

# ORGANIZATIONAL COMMITMENT AND INTENTION TO LEAVE AMONG NURSES: THE MEDIATING ROLE OF MORAL OBLIGATION

KHATIJAH OMAR  
MARHANA MOHAMED ANUAR  
*Faculty of Management and Economics  
Universiti Malaysia Terengganu*

ABDUL HALIM ABDUL MAJID  
HUSNA JOHARI  
*UUM College of Business  
Universiti Utara Malaysia*

## Abstract

*In today's fast-paced economic competition, committed and loyal employees are important for the profit-oriented organizations to gain and sustain their competitiveness. Even for non-profit-oriented organizations like hospitals and universities, these committed and loyal employees will lead to better quality service and improved organizational performance. Thus, it is vital for the organizations to sustain employees' commitment because once the employees' commitments decrease, it would be difficult for organizations to retain their employees. This study investigated the relationship between organizational commitment and intention to leave among nurses in Malaysian public hospitals, and determined the role of moral obligation as a mediator on the relationship between organizational commitment and intention to leave. The study focused on permanent nurses working in public hospitals in Peninsular Malaysia. The results supported that organizational commitment was significantly and negatively related to intention to leave. The macro results also showed that moral obligation was a mediator in the relationships between organizational commitment and the intention to leave. The results were crucial to be looked into so that management and employers could have ample understanding and guidelines if they were to draft retention strategies. Even though many studies had been conducted on the intention to leave, most of them were conducted in developed countries and this study is believed to enhance the literature gap since it has an emphasis in the Malaysian context.*

**Keywords:** *Intention to leave, organizational commitment, moral obligation.*

## Introduction

There have been abundant studies on intention to leave. However, at a time when nursing shortage has become a global issue (Buchan & Calman, 2004) and a serious problem in the vast majority of post-industrialized countries (Galletta, Portoghese & Battistelli, 2011), the issue seems to be relevant and still needs special attention. In many developing countries, the situation is worsening as many trained nurses hop over to the private sector or leave their own countries to serve in developed countries due to better salaries and benefits. The issue of nursing shortage in most parts of the world, having high turnover rate and losing a number of nurses to the private sector and foreign countries also suggests that, instead of looking at the workers' turnover itself, it is better for the organization to detect the feeling of intent to leave among their employees so that retention strategies could be drafted and implemented. The turnover rate itself could thus possibly be minimized.

The shortage of nurses has become a critical issue all over the world (Elsevier Foundation, 2010; Khaliq, Broyle & Mwachofi, 2009; Brush, 2008; Yearwood, 2007). The situation is worsening, especially in poor-resource countries (Elsevier Foundation, 2010; Pillay, 2007; Yearwood, 2007) where by many trained nurses hop over to the private sector or leave their own countries to serve in foreign countries due to better offers and benefits. To mitigate the problem of employees' turnover in the nursing field, some researchers suggested that it was better for employers to examine nurses' intention to leave instead of studying turnover itself.

As revealed by literature, there are many reasons that contributed to workers' intention to leave. However, this paper would only focus on one of the most prominent variables - organizational commitment and its relationship with intention to leave (Kumar & Koh, 2011; Tatcher, Stepina & Boyle, 2003; Yamada, 2002). This study would also investigate the role of moral obligation as a mediating variable in the relationship between organizational commitment and intention to leave. Even though there have been many researches that relate organizational commitment and intention to leave, this paper offers a new perspective for it discusses the relationship between organizational commitment and intention to leave specifically among nurses in public hospitals in the Malaysian context.

## Overview

In studying turnover and shortage in certain professions, recent decades have witnessed an increasing interest in understanding why employees leave (Van der Heijden, Van Dam & Hasselhorn, 2007). However, knowing the reasons for leaving is too late to stop the actual leaving and detecting the presence of intention to leave feeling is said to be better in supporting the effort to prevent or minimize employees' leaving. In fact, voluntary turnover is said to be best predicted by the employees' intention to leave (Price, 2001). Thus, further understanding and investigation of the existence of the intention to leave feeling is crucial. In other words, it is much more important to scrutinize the factors that make them intend to leave their organization.

It is important to know the signals to turnover by studying the employees' intention to leave so that necessary preparations and preventive actions can be taken. Consequently, this study proceeds with the aim to examine the relationship between organizational commitment and the intention to leave among Malaysian public hospital nurses and at the same time, this study will also investigate the role played by moral obligation as a mediating variable.

### **Intention to Leave**

Turnover and intention to leave are two different concepts. Intention to leave involves an individual's perception towards leaving while turnover involves the act of an individual actually leaving the organization or profession (Hinshaw & Atwood, 1984). An employee is said to have the intention to leave when he or she has serious consideration to leave his or her current job (Castle, 2007).

Many studies on intention to leave have been conducted to examine the intention to leave and the factors relating to intention to leave in various fields. Many researchers have attempted to answer the questions of what really determines the employees' intention to leave by investigating possible antecedents of the employees' intention to leave. However, there is no standard reason why employees leave an organization or profession (Ongori, 2007) and there has been little consistency in the findings to the question of what really determines the employees' intention to leave.

## **Organizational Commitment and Intention to Leave**

Organizational commitment is said to be an important variable in the discussion of intention to leave since it is a popular belief that the more committed the employee is, the more likely he or she will stay loyal to the organization. In other words, it is less likely that he or she will leave for another job or organization. The statement is supported by the study of Slattery and Selvarajan (2005). In their study, they found that organizational commitment is negatively associated with turnover intention.

Results of some other studies also showed that more committed employees would be less likely to leave an organization (Nogueras, 2006; Simmons, 2005; Larkey et al., 1995). This is also supported by some local researchers (Ishak Ismail, 2006; Zulkifli Kassim, 1997; Mohd Fikri, 1997) who found that the higher the degree of commitment among employees, the less likely they would express the intention to leave. In fact, organizational commitment is found to be critical (Khatri et al., 2001) and has a negative correlation with turnover intention (Rahman, Naqvi & Ramay, 2008).

The literature review shows that studies on organizational commitment have increased and are continuously gaining importance among researchers all over the world. This is because more and more organizations realize that human resources are their most valuable assets and having loyal and committed employees can ensure that they stay competitive and survive. In fact, some researchers (Colakoglu, Culha & Atay, 2010; Meyer & Allen, 2004) claimed that employees who have higher emotional attachment which is one of the measures for affective commitment to their organization, show better performance and contribute more meaningfully than those with lower emotional attachment. This kind of employees will also enhance the organizational competitiveness and guarantee the survival of the organizations (Ongori, 2007). In short, it is a valuable bonus for the company to have employees with a high level of organizational commitment. These highly-committed employees would feel that they owe so much to the organization and in return, they would give full support, effort and cooperation to the organization and would be less likely to leave.

## **Moral Obligation**

There are limited references or past research that really discussed or focused on moral obligation as one of the variables in the study

of intention to leave. Prestholdt et al. (1987), Sharkey (1994) and Lane, Mathews and Prestholdt (1990) have contributed to the understanding of the role that moral obligation plays in examining the intention to leave. However, the relevance of moral obligation in predicting intention depends very much on the type of behaviour, profession and the sample being studied (Sharkey, 1994). In nursing, moral obligation and work responsibilities are assumed to be the two dimensions that complement each other (Cronqvist et al, 2004). Yearwood (2007) also seemed to agree that moral obligation could provide a basis to tackle the problem of internal as well as external nurse migration.

### **Problem Statement**

Proper staffing and a stable nursing workforce will ensure the quality of nursing care received by patients and the quality of the healthcare system. Thus, having a sufficient number of nurses is important. However, many articles and journals have discussed the nursing shortage, which has become a global issue. The existing and predicted national and global shortage of nurses would surely bring negative impact on society's health-care needs. The shortage at the national and international levels is exacerbated when nurses, especially from the public sector, are lured by offers from private hospitals or even foreign hospitals (Ministry of Health, 2008; Missouri State Nursing Board, 2008).

### **Research Objectives**

The objectives of this study are:

1. To investigate the relationship between organizational commitment and intention to leave among nurses in Malaysian public hospitals.
2. To determine the role of moral obligation as a mediator on the relationship between organizational commitment and intention to leave.

### **Hypotheses**

Based on literature research, this study hypothesizes that:

- H1: Organizational commitment is negatively related to intention to leave.

- H1a: Affective commitment is negatively related to intention to leave.
- H1b: Normative commitment is negatively related to intention to leave.
- H1c: Continuance commitment is negatively related to intention to leave.
- H2: Moral Obligation mediates the relationship between Organizational Commitment and Intention to Leave among Malaysian public hospital nurses.
- H2a: Moral Obligation mediates the relationship between affective commitment and intention to leave among Malaysian public hospital nurses.
- H2b: Moral Obligation mediates the relationship between normative commitment and intention to leave among Malaysian public hospital nurses.
- H2c: Moral Obligation mediates the relationship between continuance commitment and intention to leave among Malaysian public hospital nurses.

## **Methodology**

This quantitative research involves the use of a questionnaire in collecting the primary data. Most of the questions used in the survey were based on established existing instruments with some alterations and modifications to the original questions made to suit the study due to cultural factors and practice. The questions used in this study applied the multi-item approach where a few questions were asked under one particular variable. The questions were grouped under four major sections. Section A measured respondents' level of organizational commitment, section B measured moral obligation, section C measured the respondents' intention to leave and Section D required the respondents to provide their demographic data.

The survey used was a self-administered survey and 700 sets of these self-administered questionnaires were sent to selected major hospitals in Peninsular Malaysia. Prior to that, the ethical approval for the study and its method was first obtained. Since this study involved nurses working at public hospitals as respondents, permission and approval were obtained from the Malaysian Ministry of Health and a few other important related institutions such as the Malaysian Research Ethical Committee (MREC), the National Institute of Health (NIH) and the respective hospitals.

## Population, Sample and Sample Size

Nurses who were working permanently in public hospitals were the population sample of this study. They were chosen as the sample since this group of workers was said to be more likely to opt for offers from private health institutions (News Straits Times, 2007) or even accept offers to serve overseas (Ministry of Health, 2004, Missouri State Nursing Board, 2008).

This study made use of the systematic 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. Since in Malaysia nurses are categorized into five main groups - matrons, sisters, staff nurses, community nurses and assistant nurses, using the proportionate stratified random sampling was preferred so that the sample would be able to represent not only the overall population, but also the subgroups of the population.

As of March 2008, there were about 75,000 active nurses in Malaysia (Ministry of Health, 2008). According to Sekaran (2003) if the size of the population is 75,000, the sample size (S), should be 382. However, 700 sets of questionnaires were delivered to the selected hospitals, considering that the response rate would not be 100 per cent.

## Measurements

The existing instruments with established reliability and validity were used to measure the variables involved in this study. To measure organizational commitment of the respondents, the revised scale of TCM (Three-Component Model Employee Commitment Survey) developed by Meyer, Allen and Smith (1993) was used. These scales measure the three types of organizational commitment of the respondents: affective commitment, continuance commitment and normative commitment. There were six statements for each scale (18 questions altogether) and employees indicated the strength of their agreement by selecting a number ranging from 1 (strongly disagree) to 7 (strongly agree). Affective commitment was measured by Questions 1 to 6. Under this affective commitment scale, three (3) questions were positively worded and three (3) questions were

negatively worded. Continuance commitment was measured by Questions 7 to 12 and under this continuance commitment scale, all questions were positively worded. Normative commitment was measured by Questions 13 to 18. Under this normative commitment scale, five (5) questions were positively worded and only one (1) was negatively worded.

To indicate whether an employee was committed or not towards their organization, the mean was used as the benchmark. Scores that are lower than the mean indicate low or no commitment and scores that are higher than the mean indicate good or higher commitment.

To measure moral obligation, two questions were adopted from Prestholdt et al. (1987) with two additional questions added. Two questions were added to this instrument because the original instrument only contained two items and its Cronbach's Alpha was only 0.45 which was below the minimum acceptable value. Thus, attempts were made to increase the number of items and at the same time increase the value of Cronbach's Alpha of the instrument. Those two additional items went through the proper process of item development and both of them fulfilled both the construct and the content validity. The addition of the two questions increased Cronbach's Alpha to 0.51. Nunally (1967) and Smith and Glass (1987) claimed that 0.50 is still an acceptable value for a reliability test. All the questions used were rated on a seven-point scale (Likert Scale) ranging from 1 (strongly disagree) to 7 (strongly agree). Scores that are lower than the mean indicate low or no moral obligation feeling among the respondents and scores that are higher than the mean indicate good or higher feeling of moral obligation.

The Anticipated Turnover Scale (ATS) which was developed by Hinshaw and Atwood (1984) was used to measure the respondents' intention to leave. This self-report Anticipated Turnover Scales (ATS) instrument contained twelve items relating to the respondents' anticipated length of time to leave and their certainty of leaving their jobs. However, the word 'position' in the questions was changed to 'organization' since this study intended to measure nurses' intention to leave the organization, not their profession.

The internal consistency reliability was 0.84 for the scale. Furthermore, this ATS instrument has been used repeatedly and successfully (Miller, 2007) in the study of intention to leave. All the questions

used were rated on a seven-point scale (Likert Scale) ranging from 1 (strongly disagree) to 7 (strongly agree). The score is the simple sum of all the items in the scale divided by the number of items in the total scale. To indicate whether an employee is experiencing the feeling of leaving his/her organization, the mean was used to determine the existence of the intention to leave of the employee. Respondents with scores above the mean would be considered as having the intention to leave while those whose scores fall below the mean would not be considered as having the intention to leave.

### **Data Analysis**

For data analysis, the responses were keyed into SPSS and analyzed using descriptive statistics such as frequency distribution, mean and standard deviation to show trends in the data. Correlation analysis and hypothesis testing were then conducted by applying SPSS Pearson Correlation and SPSS macro which was provided by Preacher and Hayes (2004).

### **Validity and Reliability**

Principal Components Analysis (PCA) factor loadings show whether items are actually measuring what they should measure. Items with larger factor loadings provide better measures of the underlying property than do items with smaller factor loadings. As suggested by Hair (1998), loadings are considered significant if they are  $\pm 0.50$  or greater (Manning & Munro, 2004). The questions used in this study were considered valid since all the questions fell under their respective dimensions. As for reliability, if the variable has an internal consistency reliability (Cronbach's Alpha) of at least 0.60 (Nunally, 1978) or 0.50 (Smith & Glass, 1987) the measurement is sufficient and reliable for research purposes. The Cronbach's Alpha for all dimensions in this study were all well above 0.50.

## **Findings and Discussion**

436 questionnaires returned, out of the 700 distributed, which gave a 62.3% overall response rate. However, only 398 questionnaires were usable. The respondents' demographic characteristics are shown in Table 1.

Table 1

*Respondents' Profiles*

Demographic Characteristics		Frequency	Percentage (%)
Gender	Male	3	0.8
	Female	395	99.2
Age	Below 25 years	32	8
	26 – 30 years	87	21.90
	31 – 35 years	68	17.10
	36 – 40 years	66	16.60
	41 – 45 years	29	7.30
	46 – 50 years	39	9.80
	More than 50 years	77	19.30
Race	Malay	360	90.50
	Chinese	18	4.50
	Indian	18	4.50
	Others	2	0.50
Marital Status	Married	349	87.70
	Unmarried	38	9.50
	Divorced, Separated, Widowed	11	2.80
Level of Education	MCE/HSC	89	22.40
	Certificate	38	9.50
	Diploma	258	63.60
	Degree	16	4
	Master's	2	0.50
Level of Income	Less than RM 1500	18	4.50
	RM1501 – RM 2500	167	42
	RM2501 – RM 3500	161	40.5
	RM3501 – RM 4500	43	10.80
	Above RM 4500	9	2.30
Organizational Tenure	Less than 1 year	78	19.60
	1 – 3 years	86	21.60
	4 – 6 years	70	17.60
	7 – 9 years	37	9.30
	10 – 12 years	40	10.10
	13 – 15 years	42	10.60
	More than 15 years	45	11.30

n=398

Table 2

*Results of Estimating the Direct Effect of Organizational Commitment on Intention to Leave*

Independent Variable	Coefficient	se	p
Total/Overall organizational commitment	-0.137	0.0666	0.040*
Affective commitment	-0.208	0.0530	0.000*
Continuance commitment	0.068	0.0436	0.120
Normative commitment	-0.012	0.0487	0.804

\* Significant at 0.05 significance level

Table 2 depicts that the direct effect coefficient for organizational commitment on intention to leave which is about 0.137 (negative) and p value is 0.040. The figures (coefficient value was negative and p value < 0.05) clearly show that organizational commitment has a significantly negative relationship with intention to leave. Thus, the results supported Hypothesis 1 (organizational commitment is negatively related to intention to leave). The result is also consistent with many previous results (eg: Rahman, Naqvi & Ramay, 2008; Labatmediene et al., 2007; Slattery & Selvarajan, 2005; Nogueras, 2006; Angle & Pery, 1981). Blin et al. (1991) also found a significant relationship between organizational commitment and intention to leave. With those arguments and statistical findings, it is confirmed that organizational commitment has a significant negative relationship with the intention to leave feeling among nurses who are working in public hospitals in this country.

The results for estimating the direct effect for all the three dimensions of organizational commitment (affective commitment, continuance commitment and normative commitment) found that only one dimension of organizational commitment has a significantly negative relationship with intention to leave which is affective commitment. Normative commitment also shows a negative relationship with intention to leave but is not significant (coefficient = -0.0121,  $t = -0.249$ ,  $p = 0.804$ ). The continuance dimension shows a positive relationship with intention to leave, even though it is not significant ( $t = 1.557$ ,  $p > 0.05$ ). The results supported hypothesis H1b; however they did not support H1a and H1c.

Table 3 depicts the results of estimating the indirect effect of organizational commitment (total/overall and dimensions of organizational commitment) on intention to leave through moral obligation as a mediator. The

table shows that the indirect effect coefficient for total/overall organizational commitment on intention to leave through moral obligation is 0.192 (negative). Testing the significance indicates that the true indirect effect was estimated to lie between -0.289 and -0.124 with 95% confidence interval. Because zero is not in the 95% confidence intervals, it then is concluded that the indirect effect is significant at  $p < 0.05$ . Thus, moral obligation is a mediator for the relationship between organizational commitment and intention to leave.

Table 3

*Results of Estimating the Indirect Effect and Bootstrapping 95% Confidence Interval (CI) of Organizational Commitment*

Independent Variables	Coefficient	95% CI	
		LL	UL
Total/Overall organizational commitment	-0.192*	-0.289	-0.124
Affective commitment	-0.076*	-0.13	-0.03
Continuance commitment	0.024	-0.011	0.072
Normative commitment	-0.131*	-0.187	-0.091

*Note.* CI=confidence interval; LL= lower limit; UL=upper limit. \*Significant at 0.05 significance level.

The results of estimating the indirect effect of the three dimensions of organizational commitment, found that the relationship of two dimensions of organizational commitment - affective commitment and normative commitment - with intention to leave was mediated by moral obligation. Meanwhile, continuance commitment was found to be not mediated by moral obligation. Thus, the results supported H2a and H2c but did not support H2b.

## Conclusion

The results of the analysis show that organizational commitment is significantly and inversely related to intention to leave while the macro results show that moral obligation is only a partial mediator in the relationship between organizational commitment and intention to leave. The results of the study have not only fulfilled the objectives but have also filled the research gap, especially with respect to moral obligation as a mediating variable in the study. In fact, the

inclusion of moral obligation as a mediating variable in examining the relationship between organizational commitment and turnover intention is considered a contribution of this study.

The findings of the study regarding organizational commitment mirrored the previous findings in that it revealed a negative relationship with intention to leave. The findings also suggest that the effects of moral obligation as a mediating variable in the relationship between organizational commitment and intention to leave among nurses who work in Malaysian public hospitals is a crucial consideration enabling management and employers attain ample understanding and guidelines to draft the retention strategies.

## References

- Angle, H. L., & Perry, J. L. (1981). Organizational commitment and organizational effectiveness: An empirical assessment. *Administrative Science Quarterly*, 26, 1–13.
- Banu Nagaindran. (2006). *Job satisfaction and organizational commitment as determinants of intention to leave* (Unpublished doctoral dissertations). Universiti Utara Malaysia.
- Blaum, P. (2002). *Worldwide nursing shortage has reached crisis proportions*. Public Release, Penn State.
- Bline, D. M., Duchon, D., & Meixner, W. (1991). The measurement of organizational commitment and professional commitment: An examination of the psychometric properties of two commonly used instruments. *Behavior Research in Accounting*, 3, 1–12.
- Brush, B. L. (2008). Global nurse migration today. *Journal of Nursing Scholarship*, 40(1), 20–25.
- Buchan, J., & Calman, L. (2004). The global shortage of registered nurses: An overview of issues and actions. *International Council of Nurses (ICN)*, 3.
- Castle, N. G., Engberg, J., Anderson, R., & Aiju Men, (2007). Job satisfaction of nurse aides in nursing homes: Intent to leave and turnover. *The Gerontologist*, 47(2), 193–204.
- Colakoglu, U., Culha, O., & Atay, H. (2010). The effects of perceived organizational support. *Tourism and Hospitality Management*, 16(2), 125–150.
- Cronqvist, A., Theorell, T., Burns, T., & Lutzen, K. (2004). Caring about–caring for: Moral obligations and work responsibilities in intensive care nursing. *Nursing Ethics*, 11(1), 63–76.

- Elsevier Foundation. (2010). *International summit seeks solutions to global shortage of nursing faculty*. International Council of Nurses and the Honor Society of Nursing, Sigma Theta Tau International.
- Galletta, M. P., & Battistelli, A. (2011). Intrinsic motivation, job autonomy and turnover intention in the Italian healthcare: The mediating role of affective commitment. *Journal of Management Research*, 3(2), E3.
- Harman, W. S., Blum, M., Stefani, J., & Taho, A. (2009). Albanian turnover: Is the job embeddedness construct predictive? *Institute of Behavioral and Applied Management*, 192–205.
- Hair, J. F. Jr., Anderson, R. E., Tatham, R. L., & Black, W. C. (1998). *Multivariate data analysis* (5th ed.). NJ: Prentice Hall International.
- Hinshaw, A. S., & Atwood, J. R. (1984). *Anticipated Turnover Scales*. Retrieved from <http://www.j.atwood@worldnet.att.net>
- Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. *Communication Monographs*, 76(4), 408–420.
- Ishak Ismail. (2006). *Hubungan antara kepuasan kerja dan komitmen organisasi dan niat berhenti kerja* (Unpublished doctoral dissertations). Universiti Utara Malaysia
- Khalik, A. A., Broyles, R. W., & Mwachofi, A. K. (2009). Global nurse migration: Its impact on developing countries and prospects for the future. *Canadian Journal of Nursing Leadership*, 22(1), 24–50.
- Khatri, N., & Fern, C. T. (2001). Explaining employee turnover in an Asian context. *Human Resource Management Journal*, 11(1), 54–74.
- Kumar, R., & Koh, G. E. (2011). Perceived organizational commitment and its impacts to the turnover intention: A correlation analysis. *Proceedings of international conference on management (ICM2011)*. Retrieved from <http://www.international.conference.com.my>
- Labatmediene, L., Endriuaityene, A., & Gustainiene, L. (2007). Individual correlates of organizational commitment and intention to leave the organization. *Baltic Journal of Management*, 2(2), 196–212.
- Lane, I. M., Mathews, R. C., & Prestholdt, P. H. (1990). Education background, marital status, moral obligation, and the nurses: Decision to resign from her hospital. *Journal of Applied Social Psychology*, 20, 1432–1443.
- Larkey, L., & Morrill, C. (1995). Organizational commitment as symbolic process. *Western Journal of Communication*, 59(3), 193–214.
- Malaysian Medical Association. (2007). Retrieved from <http://mma.org.my/mma/background>
- Malaysian Ministry of Health. (2007). *Advertisement for nurse position*. Retrieved from <http://www.moh.gov.my>

- Manning, M. L., & Munro, D. (2004). *The business survey researcher's SPSS Cookbook* (2nd ed.), Sydney: Pearson Education.
- Meyer, J. P., & Allen, N. J. (2004). *TCM employee commitment survey: Academic user guide 2004*. Department of Psychology University of Western Ontario.
- Meyer, J. P., & Allen, N. J. (1991). A three-component conceptualization of organizational commitment. *Human Resource Management Review*, 1, 61–89.
- Miller, P. E. (2007). *The relationship between job satisfaction and intention to leave: A study of hospice nurses in a for-profit corporation* (Unpublished doctoral dissertation). Capella University.
- Mohd Fikry Sutan Tahrudin. (1997). *Factors associated with intention to retire among the graduate teachers in Larut, Matang and Selama, District of Perak* (Unpublished doctoral dissertation). Universiti Utara Malaysia.
- Nogueras, D. J. (2006). Occupational commitment, education, and experience as a predictor of intention to leave the nursing profession. *Nursing Economics*, Mar/April 2006, 24(2), 86–93.
- Nunally, J. C. (1978), *Psychometric theory* (2nd ed.). New York: McGraw Hill.
- Ongori, H. (2007). A review of the literature on employee turnover. *African Journal of Business Management*, 49–54.
- Pool, S., & Pool, B. (2007). A management development model: Measuring organizational commitment and its impact on job satisfaction among executives in a learning organization. *Journal of Management Development*, 26(4), 353–369.
- Preacher, K. J., & Hayes, A. F. (2004). *SPSS and SAS procedures for estimating indirect.pdf*. Retrieved from <http://www.4shared.com>
- Prestholdt, P. H., Lane, I. M., & Mathews, R. C. (1987). Nurse turnover as reasoned action: Development of a process model. *Journal of Applied Psychology*, 72, 221–227.
- Price, J. L. (2001). Reflections on the determinants of voluntary turnover. *International Journal of Manpower*, 22(7), 600–624.
- Pillay, R. (2007). A conceptual framework for the strategic analysis and management of the brain drain of African health care professionals. *African Journal of Business Management*, 26–33.
- Rahman, A., Raqvi, S. M. M. R., & Ramay, M. I. (2008). Measuring turnover intention: A study of IT professionals in Pakistan. *International Review of Business Research Papers*, 4(3), 45–55.
- Sekaran, U. (2003). *Research methods for business: A skill building approach* (3rd ed.). New York: John Wiley & Sons.
- Sharkey, C. J. (1994). *Understanding turnover of nurses employed in long-term care: A test of two models* (Unpublished doctoral dissertation). Case Western Reserve University.

- Simmons, E. S. (2005). Predictors of organizational commitment among staff in assisted living. *The Gerontologist*, Apr 2005, 45(2), 196–205.
- Slattery, J. P., & Rajan Selvarajan, T. T. (2005). Antecedents to temporary employee's turnover intention. *Journal of Leadership & Organizational Studies*, 12(1), 66.
- Smith, M. L., & Glass, G. U. (1987). *Research and evaluation in education and the social sciences*. Eaglewood Cliffs: Prentice Hall.
- Thatcher, J. B., Stepina, L. P., & Boyle, R. J. (2003). Turnover of information technology workers: Examining empirically the influence of attitudes, job characteristics and external markets. *Journal of Management Information Systems*, 19(3), 231–261.
- Van der Heijden, B. I. J. M., Van Dam, K., Hasselhorn, H. M., & the NEXT study group. (2007). *Paper presented at the 22nd annual conference of the society of industrial and organizational psychology*. New York, USA.
- Yamada, Y., (2002). Factors contributing to job satisfaction and organizational commitment of direct care workers in home care. *The Gerontologist*, 42(1), 23–24.
- Yearwood, E. L. (2007). The crisis of nurse migration in developing countries. *Journal of Child and Adolescent Psychiatric Nursing*, August 2007, 20(3), 191–192.
- Zulkifli Kassim. (1997). *Correlates of intention to leave among non-commissioned officers of Malaysian army in the north region*. (Unpublished doctoral dissertation). Universiti Utara Malaysia, Malaysia.
- Zurn, P., Dolea, C., & Stiwell, B. (2005). *Nurse retention and recruitment: Developing a motivated workforce*. Issue Paper 4, World Health Organization, Dept of Human Resource Health.