

# Determinants of Malaysian Undergraduate Nurses' Occupational Commitment.

## Abstract

### Background

**Objectives:** To explore factors that influenced the self-reported occupational commitment of Malaysian nurses to remain within the nursing profession upon completion of their undergraduate studies

**Design:** A one-level hypothetical model was formulated to identify which latent variables had direct and indirect influences on the Malaysian undergraduate nurses' expectations to remain in the nursing profession upon graduation.

**Setting:** A Malaysian university school of nursing

**Participants:** 172 undergraduate diploma nursing students

**Method:** Questionnaires including the use of Likert scales were used to capture demographic data and to estimate self-rated consensus and ability levels which measure occupational commitment to the nursing profession.

**Results:** Forty-one percent of the variance of the Malaysian undergraduate nurses' occupational commitment scores was explained. The most significant predictor variables which had direct influence on self-consensus for occupational commitment was their undergraduate stress levels, achievement grades and their concurrent beliefs about their transition roles as a beginning registered nurse. The variables of students' age, qualifications, emotional intelligence, number of siblings and the number of persons residing at home exerted additional indirect effects on occupational commitment with the undergraduate student gender having no influence at all.

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## Keywords

Occupational Commitment, Path Analysis,  
Undergraduate Malaysian nurses, Self-efficacy.

# Introduction

Malaysia has the lowest nurse density in the region with a ratio of 1 nurse to 559 people as compared to 1 nurse per 200 people in neighbouring countries (Barnett, Namasivayam, & Narudin 2010).

These authors cite the Ministry of Health Malaysia and state the total number of nurses in 2006 was 47,642 this is a significant increase from 20,056 nurses in 1996 – (more than doubling the number of nurses in a 10 year period). It could be argued that this increase is significant with respect to student learning in the clinical arena because these figures could be interpreted as Malaysia having a nursing workforce with potentially less experience to support and teach students in their practicum. This conclusion is drawn from the figures provided by Barnett et al (2010) which show that there was an increase of more than 10,000 nurses between 2003 and 2006. Furthermore it is predicted that in order to achieve parity with other countries in the region by 2020 the number of nurses will need to rise to 174,000 (Barnett et al 2010). The aim for a nurse patient/population ratio of 1:200 is related to Malaysia's goal to achieve recognition as a developed country by 2020 (Barnett et al 2010). This has significance for the education providers in partnership with the health care industry because whilst recruitment strategies may be successful, unless there is a high level of retention the target will potentially not be achieved.

A shortage of nurses in Malaysia is not a recent phenomenon, and yet little is known about why Malaysian nurses leave the nursing profession. One possible explanation for a high nurse attrition rate in Malaysia could be because nursing is not held in high regard as an occupation, with many parents

discouraging their children from pursuing this as a career which considers nursing a menial job. Despite this, often young women will commence a nursing career because the political current system offers them a chance to move away from home, as most hospitals provide accommodation and an allowance during the period of training (e.g., Alam & Mohammad, 2010).

While there has been a significant number of studies' exploring workforce nursing retention and its relationship to nurses' commitment to their employing organisations, the relationship of undergraduate nurses and their commitment to their occupation, is not as thoroughly explored in Western countries let alone in countries such as Malaysia (e.g., Cohen 2000; Nogueras 2006). Occupational commitment is described as an individual's intention of remaining in the profession of nursing rather than choosing to leave it, particularly at the completion of undergraduate nursing studies (e.g., Lee, Carswell & Allen, 2000)

Recent literature suggests that occupational commitment is a multi-dimensional construct and inherent within it are four underlying dimensions (e.g., Blau 2003; Meyer 1993). Specifically, it includes the nurses' feelings of attachment toward the profession (affective), a sense of obligation to stay within the profession (normative), the degree of individual nurses' indebtedness to remain within the profession that may have arisen from nursing education

for example (accumulated costs) and lastly, the availability of alternative choices of professional work, outside of the nursing profession (limited alternatives dimension). Studies suggest registered nurses committed to their occupation, do report decreased intentions to resign and lesser absenteeism whereas registered nurses with lower occupational commitment more frequently report higher staff turnover, absenteeism, role conflict and ambiguity of job roles (e.g., Lu et al. 2002; Teng, Shyu and Chang 2006; Wu and Norman 2006). Furthermore, it is argued that nurses committed to their occupation, perform better in their roles as registered nurses compared to others who are less committed (e.g., Mrayyan & Al-Faouri 2009).

Work related factors which include shift work, tenure in nursing and job satisfaction, are all implicated in influencing nurses' occupational commitment. For example, where nurses on permanent night shift showed a significant lower occupational commitment when compared to nurses on other shift patterns (e.g., Brooks & Swailes, 2002). One study showed a positive significant correlation between occupational commitment and the years of experience in nursing (e.g., Mrayyan & Al-Faouri, 2009). In one Malaysian study, the nurses' affective component (an aspect of occupational commitment) has a more significant influence on job satisfaction among nurses and specifically allows for greater opportunities for both formal and informal interactions during working hours, while pay levels were not a significant factor for job satisfaction for Malaysian nurses (e.g., Ahmad & Oranye 2010)

Other factors that may influence occupational commitment include academic success and the role of emotional intelligence in student life. Academic success among East Asian students is well known and almost stereotypical with a strong expectation to succeed in study (e.g., Sung, 2010). Additionally, the influence of the family on their Malaysian nursing students' emotional intelligence estimates arise from strong beliefs within the hierarchy of the family order, the importance of "saving face", hard work in education, respect for elders and sibling relations all have an impact on parent/child interaction and emotional intelligence estimates. The literature about sibling number, household size and student achievement is not strong with one study suggesting that the relationship between sibling size and subsequent achievement as being very complex and where correlations between these variables can either be positive, negative or neutral (e.g., Adli, Louchi, & Tamouh, 2010).

During the transition period, new nursing graduates adjust to the requirements of nursing in order to perform effectively in the nursing workforce and also learn additional skills, knowledge and values that will be useful in their role as a RN. These tasks in turn are said to influence the individual nurses' occupational commitment (e.g., Clare & van Loon 2003; Duchscher 2001; Goh & Watt 2003).

Two studies posit that emotional intelligence has a significant impact not only on learning but on a range of nursing activities including team work skills, developing workplace innovations and in the quality of delivered nursing services (e.g., Berenson & Boyles, 2008; Guleryuz et al., 2008). These authors go on further to suggest the EI estimates of nurses, influence their satisfaction with their jobs and commitment of the work. EI is therefore selected to be investigated as a predicting multi-dimensional variable in this study, including its four component parts that explore the individual nurses' ability to express emotions (SEA) and regulate their own emotions (ROE), understands others emotions (OEA) and use of their emotions constructively (UOE). In one study, the factors that influenced Malaysian nurse achievement had an inverse relationship between the age of the student and their perceived levels of stress while a student (e.g., Blackman, Singh & Darnawn, 2010).

This study will argue that each of the variables as already described and as illustrated in Figure 1, will have a statistically significant influence on undergraduate nurses' estimates of occupational commitment to nursing in Malaysia

## 2. Methods

Figure 1 gives a diagrammatic form of the hypothesized path model for predicting undergraduate Malaysian nurses' readiness to commit to nursing as a profession. The outer model of the path diagram is composed of the manifest variables which are displayed (in Figure 1) as small rectangular boxes. These variables are derived from undergraduate nurses' records and data derived from surveys completed by Malaysian nursing students.

The latent variables are shown (in oval-shaped figures) also in Figure 1, together with the directions (shown as arrows) of the predicted causal influences impacting on undergraduate Malaysian nurses' beliefs about wishing to stay within the nursing profession, upon their graduation. A full explanation of all data and statements asked of the undergraduate nurses that compose the variables being estimated, are displayed in the two tables below. It is hypothesized (as portrayed in Figure 1) that undergraduate

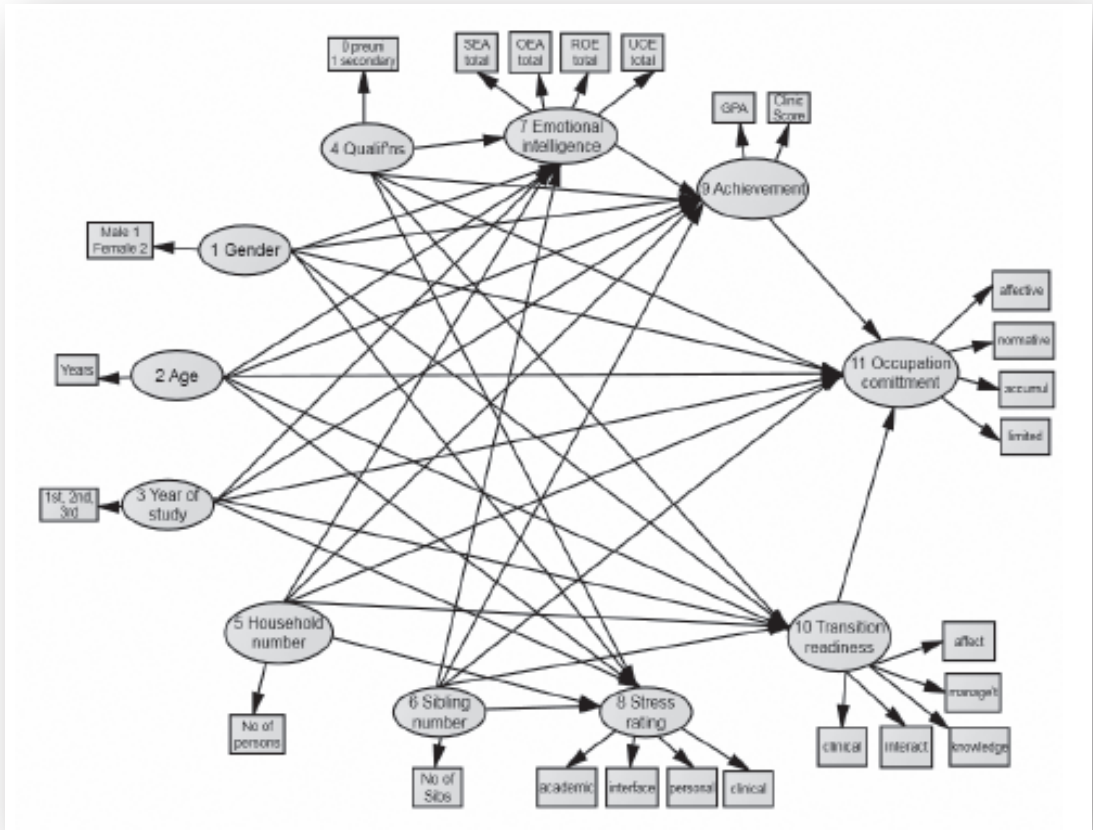


Figure 1: A hypothetical or predicted relationships between manifest and latent variables that describe Malaysian undergraduate nurses' occupational commitment to nursing, upon course completion

Malaysian nurses' demographic characteristics will have an influence on their readiness to commit to the nursing profession upon their graduation.

Table 1 introduces the undergraduate student demographic variables (e.g.: age).

The latent variables are shown (in oval-shaped figures) also in Figure 1, together with the directions (shown as arrows) of the predicted causal influences impacting on undergraduate Malaysian nurses' beliefs about wishing to stay within the nursing profession, upon their graduation. A full explanation of all data and statements asked of the undergraduate nurses that compose the variables being estimated, are displayed in the two tables below. It is hypothesized (as portrayed in Figure 1) that undergraduate Malaysian nurses' demographic characteristics will have an influence on their readiness to commit to the nursing profession upon their graduation.

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## Participants

Subject to and satisfying ethical requirements for the study, a retrospective sample of 172 undergraduate nursing students enrolled in their diploma of nursing studies in a Malaysian School of Nursing, was chosen for this research study.

The majority of students (n=160) were female undergraduates (93 per cent) with the majority of them speaking Malay (97 per cent) as their first language. The age range of the Malaysian undergraduate nurses was from 19 to 27 years (mean of 20.5 years S.D. of 1.4 years). The majority of students had completed secondary school (90 per cent) with the remainder holding a pre-university qualification. Just on one half of all undergraduate nurses had between 4 to 6 people living with them at their primary residence, with another 35 per cent of students having up to 9 people in residence. Within those numbers, over 44 per cent of undergraduate

**Table 1: Descriptors of demographic variables**

Variables (number and type)	Description of the variables
1. Gender	Gender of the undergraduate nurse in years
2. Age	Age of the undergraduate nurse
3. Year of study	The year of study that the undergraduate nurse was currently undertaking
4. Qualification on course entry	Secondary or pre-university certification held by student on nursing course commencement
5. Household number	The number of people residing in the household of the undergraduate nurse
6. Sibling number	The number of siblings residing in the undergraduate nurses' household.

*Several of the variables being tested in this study were not able to be directly observed (hence called latent variables), necessitating the use of manifest (or measurable) variables which in turn, are used to observe and measure these latent variables. These are listed on Table 2.*

**Table 2: Descriptors of the manifest variables that define the latent variables**

Latent variable numbers and titles	Descriptions of manifest variables
7. Emotional Intelligence rating. Self-rated responses to dichotomous items estimating E.I. (Wong et al. 2004)	5 items estimating each of the four foundations for emotional intelligence estimates: SEA, OEA ROE UOE
8. Stress levels: undergraduate student self awareness (Likert scale) about different aspects of stress associated completing their undergraduate nursing programs	22 items estimating four different aspects of perceived undergraduate stress: 5 items indicating academic stress, 6 items indicating clinical stress, 4 items indicating personal stress and 7 items indicating stress related to student life
9. Achievement outcomes. Scores obtained both academically and in the clinical setting	Two scores obtained by undergraduate nurses at course completion: Grade Point Average (GPA) and Clinical Score
10. Transition. Self-efficacy ratings for their anticipated role as a beginning registered nurse (upon transition from student to registered nurse)	27 items using Likert scales estimating readiness to engage with clinical nursing work as a registered nurse.
11. Commitment to the nursing occupation. Self-rating estimating consensus about beliefs about occupational commitment to nursing	18 items using Likert scales estimating four sub-themes associated with occupational commitment to nursing:

nurses had up to 4 siblings with the reminder indicating they had more than 5 siblings present at home.

**2.1 Data Collection**

With full recognition of confidentiality issues, information about undergraduate student demographic and manifest variables was derived by compiling all academic records and clinical grades. Student nurses responses from the Likert scales used to measure self-confidence and consensus, to each of the questions used in the surveys were also employed. Specifically, in terms of undergraduate student self- assessment (latent variables 8 and

10-11), each student was asked in the survey, to rank how confident they believed they were to demonstrate the roles of a beginning registered nurse (transition variable), or indicate their self-perceived levels of stress (stressor variable) and their levels of consensus about their professional obligations to the nursing profession (occupational commitment variable). Reliability estimates of the three rating scales namely the stress index, the transition scale and the occupational commitment ratings were all acceptable (Cronbach alpha = 0.87, 0.92 and 0.84 respectively. The 40 item emotional intelligence (Weis) tool (Wong et al. 2004) was problematic for this group achieving only a reliability estimate of 0.51. Further

analysis of student responses indicated that student data describing EI in the Weis tool derived from anecdotal tests, was not reliable and removed. The remaining items were re-tested and the modified Weis tool was seen as adequately reliable (Cronbach alpha = 0.70)

### 2.2 Data Analysis

The Partial Least Squares Path Analysis (PLS-PATH 3.01) program (e.g., Sellin, 1989) and further developed by Hansmans & Ringle in 2004 (SmartPLS), was used to test the model of variables that were thought to influence Malaysian undergraduate nurses' occupational commitment to nursing. This analysis estimates relationships between the predictor variables and the final outcome measures (e.g., Noonan, 1985). It examines the causal relationships between the constructs of the model and estimates the magnitude of influence the relationships have between the variables. This procedure is highly appropriate for analysing and predicting relationships

between educational data that are not normally distributed (e.g., Sellin, 1989) and it can also deal with relatively small numbers of cases, yet remain very robust (e.g., Falk & Miller, 1992).

The presentation of the findings of the data collected in this study together with the estimated and statistically significant path models are shown in diagrammatic form in Figure 2.

### 3. Results

Figure 2 shows the final path model for the prediction and explanation of the variables that influence undergraduate students' commitment to the Malaysian nursing profession. A discussion of which variables have a direct influence on their commitment to the nursing profession will be discussed first and then an examination of how their beliefs about professional commitment are indirectly influenced by other variables will then be explored.

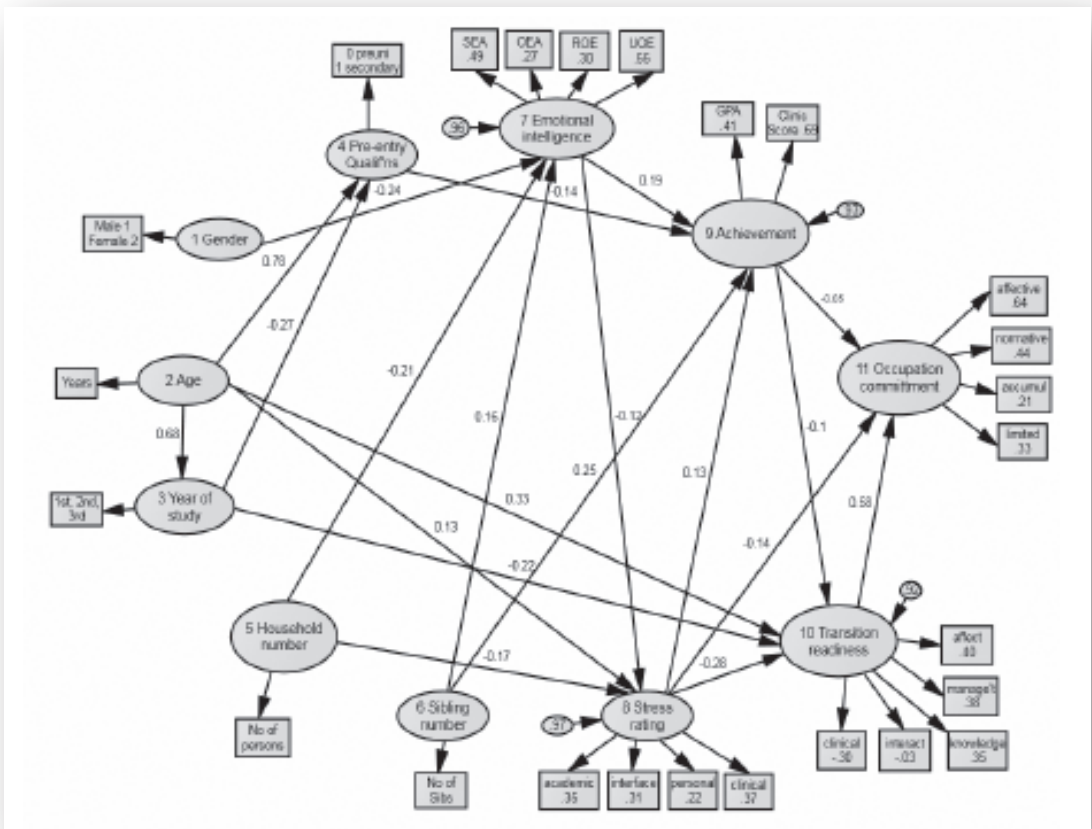


Figure 2: The final path model predicting Malaysian undergraduate nurse consensus to remain in the nursing profession, upon nursing course completion.

### 3.1 Factors having direct influences on undergraduate nurses' self-rating for occupational commitment to nursing

**3.1a.** The occupational commitment to nursing as influenced by the undergraduates nurse perception of the transitional role of a beginning graduate nurse.

The strongest pathway to influence the undergraduate nurse commitment to nursing arises from latent variable number 10. With a path co-efficient of .58, figure 2 confirms that

students who believe they would be able to cope with the role of a beginning registered nurse in their transitional role from an undergraduate nurse, rate a stronger commitment to stay in nursing.

**3.1b.** The influence of undergraduate nurses' stress levels on their occupational commitment to nursing.

With reference to Figure 2, it can be seen that a negative co-efficient (-.18) extends to the final variable (occupational commitment variable number 11) from the variable indicating undergraduates' self-rating for current stress levels (latent variable number 8). This pathway confirms that undergraduate nurse stress levels are inversely related to their beliefs for staying within the nursing profession upon graduation.

**3.1c.** The effects of undergraduate nurses' achievement on their occupational commitment to nursing as a graduate nurse.

Another negative pathway (-.05) extends to the latent variable number 11 which estimates undergraduate nurses' commitment to nursing. This time the path arises from latent variable number 9 which measures undergraduate nurse achievement. This co-efficient and its associated pathway indicates another inverse relationship between these two variables exists, in that higher achieving undergraduate students do not rate occupational commitment to nursing as highly in comparison to other nursing students who do not achieve as highly academically.

### 3.2. Factors having mediating effects on nurses' self-rating for occupational commitment to nursing

It has already been noted that undergraduate nurse ratings for stress, their achievement levels and their readiness for their transition role all have a direct influence on occupational commitment to nursing. It is worth noting however, that two co-efficient paths arise from the latent variable number 8 (undergraduate nurse stress ratings) and one goes to latent variable 8 and the other path to latent variable 10 (the achievement and transition readiness variables) with path co-efficients of .13

and -.28 respectively. What this demonstrates is that the stress variable which has already been shown to negatively influence undergraduate nurse occupational commitment is mediated by two other variables, namely the nurse achievement variable and their readiness for their transition role as new graduates. The path between latent variable 8 and 9 suggests that stress is having a positive effect on achievement and at the same time it is negatively influencing the undergraduate nurse's ratings for their confidence in dealing with the transitional role of a new graduate nurse.

It also noted that the variable indicating transition role readiness (variable number 10) mediates between the achievement variable and their final variable. Latent variable number 9 (achievement) has a simultaneous influence not only directly on occupational commitment but also influences transition readiness negatively also (-.10). This suggests that with higher achieving students', they rate their readiness for a transitional role negatively, compared to lower achieving students, which in turn influences nurses' occupational commitment

### 3.3. Factors having indirect influences on undergraduate nurses' self-rating for occupational commitment to nursing

While a number of other variables do not have a direct influence on the undergraduate nurses' rating for commitment to the nursing profession, their influence none-the-less exerted on it, by influencing a variable which in turn, has a direct influence on professional commitment. These effects are important as they are seen to influence the direct effects variables have on student nurse self rated commitment to nursing practice and it is for this reason that these other variables are identified and their influences are now explored.

**3.3a.** The influence of the age of the undergraduate nurse on occupational commitment

Two paths arise from latent variable number 2 which portrays the undergraduate nurses' age. Both are positive paths of .13 and .33 which arrive at the variables that demote stress rating and transitional role readiness (which in turn influences occupational commitment) respectively. The paths suggest that it is the older undergraduate nurses who rate higher levels for stress in their learning programs but are simultaneously indicating greater readiness for their transitional role, compared to the younger cohort of undergraduate nurses

**3.3b.** The effects of the year of study undertaken by the undergraduate nurse and occupational commitment

A negative path co-efficient (-.23) arises from latent variable number 3 (year of study) to the transitional readiness variable (latent variable number 10). This path indicates that it is the final year students who are rating themselves as being less ready for their transitional role compared to less senior students

**3.3c** The influence of the undergraduate nurses' estimates of emotional intelligence on occupational commitment

Measures of the undergraduate nurses' emotional intelligence (latent variable 7) have a positive and a negative influence on the students' achievement and stress ratings variables respectively. Note a path co-efficient of .19 and -.12 indicate that students with a higher emotional intelligence quotient, not only achieve more highly but have also indicated less levels of stress while undertaking their educational programs

**3.3d.** The effects of undergraduate nurses' entry qualifications on occupational commitment

A negative co-efficient (-.14) also extends for latent variable 4 (indicating course entry qualifications into nursing) to the achievement variable. This highlights that it is the students with the higher qualifications on course entry, who are achieving higher scores than students with lower course entry qualifications

## 4. Discussion

This study has demonstrated that the graduating Malaysian student nurse's commitment to nursing is strongly defined by the feelings of attachment he/she has toward the profession of nursing and the degree of obligation that is felt to stay within nursing after completing undergraduate studies. This pattern is consistent with a number of other studies. One study suggests that it is the affective component of occupational commitment which is the strongest linkage to occupational commitment and suggests that on-going training has a positive effect on professional commitment (e.g., Bartlett, 2001). Another study argues that it is the sense of nurse obligation toward his/her work that is impacting mostly on occupational commitment, accounting for up to 70 per cent of the rate of estimating nurses' retention (e.g., Gambino, 2010). Additional studies takes nurses' occupational commitment a little further, highlighting that nurses' withdrawal from their work can be minimised by extending social supports at work, irrespective of the fact that newly graduate nurses enjoy their interactional effects of their work (e.g., Almad & Oranye, 2010; Beatrice, van der Heijden, & Hans, 2009; Lee, Carswell, & Allen, 2000).

This study is unable to comment on the effectiveness of extended social supports at work or structured transition programs in terms of occupational commitment as it was not a focus of this study.

Furthermore, the absence of Malaysian hospitals offering graduate entry programs for beginning registered nurses means newly qualified nurses do not have the opportunity for structured support at the workplace during this period of transition (e.g., Barnett 2011).

Much can be done however, to foster nurse occupational commitment within nurses, while they are students engaged in the learning programs. This discussion will now address issues associated with educational preparation of undergraduate nurses as a mechanism of fostering greater occupational commitment as highlighted in the path model.

New graduates engaging in a professional practice role for the first time are confronted with a broad range and scope of physical, intellectual, emotional, developmental and sociocultural changes (e.g., Duchscher, 2008). To minimise these alienating experiences, one study recommends that schools of nursing education need to, as a priority, find new and innovative ways of supporting nurses in their experience of role stress as undergraduate nurses (e.g., Chang et al., 2005). Some examples may include team-building strategies; balancing priorities; enhancing social and peer support; flexibility in work hours; protocols to deal with violence; and retention and attraction of nursing staff strategies.

This study has shown that student readiness for transition strongly influences their commitment to the profession and it is the older student nurses who rate themselves being confident and competent in their transitional roles compared to their younger peers. These findings are similar to these have been found in other studies (Blackman, Hall & Darmawan, 2007; Glackin & Glackin, 1998; Read, 1992). Dealing with stress associated with student life is also seen as significant predictor for transition readiness in this study. It has been shown that it is the older students who self-rate their stress levels as being lower compared to their younger peers during their undergraduate studies. While older students can be encouraged to join undergraduate nursing programs, this age factor alone is not the only major influence on students' readiness for their transition roles and commitment to nursing. In this study, an inverse relationship has been shown between student readiness for transition to their annual progress through the undergraduate nursing program. Nursing students who are nearing completion of their course

perceive themselves to be less confident and competent in their transitional roles, compared to commencing students. This finding is opposite to the expectation that confidence and commitment would be commensurate with undergraduate course progression. A possible reason for this unexpected outcome is the students' recognition that the actual clinical practices inherent in nursing, may differ markedly from the what is actually delivered in their educational program (referred to as the theory practice gap). Similar outcomes in this study were found in one other piece of literature, where a theory practice gap influenced the quality of the clinical experiences offered to nursing students, culminated in role ambiguity (e.g., Wu & Norman, 2006). To prevent the negative aspects of a widening the theory practice gap from prevailing, it is advocated that a minimum amount of clinical experience be offered to students while on course, so that their clinical skills can be enhanced and they would be better prepared for their roles on transition after graduation this (e.g., Barnett, Namasivayam, & Narudin 2010; Lu, While, & Louise-Barriball, 2007).

It can be argued that, along with the minimum amount of clinical experience, the quality of the clinical experience is also significant with respect to undergraduate students' exposure to the clinical environment. Therefore, redesigning clinical experience for undergraduate nursing students to incorporate clinical education models such as a dedicated education unit (DEU) would maximise undergraduate student nurses readiness for transition while simultaneously minimising transition problems on graduation. The DEU have a variety of positive outcomes in that they are seen to maintain the quality of patient care while simultaneously foster student relationships and provide an environment in which students and academics are accepted as a member of the nursing team (e.g., Ransie & Graeish, 2007). Furthermore, the DEU model has the potential to support what has previously been described as a relatively inexperienced clinical workforce in Malaysia. The skills for teaching students in the practice area are not instinctive. The DEU model supports the clinical staff to develop their capacity in this role (e.g., Murray et al, 2010). In other studies professional development contributes to higher levels of autonomy and recognition, role clarity, job satisfaction, quality of supervision, peer support, and opportunities for learning (e.g., Hart and Rotem 1995)

The use of undergraduate mentoring also is likely to reduce loss of nurses at the commencement of their graduate work by improving their sense of

job satisfaction. When an adequate relationship is fostered and developed between undergraduate and graduate nurses, mentorship can have profound positive effects, with an effective mentor assisting in developing a nurse's career potential including leadership roles (e.g., Race & Skees, 2010).

The adoption of reflective learning practices is one educational strategy that can be employed to minimise such role conflict and ambiguity, both as students and as beginning registered nurses undertaking their transitional roles. The use of reflective practice as a learning tool is additionally recommended, particularly when individual student values are in direct conflict with actions associated with professional practice, or which may arise from situations in which students do not agree with one another or lastly, from pressure arising from the profession. This mental processing of reflective learning facilitates experiential learning, allowing students to deal with uncertainties associated with application of knowledge and accept critical feedback while continuing to learn (e.g., Hinett, 2002). Additionally, the use of a student centred approach to clinical learning, where andragogical principles are employed to create supportive learning environments for undergraduate students (e.g., Eastel, 2008). From a pedagogical perspective, the authenticity in the process of learning professional issues as they relate to nursing practice, can be enhanced by using group work as a learning process as it allows undergraduate students who use this approach, have to deal with conflict/consensus that arises within their learning groups as they work together. It requires them to work conjointly with other people and when these skills are learned they are more easily transferred and applied to the workplace as graduate nurses (e.g., Spencer & Monahan, 2001). This approach can also be used to assist undergraduate nurses to learn to deal with conflict and stressors intra-personally and inter-personally and to strengthen their use of emotional intelligence in a nursing context (e.g., Eunson, 2005).

Given emotional intelligence estimates in this study have an indirect influence on occupational commitment, this finding has some resonance with other studies particularly where it was found that higher emotional intelligence estimates in nurses, resulted in greater job satisfaction, an attribute contributing to the nurses' overall commitment to their employing organisation (e.g., Guleryuz et al., 2008). The role of emotional intelligence in perceiving occupational stress and preventing employees of human services from becoming about their work

is paramount. The ability to effectively deal with emotions and emotional information in the workplace assists health workers like nurses in coping with occupational stress therefore; it should be developed in stress management learning modules, particularly with the emotional skills associated with time management, goal achievement, and assertive communication skills (e.g., Nelson & Nelson, 2003; Ogi ska-Bulik, 2005). In this study, higher emotional intelligence estimates positively influenced achievement and student readiness to assume their transitional roles as a new graduate nurse. One study suggests that it is the individual's coping skills arising from their emotional intelligence, that specifically influences the individual's capacity to manage their emotions which in turn influenced GPA scores (e.g., McCann, Fogarty, Zeidner, & Roberts, 2011). While such a relationship was not found in this study, as coping mechanisms and abilities of students was not directly measured however, emotional intelligence ratings did influence undergraduate nurses' GPA scores academically, but not achievement in the clinical context. Students with positive emotional intelligence estimates are more likely to be motivated to achieve and will have greater persistence leading to achievement (e.g., Afolabi, Ogunmwonyi, & Okediji, 2009; Qualter, Whiteley, Morley, & Dudiak, 2009). Nurses, who believe themselves to be psychologically empowered about their roles and as developed by their learning, are more likely to demonstrate greater commitment to their occupation, particularly arising from the nurses' emotional attachment to their work (e.g., Ahmad & Oranye 2010).

#### 4.1 Study limitations

One limitation of this study is that estimates for undergraduate nurse levels of stress, transitional readiness and commitment were generated using self-report measures and may therefore subject to response distortion. Despite this, participant ratings using self ability and consensus estimates are very useful indicators of student affect, both in terms of the measuring intensity and direction of the affective variable being measured.

A second limitation is that the generalizability of the results of this study are limited in their scope, as all the participant data arose from the one Malaysian educational institution and could not therefore be extrapolated to other Malaysian undergraduate nurses. The outcomes of the study however, provide a foundation for further studies, where additional variables which could possibly influence nurses' occupational commitment could be incorporated and tested.

## 5. Conclusion

Malaysian undergraduate nurses' commitment to their graduate nursing occupation is strongly influenced by their readiness to assume that role, as they near the completion of their studies. Perceived stress levels as an undergraduate nurse and achievement levels all have an inverse relationship with their estimates of occupational commitment. In the absence of formal support and educational mechanisms offered to new nurse graduates in their workplaces, occupational commitment can be fostered as students as they are undergoing their undergraduate programs. Recommended educational strategies include the use of dedicated education resources to simultaneously minimise role ambiguity and respond to the affective components of nursing work. Other strategies that allow undergraduate nurses to progressively manage "work-related conflicts" by using group work, reflective practice, experiential and andragogical principles would be well regarded. It is recommended that further studies are conducted to measure the effectiveness of educational strategies such as the dedicated education unit in maximising undergraduate student nurses' occupational commitment.

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