
Involuntary job absenteeism	78 (78.0)	22 (22.0)
Sick leaves (medically-certified leaves)	52 (52.0)	48 (48.0)
Emergency leaves	65 (65.0)	35 (35.0)

Table 6: Bivariable analysis of WFC score and GHQ score with job absenteeism (n=100)

Variables	Wilcoxon Rank Sum Test		p-value
	n ₁	n ₂	
Work Family Conflict score	943	4006	0.385
General Health Questionnaire score	858	4192	0.996

Table 7: Bivariable analysis of variables and job absenteeism (n=100)

Variables	Job Absenteeism		x ²	p-value	
	Yes, n(%)	No, n(%)			
Marital Status	Married	79 (86.8)	12 (13.2)	10.420	0.007
	Single / divorce	4 (44.4)	5 (55.6)		
Income	Less than RM 3860	54 (83.1)	11 (16.9)	0.001	1.000
	RM 3860 and above	29 (82.9)	6 (17.1)		
Household income	Less than RM 3860	20 (74.1)	7 (25.9)	2.088	0.288
	RM 3860 and above	63 (86.3)	10 (13.7)		
Services	Less than 10 years	39 (86.7)	6 (13.3)	0.780	0.432
	10 years and above	44 (80.0)	11 (20.0)		
Leave	Less than 30 days	34 (82.9)	7 (17.1)	0.000	1.000
	30 days and above	49 (83.1)	10 (16.9)		
No of children	Two children and below	39 (90.7)	4 (9.3)	1.363	0.370
	Three and more children	42 (82.4)	9 (17.6)		
Age of smallest child	5 years old and below	54 (91.5)	5 (8.5)	3.813	0.066
	6 years old and above	27 (77.1)	8 (22.9)		
Taking care of:	Child less than 5 years old	45 (88.2)	6 (11.8)	2.022	0.189
	Children 6-10 years old	37 (86.0)	6 (14.0)		
	Adolescent 11-19 years old	33 (82.5)	7 (17.5)		
	Elderly more than 60 years old	10 (62.5)	6 (37.5)		
Had assistance for:	Housework	56 (83.6)	11 (16.4)	0.049	1.000
	Taking care of child	56 (90.3)	6 (9.7)		
	Taking care of adolescent	23 (88.5)	3(11.5)		
	Taking care of elderly	11 (73.3)	4 (26.7)		
Body mass index	Less than 25.0 kg/m ²	32 (80.0)	8 (20.0)	0.425	0.591
	25.0 kg/m ² and above	51 (85.0)	9 (15.0)		
Comorbidities	Yes	16 (84.2)	3 (15.8)	0.024	1.000
	No	67 (82.7)	14 (17.3)		

DISCUSSION

This study was conducted in teaching hospital among nurses whereby majority of respondents were Malay and female. Majority were young adult with mean age of 35.9 years old and married. The prevalence of involuntary job absenteeism among nurses in teaching hospital was higher compared to other study done in the same middle-income country in hospital setting in India in 2010 which mostly contributed by unplanned sickness absence⁴. This is due to increase in diseases of the respiratory tract, digestive system, infections and

injury. Furthermore, the sickness leaves mostly due to maternity leave. In this study, the prevalence of involuntary job absenteeism mainly was due to emergency leaves which is not been measured by other study. Different in terms of policies and the rules stated by different country limits the comparison of involuntary absenteeism. This phenomenon might be due to different background environment in terms of responsibilities, facilities, cultures and systems. Therefore, further study needs to be done in local state for better comparison.

Table 8: Simple logistic regression and multiple logistic regression test[#]

Variables	Simple Logistic Regression				Multiple Logistic Regression			
	Crude OR ^b	95% CI	x ² stat. ^a	p value	Adj. OR ^b	95% CI	x ² stat. ^a	p value
Marital Status								
Single	8.30	1.9,35.0	2.108	0.004	3.35	0.5,23.4	1.488	0.223
Married	1.00							
Taking care of elderly								
Yes	3.98	1.2,13.2	5.142	0.023	4.43	1.3,16.5	4.836	0.014*
No	1.00							
Had assistance for taking care of child								
No	3.80	1.3,11.4	5.709	0.017	4.23	1.3,13.4	3.910	0.019*
Yes	1.00							

[#] Only significant crude OR were presented in table 8
^a likelihood ratio, ^b Odds Ratio, * p < 0.05, R²: 0.214

Women nowadays involved in multitasking responsibilities whereby statistics had shown increasing number of women in labour force¹. Multiple roles commit by women had given impact on the organisations. As had been proven in this study that those who were taking care of elderly is one of the risk factors for job absenteeism. This finding is in conjunction with similar study setting showing that extra responsibilities will be had effects on job performance that can lead to job absenteeism²⁶. According to survey done by the American Association of Retired Person (AARP) 2009, around 17 percent of workers had taking leave in view of taking care of elderly. Aging population will become world phenomena in the future. The responsibility to take care of them is needed to maintain their health and wellbeing. Therefore, the finding in this study is alarming because job absenteeism among nurses will affect the work process in hospital setting.

Furthermore, the current economic condition and modernisation nowadays is the push factor for women to go to work. Assistance is usually needed to take care of children at home while working. This had been proved by this study showing significant protective factors of having helper at home. This finding supported by study done in Oklahoma stated that each respondent that had to take care of their own child without helper had around 20 days of absent due to child related illness⁹. However, there was study done in 2011 in Erasmus showed different findings²⁶. This is due to most of their partners were available to handle and taking care of family. Therefore, the respondents would not have other responsibilities apart from fulfilling working requirement.

Furthermore, this study showed that there is no association between WFC and job absenteeism. Other studies had shown presence of intermediate factors for example stress or depression together with WFC thus lead to job absenteeism²¹. Therefore, in the presence of conflict alone it will not necessary to give effects towards job absenteeism. Therefore, for a person to fit in a job, good mental health plays an important role in building up person coping mechanism as gated for them to stay strong for handling difficult job task.

Finally, this study showed that being married is not the risk factors for being absent. This finding contradictory with finding of most of the study. Study done in Nigeria among healthcare workers, showing that being married is one of the contributions of being absent and most of them due to conflict within family²⁷. Other studies among Swedish nurse reported the outcome of long-term absence among married nurse²⁸. The finding in this study as such is because most of the respondents were married (91%) and it is not comparable with those single or divorce.

Limitation

Our study contains several limitations that must be addressed. First, this study was carried out within short period of time that influences the number of sample size. Subsequently, the minimal subset of sample size obtained are not generalizable to whole nursing population. On the other hand, this study does not include the work attitude and work environment of the employee that might be the factors of high prevalence of involuntary job absenteeism.

Recommendation for future research

The eye opener for this research is on the finding whereby employee that had other responsibilities at home especially those who take care of elderly and those with dependent child at home should need extra attention from the supervisor. Future study should target a larger sample size and involve multiple hospitals. It is also recommended that future researchers conducted a longitudinal or qualitative study to identify the possible factors throughout time. Subsequently, moderating roles of supervisor support, should be sought out for future research for better intervention strategies.

CONCLUSIONS

Prevalence of involuntary job absenteeism among nurses in teaching hospital found in this study was higher compared to the findings of previous studies, and majority of the absenteeism was due to emergency leaves. Taking care of elderly and no help obtained for taking care of child are the risk factors for involuntary job absenteeism. The predictors of involuntary job absenteeism need further attention and support from the employer to prevent further job absenteeism among nurses.

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ETHICAL CONSIDERATION

All respondents were informed on the purpose of study and informed consent were obtained before participating in this study. This study was approved by Medical Ethics Board UKM (FF-2017-355).

CONFLICT OF INTEREST

The authors declare that they have no conflict of interest.

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