

Factors influencing nursing learners in selecting and engaging Open and Distance Learning as a mode of study for tertiary nursing education

ABSTRACT

The study aimed to identify factors influencing learners in selecting and engaging in ODL as a mode of study for tertiary nursing education. Face to face data collection with self-administrated questionnaire using convenience sampling with response rate of 208 (64.9%) was used. Regression analysis for significant value for the ANOVA with $p > 0.01$, show that the result for this study is a valid model. The results indicate that *environment factors* is a significant variable that influence the OUM nursing learners' choice in selecting ODL as a mode of study among nursing learners for their tertiary education. Learners that came into the ODL system views the support of technology as the factor that make them chose ODL.

Keyword: distance learning, open-distance learning, nursing education, nursing.

Introduction

Nursing being a dynamic profession has evolved immensely over the years. It started with Rufaidah binti Sa'ad, the first Muslim nurse who started the first nursing school (Kasule, 1998). It was unstructured and informal education. After Rufaidah came Florence Nightingale. Nursing education became more structured and formal. Today, nursing education has progressed in aspects of academic qualification from certificate to doctoral level. The mode of teaching has also evolved from conventional class room face to face teaching and learning to technological focused using open and distance learning (ODL). As demand for education increases with the advancement of technology, technological teaching has becoming more cyber friendly including ODL. Today ODL mode of learning is used worldwide and has captured people of various socio-demographic backgrounds.

In Malaysia, the ODL was introduced in 2001 by the pioneer of ODL, Open University Malaysia (OUM) despite the skepticism from pro-conventional learning mode. Since its launch, the ODL mode has gained enormous popularity among the working adults who wish to return to education without having to leave their employment and family. The ODL mode provides greater flexibility for instructional scheduling that is structured around the normal working hours of most of the learners.

Nursing program in OUM using the ODL mode started in 2007 offering post registration Bachelor degree. Though the recognition of ODL is worldwide, in Malaysia, particularly nursing, the acceptance from potential students and employers towards ODL mode is still low. There are many influencing factors for nursing students in selecting or not selecting Open and Distance learning. Thus, the aim of this study is to explore factors that influences among OUM's nursing students in selecting and engaging in ODL as a mode of study for tertiary nursing education.

Problem Statement

The online or blended learning for tertiary education has grown significantly globally. This mode of learning is attracting adults who were left out from tertiary education and new generations of learners, the X, Y and Z who are technological savvy that prefer ODL mode. Nursing program is one of the program that now offering ODL mode. Nursing is a highly skill program, which once seem impossible to use the ODL system previously. But the mode has proved to be as good as conventional face to face class room teaching. In Hong Kong Open University, nursing program is offered for both direct entry and post registration students. The ODL mode of Open University Malaysia (OUM) use

blended learning pedagogy which is face to face, self-managed learning materials, and on line discussions and all are well guided. The OUM nursing program is Ministry of Education and Malaysian Qualification Agency approved.

Nevertheless, ODL is least accepted and it has negative acceptance by Malaysia nurses and employers, including nursing leaders and educators, which may be the contributing factors for enrolment in the program, who preferred face to face class room education/ full time study style. The interested nurses, with heavy work and shift duty, but want to further their education, find it difficult to attend face-to-face classes or on full time study. On the issue of technology, despite the advanced technology in Malaysia, as an ODL mode provider, the internet connectivity and support is also hindering factors to a more successful study which frequent concerned by learners. These factors are contributing to the success of any student enrolling on ODL program. Munich (2014) showed that support-information, instrumental (technologies), emotional and affirmation are essential for learners to complete their online program.

The ODL mode is attracting nurses in country where the use of technology is limited and lack of technology experiences as in example in Davies, Amewonye and Gross (2015). Davies studied Ghanian nurses with no online education experience show interested in blended online courses using a combination of one or more classroom meetings supplementing the online course delivery, aid discussions, and fosters collaboration. Matyr's (1998) study suggested that a forum is useful to overcome many of the difficulties and making electronic teaching and learning a more profitable and fulfilling experience for those who participated.

Literature review

ODL has been in existences and contributes to many success outcomes in terms of the program offered, academic achievement and technology used. It has been widely accepted and recognized in higher education in almost all disciplines including nursing. It was said the ODL has become the "new normal" mode of study (Brown, Hughes, Keppell, Hard & Smith, 2015). There are many pulling and pushing factors why students select ODL as their mode of study at tertiary education including the nursing students.

Environmental factors

Technology and social networking

With the arriving of the personal computer and internet, ODL has led to a revolution to further support the distance education by all disciplines (Watts & Waraker, 2008). Legg, Adelman and Levitt (2007) suggested that the flexibility of online distance learning is particularly appealing to registered nurses, to obtain a higher degree without having to leave their full-time position. Brown et al. (2015) study showed students reported that in terms of digital literacy, it had shown that it reasonably comfortable using the online learning environment.

The use mobile devices, particularly by young people, offer new and exciting possibilities for learning. Learning with mobile devices or m-Learning has attracted researcher that focused on specific pedagogical applications the potential of the devices (Kukulska-Hulme, 2007). Fahad (2008) showed that mobile devices were used extensively by students to meet a learning objective using mobile technologies.

Online interaction is a tool for a successful ODL mode in teaching and learning (Davies et al., 2015). The high degree of flexibility, without making trips to class for face-to-face gives students opportunity to cope with the competing priorities of housework, home, and school (Brown et al., 2015). The flexibility, make it more convenience that encouraged active participation in online learning environment. However, the flexibility in using the technology for interaction varies

according to the socio-demographic background of the learners, namely professional careers, personality, age and cognitive learning style.

Community support

The concept of community and a strong sense of community are important in online learning to enhance student engagement and improve learning outcomes (Gallagher-Lepak, Reilly & Killion, 2009). A study by Gallagher-Lepak identified 15 factors relevant to the community of online process and was clustered into three; structural factors, processual factors, and emotional factors. The structural factors include classroom structure, required participation, teamwork, and technology. The processual factors are becoming, commonalities, disconnects, mutual exchange, online etiquette, informal discussions while the emotional factors are, aloneness, trepidation, unknowns, verbal communication, and anonymity. The emotional structure example is nonverbal communication involved the lack of face to face communication which requires at times. Some similarities were also identified in a study by Hyde and Murray (2005), Reilly, Gallagher-Lepak and Killion (2012) studies show some similarities with Gallagher-Lepak et al. (2009) where students were in a state of “Lifeworld lamented”, a sense of isolation related to the lack of support. Reilly et al. (2012) finding stated that aloneness as factor isolating learners in ODL mode.

Interactional online support

Moore (1989) outlined three types of interactions ODL framework. There are learner-content interaction, learner-instructor interaction, and learner-learner interaction. Recent studies in various fields such as education, business and nursing supported Moore’s finding (Melrose & Bergeron, 2007; Munich, 2014). Melrose and Bergeron (2007) mentioned about attributes of educators that contribute to nursing students’ online learning, such as the ability to develop relationships, prompt feedback, engage with students during online interaction and facilitate networking. A study had looked at how the educator positively influences the students’ experience with the teacher (Melrose & Bergeron, 2007). The students were more likely to stay in a course if they have effective relationships with the educators (Atack, 2003); educators provide a caring environment and detailed feedback on assignments (Mann, 2014); educators were consistently online, answered students’ questions promptly, encouraged networking, and supported students to resolve group work conflict (Melrose & Bergeron, 2007).

Personal Self-regulated learners

The role of the student transforms from a passive recipient to an active learner which ultimately makes them assumes responsibility for learning; a self-motivator, committed to learning; autonomous learner with self-discipline; self-directed learner and good time management (Mancuso-Murphy, 2007) Similarly, a later study by Watts and Waraker (2008) also focused on the motivational factor of personal; efficacy and personal goal orientation made the nursing students became more independent besides being self-disciplined. However to be successful in ODL, students need to be persistence in using the facilities offered such as e-forum discussions (Hart, 2014).

Autonomy is an important factor in academic success. Self-regulated learners need to set their goals and employ appropriate strategies to attain those goals. They need to motivate themselves and focus on learning in the face of distractions (Hyde & Murray, 2005). Zimmerman (1989) in Tang (2006) also has pointed out that self-regulation enables the development of lifelong learning skills. Tang (2006) in highlighted learner autonomy plays an important role in ensuring successful distance learning.

Student persistent in ODL also has positive correlations with motivation, supportive family, financial support, realistic expectations, high-quality course content and strong social connectedness (Hart, 2014). The delivery of information allows students to review the posted materials over and over

again; therefore, students able to progress at their own pace to meet personal learning requirements (Mgutshini, 2013). A qualitative study by Melrose and Gordon (2008) suggested that ODL helps to vocationally educated nurses who lack theory in practice and also improve knowledge on academic writing as it also seen in Malaysia. They also believe that distance learning mode can be a key to upgrade nursing education.

Organization support

Other contributing factor that may hinder the enrolment or success of ODL from the student's perspective is good practice on cost, tutorial supports, and materials provided (Price, 1997). Though it is an old study, the point raised still relevant today. The ODL offers learners new way of study. It needs combination efforts, good networking both in the term the use of technology and also personal networking between learners and teachers to make ODL further excel and useful to all students that are interested in learning.

DESIGN AND METHODS

Design and Study setting

This study utilized a quantitative non-experimental cross sectional survey approach using self report questionnaires. The printed survey questionnaires were distributed to the respondents face-to-face in five learning centers during the January Semester 2015. The respondents were undergraduate nursing students that were pursuing post-registration degree in nursing science in OUM. The centers identified were located in five states; Selangor, Kedah, Johor, Negeri Sembilan and Sarawak. Those five learning centers were selected due to high registration of nursing undergraduates.

Population and sample

The convenience sampling was chosen that comprise of all post- registration nursing students of learning centers that was identified. A total of 300 questionnaires were distributed to learning centers. Out of that number, only 208 complete surveys were received. Therefore, 208 data were used for analysis purposes. The response rate was 69.3%. This is relatively acceptable response rate as compared to 95% by Happell (2008) and 41.6% by Skaalvik, Normann and Henriksen (2011).

Data collection tools

The questionnaire used in this study was developed by focus group discussion among academics to review content validity of the instrument, before the questionnaires were given out to the final participants. The questionnaire consists of two sections. Section A: consist of 8 items on demographic variables. Section B: consists of total of 42 statements pertaining to three subject areas, which are personal factors that affect online and distance learning (17 items), environmental factors that affect online and distance learning (15 items), and advantages of online and distance learning (10 items). The respondents answered the statements using a five-point Likert's scale with the following choices: (1) strongly disagree; (2) disagree; (3) neutral; (4) agree; and (5) strongly agree.

Validity and Reliability

The validity of the questionnaire used in this study was checked for content validity and face validity by the academician through formal discussion. Internal consistency of the items was checked using Cronbach Alpha test and it was found that the Cronbach alpha value for personal factors and environmental factors 0.950 and 0.940 respectively. On the other hand, alpha value for advantages of ODL was 0.960. Nunally (1978) in Panayides (2013) recommended that reliability of .70 or better.

Data analysis

Both descriptive and inferential statistics were conducted according to the specific objectives. In this study, a multiple regression model is presented in order to test the proposed hypotheses. Concurrently, analysis of variance (ANOVA) was used to test the validity of the model.

RESULTS

Descriptive Statistics

Some of the sample characteristics are noteworthy as these demographic profiles of OUM nursing learners can influence the findings of this study. The average age of nursing learners involved in the study is between 36 – 40 years old. This indicates that the nursing learners of OUM are majority in their prime years. From the sample collected (n = 208), all are female participants that contribute their answers in this study. Majority of them are staff nurses (67.8%) working in public hospitals (64.9%). This explained that the average income of the nursing learners ranges between RM2,000 to RM4,000 (52.9%) which measures the social status of the nursing learners from public sector, especially as staff nurses. In relation to professional qualification and years of working experiences in nursing, 51.9% have post-basic nursing education and 52.4% have more than 10 years working experiences. These findings indicate the staff nurses with many years of experiences were still enthusiastic to engage themselves in lifelong learning.

Regression Analysis

Significance value for the ANOVA ($p < 0.01$) in Table 2 indicates that the result for this study is a valid model as according to Chin, Marcolin and Newsted (1994). Table 1 reported the R square value of 0.351 indicates the goodness of fit for the regression model.

Table 1: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.597 ^a	.357	.351	.49395

Table 2: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	27.767	2	13.884	56.904	.000 ^a
	Residual	50.017	205	.244		
	Total	77.784	207			

A preliminary t-test was performed to ensure the significance level of the *personal factors* and *environmental factors* (Table 3 and 4). *Personal factors* shown t-test of 1.409 ($p = .160$) and *environmental factors* reported t-test of 5.683 ($p = .000$). These results indicate that *environmental factors* were significant in relation to the learners' choice in selecting and engaging in ODL as mode of tertiary nursing education. However, *personal factors* was not significantly influenced their choice. Therefore, there was no relationship between influence of *personal factors* and choice of engaging in ODL mode.

Table 3: Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.594	.251		6.360	.000
Personal factors	.138	.098	.123	1.409	.160
Environmental factors	.521	.092	.497	5.683	.000

Dependent: advantages of online and distance learning (ODL)

Table 4: Hypothesis Statement

No	Hypotheses statement	Results
H1	There is a relationship between personal factors and advantages of ODL	Not significant
H2	There is a relationship between environment factors and advantages of ODL	Significant

DISCUSSION

In this study, the results indicate that *environment factors* is a significant variable that influence the OUM nursing learners' choice in selecting ODL as a mode of study among nursing learners for their tertiary education. As aforementioned, ODL mode of learning is mainly depends on technology. Good information system through technology will provide good students support, be it online discussion, tutor's feedback, conference, online grading or e-library, are core elements of ODL mode. Several publications have suggested that ODL with blended learning will contribute to better learning performance, positive learning experiences, and better self-direction in professional learning, especially for nursing learners (Legg, Adelman & Levitt, 2007; Melrose & Gordon, 2008; Hsu & Hsieh, 2011). Good online support also will enhance the learning experiences because the learners in ODL mode will not have to leave their families and other personal commitment. This is because, as adult learners, higher degree of flexibility in learning is the paramount in their effort to juggle with family, work and personal. Thus, issues of convenient in any time, any place and own pace will be the adult learners' centre of debate (Dzakiria, Mohd Idrus & Atan, 2005; Brown et al., 2015). Nevertheless, *personal factors*, such as being self-regulated learners, being autonomous learners, persistency and good peers support do not influence their choice in engaging in ODL mode. Undoubtedly personal factors play an important role in ODL mode, however, in this study, our findings contrast with existing literature. This is probably explained being adult learners in OUM, whom were in their prime years with many years of working experiences; choose to engage in ODL mode due to high self-motivation in pursuing lifelong learning. Therefore, *personal factors* were longer significance in this study.

CONCLUSIONS AND RECOMMENDATIONS

From the results of the study, *environmental factors* is important factor that influencing OUM nursing learners when come to their choice in selecting ODL as learning mode for their nursing tertiary education. The environmental factors are such like flexibility, near to home and work place, student friendly learning materials, easy to use information system, information sharing is convenient at any place and time, multiple resources to support the learners, and others. As pioneer in ODL in Malaysia, OUM offers the working nursing adult learners to opportunity to further their nursing tertiary education. In this notion, it is a human capital investment for healthcare industry in Malaysia to have more knowledgeable nurses. This study clearly indicates that ODL has been the nursing learners' choice in fulfilling the nurses' personal or professional development, particularly in Malaysia. Therefore, OUM should emphasized greater efforts to these environmental factors in order to enhance

nursing learners' decision in selecting ODL mode as their choice in their nursing tertiary education and embarking on life-long learning. Needless to say, even though acceptance of ODL is still a debate among other nursing authorities, the journey is yet to be started in any ODL institutions.

Acknowledgment

The authors would like to thank the supportive faculty members for their contribution to the study, namely Professor Dr. Faridah Hashim, Associate Professor Saedah Muda, Mr. Rames Prasath A/L Mahatam Rai, Pn. Rosnida Abu Bakar, Pn. Aniszahura Abu Salim, Pn. Noor Asiah MD. Noor and Pn. Zaima Mat Yusuf.

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