

# JOB SATISFACTION OF NURSE LECTURERS IN MALAYSIA

Che Chong Chin<sup>1\*</sup>, Alison Beauchamp<sup>2</sup> & Kenneth Sellick<sup>3</sup>

<sup>1</sup>Lecturer, School of Nursing, Faculty of Medicine and Health Sciences, UCSI University, Malaysia

<sup>2</sup>Lecturer, School of Nursing and Midwifery, Monash University, Melbourne, Australia

<sup>3</sup>Senior Research Fellow, School of Nursing and Midwifery, Monash University, Melbourne, Australia

\*Corresponding author Email: checc@ucsi.edu.my

## ABSTRACT

**Background:** Consistent with other countries, Malaysia suffers from a shortage of nursing faculty. In several studies it has been seen that job satisfaction has been shown to contribute to retention of nurse educators. The majority of these studies are from developed countries and were conducted over ten years ago. As a result these findings may not be relevant to contemporary Malaysia. So, the purpose of this study was to investigate the levels of job satisfaction among nurse lecturers in Malaysia.

**Methods:** A total of 20 nursing colleges throughout Malaysia were selected for random sampling, of which 30% agreed to participate. The Minnesota Satisfaction Questionnaire with additional demographic and organizational characteristics questions was used to collect the data. Descriptive statistics was used to examine differences in job satisfaction between demographic and organizational variables. Spearman's rho was used to test the relationship between each of the demographic / organizational characteristics and overall job satisfaction.

**Results:** A total of 73 nurse lecturers (73% response rate) returned the completed questionnaire. The findings indicated only a moderate level of job satisfaction. There were no significant correlations between demographic or organizational variables and overall job satisfaction levels with the exception of the number of students ( $p=0.017$ ).

**Conclusions:** An understanding of the factors affecting job satisfaction among nursing faculty could enhance retention and recruitment in this profession. Further research using a combination of quantitative and qualitative approaches is recommended to provide an in-depth understanding of nursing lecturers' perceptions of job satisfaction.

*Keywords: Nurse Job Satisfaction, Nurse Lecturers, Nurse Job.*

## INTRODUCTION

The nursing profession in Malaysia is facing many challenges as a result of rapid socio-economic change and also due to changes occurring within the country's healthcare system, in this age of radical reform (Barnett *et al.*, 2010). Both factors have a significant impact on the development of nurse education in Malaysia, demonstrated by an increase in the number of nursing colleges from 46 in 2008 to a total of 106 in 2010 (Khatijah, 2010; Ibrahim, 2008). Such rapid growth has created an increased demand for appropriately qualified nurse educators (Khatijah, 2010). Consistent with other countries (McAllister, 2012; McDermid *et al.*, 2012; Potempa *et al.*, 2009) Malaysia suffers from a lack of nursing faculty (Ibrahim, 2008). Reasons for such a situation may be due to the shortage nurses globally, limited opportunities to qualify as an educator and difficulty in the retention of staff (Khatijah, 2010; McAllister, 2012). Lack of nursing faculty is considered

to be a major barrier to the continuing production of registered nurses, and this in turn is expected to significantly affect future patient care (McDermid *et al.*, 2012; Potempa *et al.*, 2009; Gui *et al.*, 2009). It is therefore important to identify the factors influencing nurse faculty recruitment and retention, particularly for developing countries such as Malaysia with very less nurse-patient ratios than recommended (World Health Organisation Malaysia, 2009).

Level of job satisfaction was a factor previously linked with the retention of nursing faculty (Chung and Kowalski, 2012; Baker, 2010a). Elements that can negatively influence the satisfaction of nursing education as a career include heavy workload, low wages, curriculum revision, insufficient support and time pressure. (Baker, 2010b; Yordy, 2006; Gerolamo, 2011; Holopainen *et al.*, 2007) Several earlier studies examined nurse educators' satisfaction in relation to a number of influencing factors and most of them reported

moderate levels of job satisfaction (Barrett *et al.*, 1992; Chen *et al.*, 2005; Guidry, 1991; Kuennen, 2002; Snarr and Krochalk, 1996). Overall however, there is a paucity of recent research into job satisfaction among nursing faculty, with the majority of studies being from developed countries. Given the recent concerns about decreasing numbers of nurse educators, there is a strong need for more contemporary studies. Further, it is possible that issues relating to job satisfaction have a greater or lesser significance in developing countries due to the differing social contexts of nurse education (Gui *et al.*, 2009). Studies from countries such as Malaysia are therefore urgently required.

Job satisfaction is influenced by a wide range of variables which can be broadly grouped into demographic and organizational characteristics and intrinsic and extrinsic factors. Intrinsic factors include responsibility, achievement, promotional opportunities and recognition. In a review by Gui *et al.*, (2009), investigators studied intrinsic factors associated with nurse teachers' job satisfaction. The report cited the following factors affecting this profession: professional autonomy, good supervision, positive feedback from learners and supervisors, supportive colleagues and keeping clinical knowledge up to date. Extrinsic factors are related to the organizational characteristics, but also include relationships with co-workers, leadership styles and salary. Studies indicated that factors with the highest predictive power for job satisfaction are intrinsic factors rather than extrinsic (Gormley, 2003).

Demographic factors include level of education, years of teaching and age of lecturers. Findings are conflicting as to the contribution of demographic factors to job satisfaction among nurse educators. From a study conducted in Midwestern states, North America, it was found that there was no significant relationships between level of education and years of teaching with the overall job satisfaction (Kuennen, 2002). However, an earlier North American study reported inverse relationships between number of years at the current institution and satisfaction with the work (Donohue, 1986).

Organizational factors include type of nursing institutions, number of students and salary. A meta-analysis of the finding of six studies on organizational characteristics showed that they have little predictive

power for job satisfaction (Gormley, 2003). Conversely, (Clifford, 1992) reported that large groups of students were viewed negatively by a number of teachers, while a Canadian study found significant differences in job satisfaction among university and college faculties (Barrett *et al.*, 1992).

Given the current context of an ageing nursing faculty and increasing numbers of schools and students in Malaysia it is important to increase our understanding of the contribution of demographic and organizational characteristics along with intrinsic and extrinsic factors towards job satisfaction among nurse educators. The aim of this study was therefore to identify the level of job satisfaction of nurse lecturers in Malaysia, including intrinsic and extrinsic aspects, and to explore the relationship between demographic / organizational characteristics and overall job satisfaction scores.

## **METHODS**

### **Sample**

A list of names and addresses of nursing institutions was retrieved from the Malaysian Ministry of Health. From 106 nursing institutions registered under the Malaysian Nursing Board, proportional random sampling was used to select 20 institutions to represent both public and private nursing schools and colleges. The study sample comprised of 12 private nursing colleges, 5 public nursing colleges and 3 universities. Sample size calculations (Cohen, 1987) indicated that 102 participants were needed for 80% power and an effect size of 0.5 at the  $p=0.05$  level of significance. Inclusion criteria for the study were to be a full time nursing lecturer and having at least one year of teaching experience.

### **Data collection**

Two questionnaires were used. First, a self-report questionnaire was designed to obtain the following measures: gender, marital status, age, academic qualification, years of experience as a registered nurse, years of experience as a nurse teacher and academic position. Organizational data such as type of teaching institutions and number of students were also incorporated. In order to enhance reliability a pilot study was conducted on ten nurse lecturers in the researcher's workplace to test the validity of the questionnaire with only minor modifications.

Second, we used the Minnesota Satisfaction Questionnaire (MSQ) to measure job satisfaction. (Weiss *et al.*, 1967) Several instruments have been adopted by researchers to examine job satisfaction among nurse teachers, (Gui *et al.*, 2009). For the present study we chose the MSQ as it is considered to be cohesive with Herzberg's motivator-hygiene theory, used as the conceptual framework for this study (Herzberg, 1966). The MSQ is a measure of facet satisfaction developed by the internal criterion likert method. Each of the twenty facets of work are described by 20 items. A general job satisfaction score of 100 is obtained by summing all 20 item scores (Hersen and Thomas, 2004). The MSQ is also scored using two second-order scales: intrinsic job satisfaction and extrinsic job satisfaction. The total score for extrinsic facets is 45 and for intrinsic facets it is 55. A combination of the MSQ and the Multifactor leadership Questionnaire was previously used to measure nursing faculty job satisfaction and their perceptions of leadership styles in Taiwan (Chen *et al.*, 2005).

### **Ethical considerations**

An initial letter was sent to the deans or heads of nursing departments requesting approval to conduct the study in their colleges. Approval letters were received from 3 private nursing colleges, 2 public nursing colleges and 1 university. The research project was approved by Monash University Human Research Ethics Committee. Participation in the study was voluntary and nurse lecturers were under no obligation to consent to participation. Return of the completed questionnaire was considered to imply consent.

### **Procedure**

Questionnaire parcels including the invitation letter were mailed to the deans of nursing colleges, and distributed to participants by administrative staff on behalf of the researcher. All completed questionnaires were mailed back to the researchers separately without revealing the identification of the participants.

### **Data analysis**

All data were analysed using the Statistical Package for the Social Science (SPSS) for Windows, version 16.0. One- way ANOVA was used to examine any

significant differences in job satisfaction levels within sub-categories of each of the demographic and organizational variables. Two-tailed t-tests were adopted to investigate any significant differences in job satisfaction between nurse lecturers employed at public and private nursing colleges. A *t* or *F* statistic value of 0.05 was considered statistically significant. Correlational analysis between each of the demographic / organizational characteristics and overall job satisfaction scores were measured using Spearman's rho as the variables represented non parametric data.

## **RESULTS**

### **Demographic and organisational characteristics**

A total of 73 nurse lecturers returned questionnaires, giving a response rate of 73%. As shown in Table 1, the respondents consisted of 72 female and 1 male. Over three quarters of participants were married. The age groups of participants were distributed equally among those over 50 yrs (25%), 36 to 40 yrs (23%) and less than 35 yrs (23%). Most participants were qualified with a diploma or Bachelor Degree in Nursing, with only 15% having a master's degree or PhD. Majority of participants had over 10 years of experience as a registered nurse with a mean of 17 years. In contrast to their number of years' experience as a registered nurse, the majority had less than 3 years' experience as a nurse teacher with a mean of 7 years. A total of 63% of participants were junior lecturers. The proportions of respondents from public and private nursing colleges were similar. The majority of participants were teaching in colleges with student populations of less than 300.

We examined the level of overall job satisfaction of nurse lecturers in Malaysia as measured by the MSQ. Table 2 shows the mean score of general or overall job satisfaction was 66.3 out of a total possible score of 100, representing a moderate level of satisfaction (Weiss *et al.*, 1967). Only 11% of nurse lecturers were very satisfied (MSQ scores = 81-100) in their job. We also examined intrinsic and extrinsic satisfaction. This study found a mean intrinsic factor score of 37.5 out of a possible total score of 55. Results indicated a mean extrinsic factor score of 28.8 out of a possible total score of 45.

**TABLE 1: Demographic and organisational characteristics of 73 nurse lecturers in Malaysia**

Demographic characteristics	n(%)	
<b>Gender</b>	Male	1 (1.4)
	Female	72 (98.6)
<b>Marital Status</b>	Not married	58 (79.5)
	Married	15 (20.5)
<b>Age</b>	< 35 yrs	17 (23.3)
	36 – 40 yrs	17 (23.3)
	41 – 45 yrs	9 (12.3)
	46 – 50 yrs	12 (16.4)
	> 50 yrs	18 (24.7)
<b>Academic qualification</b>	Diploma or Bachelor degree	62 (84.9)
	Other <sup>1</sup>	11 (15.1)
<b>Years experience as a registered nurse</b>	< 3 yrs	3 (4.1)
	4 – 6 yrs	5 (6.8)
	7 – 9 yrs	3 (4.2)
	> 10 yrs	62 (84.9)
	Mean (Standard deviation)	16.8 (9.3)
<b>Years experience as a nurse teacher</b>	< 3 yrs	28 (38.3)
	4 – 6 yrs	18 (24.6)
	7 – 9 yrs	10 (13.7)
	> 10 yrs	17 (23.4)
	Mean (Standard deviation)	6.6 (5.7)
<b>Academic Position</b>	Junior lecturer	46 (63)
	Senior lecturer	27 (37)
<b>Teaching institutions</b>	Public nursing college	37 (50.7)
	Private nursing college	36 (49.3)
<b>Number of students</b>	<300	39 (53.4)
	301 - 1000	13 (17.8)
	>1000	21 (28.8)

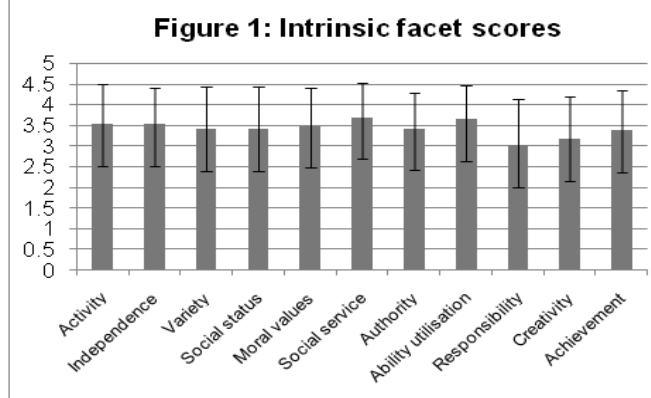
<sup>1</sup> ‘Other’ defined as Master Degree or PhD

**TABLE 2 : Job satisfaction scores of 73 nurse lecturers in Malaysia**

	Mean	SD
Overall satisfaction score	66.3	12.5
Intrinsic satisfaction score	37.5	6.9
Extrinsic satisfaction score	28.8	6.3

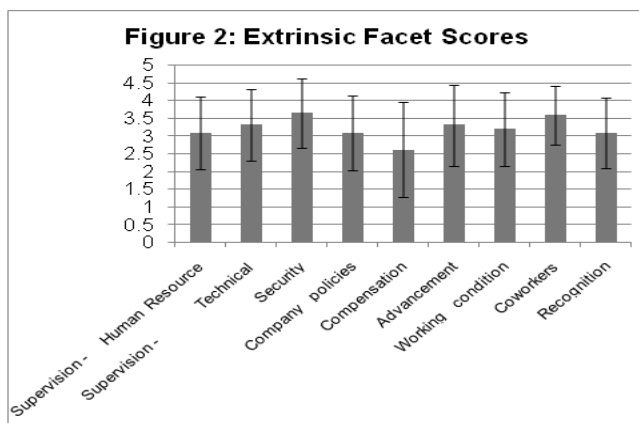
**Intrinsic and extrinsic facet scores:**

As presented in Figure 1, all the eleven intrinsic work facets scored a mean of 3 and above. The highest ranking work facets were “social service” (3.7, ± 0.9) and “ability utilization” (3.6, ± 0.8). The intrinsic factor which received the lowest satisfaction rating by participants was “responsibility” (3.0, ± 1.1).



Extrinsic satisfaction scores are reported in Figure 2. All nine extrinsic work facets scored 3 and above except compensation. This scored 2.6 (± 1.3) and was the lowest ranking work facet with this score interpreted as

dissatisfied. The highest ranking work facets were security (3.6,  $\pm$ 0.9) and coworkers (3.6,  $\pm$ 0.8).



We also examined any significant differences in overall job satisfaction levels according to participant demographics and organizational characteristics (Table 3). There were some differences in mean overall job satisfaction scores between sub-categories of

demographic variables, including a pattern of higher job satisfaction for those who were not married compared to those who were married (69.9 vs. 65.4), and for those with a diploma or degree compared to those with 'other' qualifications (66.7 vs. 63.9). Those participants with 4 to 6 years of experience as a registered nurse also had a higher mean score, in particular compared to those with <3 years of experience (73.4 vs. 59.3). However, analysis of variance revealed no significant differences in these scores.

For organizational characteristics, mean overall satisfaction scores for nursing lecturers in private nursing colleges were slightly higher (68.4) compared to public nursing colleges (64.2). Mean scores declined as the number of students increased. The smallest student numbers (<300) obtained the highest mean score (69.1). Lecturers with the largest student numbers (>1000) were least satisfied in their job (61.5). Analysis of variance indicated no statistically significant differences between type of teaching institutions and number of students.

**TABLE 3 - Mean overall satisfaction scores according to demographic characteristics for 73 nurse lecturers in Malaysia**

Demographic and organisational characteristics	n	Mean	SD	t/F statistic*	
<b>Marital Status</b>	Married	58	65.4	11.6	-1.27 (ns)
	Not married	15	69.9	15.6	
<b>Age</b>	< 35 yrs	17	68.7	12.7	1.29 (ns)
	36 – 40 yrs	17	60.9	11.6	
	41 – 45 yrs	9	70.0	14.9	
	46 – 50 yrs	12	65.1	9.2	
	> 50 yrs	18	68.2	13.4	
<b>Academic qualification</b>	Diploma or Bachelor degree	62	66.7	12.4	0.69(ns)
	<sup>1</sup> Other	11	63.9	13.6	
<b>Years experience as a registered nurse</b>	< 3 yrs	3	59.3	17.6	0.85(ns)
	4 – 6 yrs	5	73.4	21.0	
	7 – 9 yrs	3	66.7	11.2	
	> 10 yrs	62	66.1	11.6	
<b>Years experience as a nurse teacher</b>	< 3 yrs	28	66.8	11.3	0.13(ns)
	4 – 6 yrs	18	64.8	17.6	
	7 – 9 yrs	10	67.4	9.2	
	> 10 yrs	17	66.5	10.5	
<b>Academic Position</b>	Junior lecturer	46	66.4	12.2	0.09(ns)
	Senior lecturer	27	66.1	13.3	
<b>Teaching institutions</b>	Public nursing college	37	64.2	11.4	-1.46(ns)
	Private nursing college	36	68.4	13.2	
<b>Number of students</b>	<300	39	69.1	12.3	2.6(ns)
	301 - 1000	13	65.8	11.8	
	>1000	21	61.5	12.4	

<sup>1</sup>'Other' defined as Master Degree or PhD

\* Significance of difference in means between categories of each variable tested using one way ANOVA or independent sample t-test at the 0.05 level

ns = not significant at  $p < 0.05$



There were no significant differences in mean intrinsic satisfaction scores for each of the demographic or organizational characteristics for nurse lecturers in Malaysia (data not shown). Those with less than 3 years of experience as a registered nurse scored a lower intrinsic satisfaction level (31,  $\pm 9.2$ ) compared to those with more experience (37.5,  $\pm 6.6$ ), although this difference was not statistically significant. There were also no significant differences in mean extrinsic satisfaction scores for each of the demographic characteristics and organizational characteristics. However, the same trend as for overall job satisfaction scores according to student numbers was apparent. Mean intrinsic and extrinsic satisfaction scores declined as student numbers increased.

Finally, we examined the association between each demographic /organizational characteristic and overall job satisfaction score using Spearman's rho correlation (data not shown). Results showed that almost all variables were insignificant at the 0.05 significance level with the exception of the variable "number of students" ( $p = 0.017$ ). A slight inverse linear relationship between these variables was noted with a correlation coefficient value of  $-0.28$ , suggesting that lecturers from colleges with fewer numbers of students were more satisfied in their job.

## DISCUSSION

The main finding of this study indicated that Malaysia's nurse lecturers demonstrated a moderate level of job satisfaction. There were no significant differences in job satisfaction within sub-groups of each of the demographic and organizational variables. There were also no significant correlations between the majority of demographic or organizational variables and overall job satisfaction levels, with the exception of the variable "number of students".

Findings from this present study are generally consistent with those who report low to negligible associations between organizational characteristics and overall job satisfaction. Public/private statuses, size of student enrolment and nursing program characteristics have been shown by others to be unrelated to job satisfaction. (Snarr and Krochalk, 1996; Barrett *et al.*, 1992) However, we did find a slight inverse association between the number of students at each institution and job satisfaction, and while it is not possible to make inferences from this finding, it is of interest given that no

similar studies have been conducted in Malaysia. More details are needed to validate these results, such as the lecturer to student ratio, workload detail, and type of nursing program offered.

"Responsibility" was rated as the least satisfying intrinsic factor. "Responsibility" is assessed by the item - "The freedom to use my own judgment", and could be interpreted as the nursing lecturers feeling constrained in making their own judgments.

The study findings also suggest that nursing lecturers with less than 3 years of experience as a registered nurse exhibit lower satisfaction than other groups. A possible explanation is that those with minimum clinical experience may have encountered problems in their class teaching, causing an undesirable effect on job satisfaction levels. Clinical experience would enhance the lecturers' confidence level in integrating theory and practical when they are conducting classes.

### Identification of limitations

Male lecturers were excluded from this study because there was only one male participant, and so the findings of this study cannot be generalized to male nursing lecturers. According to sample size calculations, (Cohen, 1987) a sample size of 102 was needed for 80% power, but with a 73% response rate, power decreased to 68%. Furthermore, the respondent's views may have been contaminated by others with the adoption of mailed surveys. (Dillman, 1978) Results are based on self-reported measures and thus are more likely to be subject to response bias.

The reliability and validity of the MSQ may need to be re-examined according to Malaysian context and culture, since it was adopted from Minnesota in North America. Moreover, it cannot be assumed that the dimensions of these instruments are generalizable to professionals in nursing academia. Work on instrumentation related to nursing faculty job satisfaction remains limited. Another issue that should not be overlooked was the language used in the questionnaire. The questionnaires were delivered to participants without translation, but many nursing lecturers in Malaysia have not adopted English as their first language, therefore there might have been the possibility of imperfect understanding of the questionnaire.

### Implications for nursing

In order to deal with the issue of faculty shortage, a

more detailed study of job satisfaction levels among nurse lecturers should be employed by nurse administrators as part of developing recruitment and retention strategies. Studying job satisfaction among nursing educators could lead to the identification of environments conducive to high levels of satisfaction and enhance retention and recruitment of nurse educators. Deans or managers of nursing faculty might find the results from this study useful when dealing with motivation issues. Efforts can be made to eliminate or reduce the effects of those factors which lead to dissatisfaction and enhance those which can lead to satisfaction.

There is a strong relationship between dissatisfaction and burnout. (Roelen *et al.*, 2008) Employees with low levels of satisfaction are at risk of emotional exhaustion, absenteeism and mental disorders. Screening of job satisfaction levels among nurse lecturers can be adopted as a prevention strategy.

### **Recommendations for further research**

It is recommended that this research topic be explored in a larger, more heterogeneous sample in order to generalize more broadly to all nurse lecturers in Malaysia. The sample size should be large enough to at least meet a power of 0.8. An appropriate instrument which comprises a broader scope is recommended. Such an instrument may need to be modified for nursing academia and adapted to the local context for maximum effectiveness and accuracy. (Gui *et al.*, 2009) Furthermore, a translated questionnaire (Malay or

Mandarin) is recommended to provide another choice to participants and promote better understanding of the questionnaire content.

Factors other than selected demographic variables and organizational characteristics, such as personality characteristics, school location, types of programmes offered (undergraduate, graduate), levels of faculty role preparation, salary, leadership styles of immediate supervisor or dean, nationality of nurse lecturers (expatriate or local) and details of workload may influence levels of job satisfaction. Further investigation with additional variables is recommended to improve the validity of this study.

### **CONCLUSION**

Research on job satisfaction among nursing lecturers in Malaysia is still new, and more studies are recommended. This is particularly important as it is probable that the level of job satisfaction among nursing lecturers impacts on the quality of the teaching and learning process and ultimately in the quality of patient care. The findings from this study indicate the need for nursing administrators and nursing academic leaders to understand how varying demographic, organizational factors and work dimensions affect nursing lecturers' satisfaction level. Efforts in improving faculty job satisfaction and motivation are necessary for augmenting productivity and commitment in Malaysia's nursing profession.

### **REFERENCES**

- Baker, S (2010a). Nurse educator orientation: professional development that promotes retention. *Journal of Continuing Education in Nursing*. 41, pp 413-417.
- Baker, S (2010b). Nurse educator orientation: professional development that promotes retention. *Journal of Continuing Education in Nursing*. 41, pp 413-417.
- Barnett, T, Namasivayam, P & Narudin, DAA. (2010). A critical review of the nursing shortage in Malaysia. *International Nursing Review*, 57, pp 32-39.
- Barrett, MC, Goldenberg, D & Faux, S (1992). Career patterns and job satisfaction of Canadian nurse educators. *Journal of Advanced Nursing*. 17, pp 1002 - 1011.
- Chen, HC, Beck, SL & Amos, LK (2005). Leadership styles and nursing faculty job satisfaction in Taiwan. *Journal of Nursing Scholarship*. 37, pp 374 - 380.
- Chung, C & Kowalski, S (2012). Job stress, mentoring, psychological empowerment, and job satisfaction among nursing faculty. *Journal of Nursing Education*. 51, pp 381-388.
- Clifford, C (1992). The role of the nurse teacher. *Nurse Education Today*. 12, pp 340-349.

- Cohen, J (1987). *Statistical power analysis for the behavioral sciences*. Hillsdale, NJ, Erlbaum.
- Dillman, D (1978). *Mail and telephone surveys: The total design method*. New York, Wiley & Sons.
- Donohue, JD (1986). Faculty perceptions of organizational climate and expressed job satisfaction in selected baccalaureate schools of nursing. *Journal of Professional Nursing*. 2, pp 373 - 379.
- Gerolamo, A (2011). Workload and the nurse faculty shortage: Implications for policy and research. *Nursing Outlook*.. 59, pp 259-265.
- Gormley, DK (2003). Factors affecting job satisfaction in nurse faculty: A meta-analysis. *Journal of Nursing Education*. 42, pp 174-178.
- Gui L, Barriball K L & Ae, W (2009). Job satisfaction of nurse teachers: A literature review. Part II: Effects and related factors. *Nurse Education Today*. pp 477 - 487.
- Gui, L, Barriball, KL & While, AE (2009). Job satisfaction of nurse teachers: A literature review. Part I: Measurement, levels and components. *Nurse Education Today*. 29, pp 469 - 476.
- Guidry, SF (1991). Job satisfaction of Israeli nursing faculty: one factor affecting the advancement of nursing in the state of Israel. *University of Alabama at Birmingham, School of Nursing*., pp 1991 - 240.
- Hersen, M & Thomas, JC (2004). *Comprehensive handbook of psychological assessment: Industrial and organizational assessment*.. New Jersey, John Wiley & Sons.
- Herzberg, F (1966). *Work and the nature of man*. New York, World Publishing Company.
- Holopainenena, A, Hakulinen-Vlitanenb, T & Tossavainenc, K (2007). Nurse teacherhood: systematic descriptive review and content analysis. *International Journal of Nursing Studies*. 44, pp 611-623.
- Ibrahim, Z (2008). Malaysia needs an International Nursing University [Online]. March 24, 2008 13:38 PM. *Bernama.com* Available: <http://www.bernama.com/bernama/v5/bm/index.php>, [Accessed 24th March 2008].
- Khatijah, L (2010). No more nursing schools from July [Online]. *The Star*. Available: <http://thestar.com.my/>, [Accessed 27th April 2010].
- Kuennen, JK (2002). Job satisfaction among nurse educators of private colleges and universities. Unpublished doctoral thesis.
- McAllister, MM (2012). Challenges facing nursing education in Australia: two solutions. *Journal of Nursing Education and Practice*. 2, pp 20-27.
- McDermid, F, Peters, K, Jackson, D & Daly, J (2012). Factors contributing to the shortage of nurse faculty: A review of the literature. *Nurse Education Today*. 32, pp 565-569.
- Potempa, K, Redman, RW & Landstrom, G (2009). Human resources in nursing education: a worldwide crisis. *Collegian*. 16, pp 19-23.
- Roelen, Cam, Koopmanns, PC & Groothoff, JW (2008). Which work factors determine job satisfaction? *Work*. 30, pp 433-439.
- Snarr, CE & Krochalk, PC (1996). Job satisfaction and organizational characteristics: Results of a nationwide survey of baccalaureate nursing faculty in the United States. *Journal of Advanced Nursing*. 24, pp 405 - 412.
- Weiss, DJ, Dawis, RV, England, GW & Lofquist, LH (1967). *Manual for the Minnesota Satisfaction Questionnaire*. Minneapolis, Industrial Relations Center, University of Minnesota
- World Health Organisation, Malaysia (2009). Country cooperation strategy. *In: WWW.WHO.INT/COUNTRYFOCUS/COOPERATION\_STRATEGY/CCS\_MYS\_EN.PDF* (ed.).
- Yordy, KD (2006). *The nursing faculty shortage: a crisis for health care*. Princeton, NJ: The Robert Wood Johnson Foundation to the Association of Academic Health Centers (AAHC).