

Nurses' Intention to Leave: Do Demographic Factors Matter?

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Abstract

Many factors are found to contribute to nurses' intention to leave and past studies revealed that the factors could be individual, organizational, environmental as well as demographic factors. However, this study focused on examining the effect of demographic factors on intention to leave among nurses in Malaysian public hospitals. The study employed a quantitative research design whereby 700 questionnaires were distributed to 11 selected hospitals and those hospitals are considered major public hospitals in Peninsular Malaysia. There were 436 questionnaires returned but only 398 were usable. The data was analyzed using SPSS software. The results of estimating ANOVA revealed that only income and organizational tenure show significant differences on nurses' intention to leave. In other words, this study also revealed that nurses who are serving in public hospitals in Malaysia perceived that age, marital status and education level are not significant contributors to their intention to leave the organization.

Keywords: nurses, intention to leave, Malaysian public hospitals, demographic factors

1. Introduction

For many organizations, no matter what industry they are in, turnover is a major concern since it can be expensive in relation to recruiting, hiring, and training as well as the cost of lost productivity.

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Losing an employee, especially skilled and talented one, would also mean the loss of intellectual capital since if somebody leaves, it takes years before the replacement can achieve the same level or speed as the previous employee.

2. Literature review

Literature revealed that one of the professions that is critical today all over the world is the nursing profession because of high rate of turnover. Many studies disclosed the worry of the nursing shortage, and vacancies in nursing are reported in most countries of the world (Zurn, Dolea&Stiwel, 2005), with turnover being identified as a main contributor to the shortage of nurses (Cohen &Golen, 2007; Ramoo, Abdullah &Chua, 2013). It is even worse when many nurses, especially from developing countries, migrate or leave their home countries to serve developed countries (Yeawood, 2007; Zurn et al., 2005). Malaysia, similar to other developing countries, is facing a nursing shortage and employee turnover in this profession is really a matter of concern (Ramoo et al., 2013). The reasons behind this phenomenon are aging nursing workforce, an increase in medical facilities and overseas employment opportunities. Thus, to prevent or minimize nurses' turnover, information that can predict their leaving is very crucial and one of the ways to predict their leaving is through measuring their intention to leave.

2.1 Intention to Leave

Previous research consistently found that actual turnover and intention to leave are often correlated (Castle, Engberg, Anderson &Aiju Men, 2007). In fact, some studies on turnover have demonstrated that turnover intention is the best predictor of voluntary turnover (Price, 2001) and turnover intention is believed to be the strongest precursor of turnover (Allen, Weeks & Moffitt, 2005). Becauseintention to leave has been said to be the best predictor and the strongest precursor of turnover and for that reason, researchers often use intention to leave as a proxy for turnover (Castle et al., 2007). Past literature also suggests that majority agreed that intention to leave is an indicator that an employee is drawing psychologically from the organization and work. In this study, intention to leave is employed as the dependent variable since research results suggest that intention to leave eventually leads to actual turnover (Mobley, Horner &Hollingswoorth, 1978).

Past studies have shown that various factors can contribute to intention to leave among employees including individual or personal factors, organizational factors, job related factors and environmental factors. However, this paper focused on investigating whether or not demographic factors contribute to nurses' intention to leave.

2.2 Demographic Factors and Intention to Leave

Demographic factors like age, gender, marital status, job tenure and education level have also been found to explain a unique variation on intention to leave. However, the literature on the influence of demographic factors has highlighted a number of conflicting findings. Some of the results were neither consistent nor conclusive (Chan & Morrison, 2000). This might be due to the reasons that turnover among nurses may be individualized and unique with regard to setting whereby a particular setting possesses its own culture and practice. For example, some prior findings revealed a consistent negative relationship between age, tenure and turnover intention, but mixed results between gender, education level and turnover intention (Chou, Chi, Chieh & Ching, 2005).

2.3 Research Objective and Hypotheses

The objective of this study was to investigate whether or not demographic factors such as age, tenure, education level, income level and marital status explain a unique variation on intention to leave. Therefore, the hypotheses of the study were:

H1: Demographic factors explain a unique variation on intention to leave among Malaysian public hospital nurses.

H1a: Age explains a unique variation on intention to leave among Malaysian public hospital nurses.

H1b: Marital status explains a unique variation on intention to leave among Malaysian public hospital nurses.

H1c: Education level explains a unique variation on intention to leave among Malaysian public hospital nurses.

H1d: Income explains a unique variation on intention to leave among Malaysian public hospital nurses.

H1e: Organizational tenure explains a unique variation on intention to leave among Malaysian public hospital nurses.

3. Methodology

This research is a quantitative research which used survey or questionnaires as a means to gather information. Polit et al. (2001) claimed that survey is an efficient method to collect data from a large number of respondents (Andrews, 2003). This survey method was also chosen for other reasons; for example cost savings, question form and also the duration of data collection. In addition, a survey questionnaire also allows ample time for respondents to think and decide on the answer themselves.

The survey questions of this study were divided into two sections. Section A required the respondents to supply information about their age, marital status, race, education level, income level, position (post), company tenure, job tenure, and whether or not they have been promoted in the past five years. Section B provided the respondents with 12 questions on intention to leave by Hinshaw & Atwood (1984).

3.1 Sampling Method

This study used proportionate stratified random sampling, which involves dividing the population into homogeneous subgroups and then taking a simple random sample in each subgroup. The use of this stratified random sampling was decided upon in order to reduce the potential bias as well as to ensure that the sample would reflect the general population. The main reason for choosing stratified random sampling to be used in this study was because in Malaysia nurses are categorized into five main groups which are matron, sister, staff nurse, community nurse and assistant nurses. Therefore, using proportionate stratified random sampling was preferred because it was believed to be able to represent the subgroups of the population but also the overall population under study.

3.2 Sample and Sample Size

In 2011, the number of nurses in Malaysia was about 93,000 and 74% of them were registered nurses (Fathilah, 2011). As cited by Sekaran, Isaac and Michael (1981) suggested that for a population size of $N=75,000$, the sample size is 382. However, for this study, 700 questionnaires were decided to be delivered to 11 selected hospitals in Peninsular Malaysia.

3.3 Data Collection Process

Before distributing the questionnaires to the selected hospitals, the ethical approval was first obtained from University Utara Malaysia (UUM). However, since the respondents of this study involved nurses working at public hospitals in Peninsular Malaysia, approval from the Malaysian Ministry of Health and approval from a few other important related institutions such as Malaysian Research Ethical Committee (MREC), National Institutes of Health (NIH) and hospitals must also be obtained prior to distributing questionnaires (Omar, 2012). The questionnaires were delivered to the selected hospitals upon obtaining the approval from those related bodies.

4. Findings and Discussion

4.1 Sample Profiles

The respondents were nurses working in major public hospitals located in Peninsular Malaysia or specifically from Johor, Melaka, Selangor, Kuala Lumpur, Perak, Kedah, Perlis, Kelantan, Terengganu and Pahang. Out of 700 questionnaires distributed to 11 major public hospitals in Peninsular Malaysia, 436 responses were returned which then gave a 62.3% overall response rate. However, only 398 responses were usable. From those 398 respondents, 395 respondents or 99.2% were females and only 3 respondents or 0.8% were males. Based on race, 360 respondents or 90.5% were Malay, 18 respondents or 4.5% were Chinese, 18 respondents or 4.5% were Indians and 2 respondents or 0.5% were others. It was also found that 349 respondents or 87.7% were married, 38 respondents or 9.5% were single or bachelor and 11 respondents or 2.8% were in the category of divorced, separated or widowed.

4.2 Testing the Hypotheses

The results of estimating ANOVA (F test) were obtained after having done tests of between-subject effects as shown in Table 1.

Table 1: The results of estimated ANOVA

Demographic Variables	F	P
Age	1.372	0.225
Marital Status	0.592	0.554
Education Level	1.272	0.28
Income	3.218	0.013*
Tenure Organization	2.229	0.040*

* Significant at 0,05 significance level

The analysis of the variation on intention to leave in Table 1 indicates the f value and p value for age is 1.372 and 0.225 respectively. Because the p value $>$ 0.05, there are no significant differences on intention to leave among the seven levels of nurses' age. It can be concluded that age does not explain a unique variation on intention to leave. The results supported the findings by Khatri et al. (1999) in that age was found to be unimportant in predicting employee turnover in Singapore. In Malaysia, Zulkepli (1997) in his study also found that age was not significant in relation to intention to leave. Meanwhile, Stagnitti et al. (2006) found that age was significant. They found that older health professionals were more likely to stay in their position compared to the younger ones. Some other studies in different countries like Germany, Saudi Arabia, Taiwan and Sweden also reported that younger nurses were more likely to leave their organizations (Almalki, FitzGerald & Clark, 2012; Fochsen, Josephson, Hagberg, Toomingas & Lagerstrom, 2006; Jiunn-Horng, Hsing-Yi, Hsiu-Yueh & Hung-Da, 2007; Simon, Muller & Hasselhorn, 2010). The research suggests that findings regarding age differences and their influence on intention to leave have been inconclusive.

The analysis of the variation on intention to leave in Table 1 also indicates the f value and p value for marital status are 0.592 and 0.554. Because the p value is less than 0.05, there are no significant differences on intention to leave among the three groups of nurses' marital status. Thus, the results reveal that marital status does not explain a unique variation on intention to leave. The findings support past findings, which demonstrated that there was no significant difference between married and single employees in relation to intention to leave (Can & Morrison, 2000).

In contrast, McCarthy, Tyrrell and Lehane (2007) found that marital status is significant in determining employees' intention to leave in that nurses who had no kinship responsibilities are more likely to leave than nurses who had such responsibilities. They further stated that almost 60% of nurses who had expressed their intention to leave are single. In another study, Lee (2012) also found that married women had higher turnover rates.

Referring to Table 1 still, as for education level, it indicates the f value of 1.272 and the p value of 0.280. Thus it shows that there are no significant differences on intention to leave among the five levels of nurses' education background. The results are similar to Khatri et al., (1999) and Zulkepli (1997) who claimed that education level was not significant in relation to intention to leave. Contradictory, Souza-Poza et al. (2002) claimed that the level of education was significant.

As for income, Table 1 indicates the f value of 3.218 and the p value of 0.013. Since the p value is less than 0.05, there are significant differences on intention to leave among the five levels of nurses' income. In other words, income successfully explains a unique variation on intention to leave. It reveals that different levels of income would make a difference in the result of intention to leave. The results of the estimated marginal means on intention to leave for each level of income in details can be seen in Table 2.

Table 2 : Estimated marginal means for income level

Income	Estimated Marginal Mean
RM 1500 and lower	2.15
RM 1501 – RM 2500	2.236
RM 2501 – RM 3500	2.037
RM 3501 – RM 4500	1.936
RM 4500 and above	1.946

The estimated marginal means on intention to leave, as shown in Table 2, indicates that the RM1501 – RM 2500 income group shows the highest mean, which also indicates the highest feeling of intention to leave.

Meanwhile the RM3501 – RM4500 income group shows the lowest mean which also indicates the lowest feeling of intention to leave. The results clearly support that income level is significant in determining one's intention to leave.

The result is as predicted since most literature argues that pay is related to intention to leave (Chan et al., 2000; Zurn et al., 2005). This is further supported by Khatri et al. in their study done in Singapore in 1999 which indicated that level of income influenced turnover intention negatively. The analysis of the variation on intention to leave in Table 1 obtained the *f* value and *p* value for organizational tenure is 2.229 and 0.040 respectively. Because the *p* value is less than 0.05, there are significant differences on intention to leave among the seven levels of tenure with organization. In other words, organizational tenure explains unique variation on intention to leave.

Table 3 : Results of estimated marginal means for organizational tenure

Tenure with Organization	Estimated Marginal Mean
Less than 1 year	2.099
1 – 3 years	2.074
4 – 6 years	1.974
7 – 9 years	2.004
10 – 12 years	1.945
13 – 15 years	2.302
More than 15 years	2.029

Based on the estimated marginal mean showed in Table 3, it indicates that 13 – 15 years tenure with the organization group shows the highest mean, which also depicts the highest intention to leave feeling. While the group with 10 – 12 years tenure with the organization shows the lowest mean which also depicts the least intention to leave feeling. The results of the post hoc test indicate that there are significant mean differences on intention to leave between 13 – 15 years tenure with the organization group and six other groups. The results support the findings by McCarthy, Tyrrell and Lehane (2007); they found that many experienced nurses in the Republic of Ireland were planning to leave.

5. Conclusion

In general, it can be concluded that the results of estimating ANOVA in this study show that only income and organizational tenure show significant differences on intention to leave among nurses in Malaysian public hospitals. While age, marital status, educational level and tenure based on position show no significant difference; thus they are not related to intention to leave.

The results of the study not only fulfilled the objectives but also filled the research gap. This study presented some findings in the Malaysian context that provides some further useful explanation for health service policy-makers and planners alike; in that they can analyze and predict or even prepare some intervention strategies and ultimately reduce the turnover intention among nurses working in public hospitals in Malaysia. The results suggest that employers should not neglect 'how much to pay' and 'how long an employee has been with the organization' in order to improve nurses' retention.

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