

The Mediating Effects of Peer and Parental Encouragement on Student's Choice of a Nursing Education

The effects of
Peer and Parental
Encouragement

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Ching Li Gwendoline Tan-Kuick
Southern Cross University, Singapore, and
Keith Yong Ngee Ng
Southern Cross University, Singapore

Abstract

Purpose – This paper explored whether current external stimuli-focused marketing strategies can be enhanced with greater emphasis on the external stimulus of Education and career aspiration and peer and parental encouragement and nursing student's enrolment choice, were dissected and examined.

Design/methodology/approach – 1200 students were invited to participate in the study. 798 students responded to the invitation by completing a self-administered survey.

Findings – The findings indicate that i) education and career aspiration, ii) socio economic status, iii) personal ability and iv) peer and parent encouragement have significant influence in the selection of a nursing tertiary education in Singapore.

Research limitations/implications – All of the data are self-reported, from a single source, and obtained from the same method (i.e. a five-point Likert scale), thereby bringing into question the effect of common method bias. However, a single-component test shows that the majority of the covariance between the constructs is not due to common method variance.

Practical implications – This paper will propose external stimuli-focused marketing strategies to target these factors identified in order to enhance student's enrolment choice of a nursing tertiary course.

Originality/value – This paper contributes to the literature by being the first to examine factors that influence student's enrolment choice of a nursing tertiary course in Singapore.

Keywords - Nursing, Education and Career Aspiration, Socio Economic Status, Personal Ability, Peer and Parental Encouragement, Student's Choice

Paper type - Research paper

1. Introduction

Tertiary recruitment is high on the agendas of the local health care education industry scene and all are committed to increasing the number of student recruitment in the institutions. It is important to know the factors that constitute the popularity of a course choice in comparison with others (Hossler, Schmit and Vesper, 1999). The complexity of the student choice in choosing nursing course as their tertiary education is reflected by the diversity of published research. There is a widespread recognition of factors such as positive career and education aspiration (Brennan, Best and Small, 1996; Liegler 2000; Scanion, 2003), personal ability of the student (Beggs, Bantham and Taylors, 2008) and peer and parental encouragement (Scanion, 2008; Harrigan, Gollin and Casken, 2003; Law and Arthurs, 2003) that aid students' decision making process. The pressure put on the socio-economic status of nursing continue to reflect negatively (Paa and McWhirter, 2000, Brodie, Andrews,

Andrews, Thomas, Wong and Rixon, 2009; Rognstad, Aasland and Granum, 2004) not only lead to poor selection choice but also have implications for institutional enrolment number. Like many studies, local secondary school leavers are faced with a wide variety of factors that influence their enrolment decision. This study intends to examine the influence of i) education and career aspiration, ii) socio economic status, iii) personal ability and iv) peer and parent encouragement on the student's choice of selecting nursing tertiary education. Specifically this paper will propose external stimuli-focused marketing strategies to target these factors identified in order to enhance student's enrolment choice of a nursing tertiary course.

2. Social Economic Status and Student's Choice

Low expected pay was ranked second amongst fifteen variables that affected the school leaver's choice of nursing as higher education (Beggs et al., 2008). Consistently in a descriptive study done by Law and Arthur (2003) suggested that many students harbored a view that nursing is a low-status profession that does not generally command respect thereby leading to the notion that nursing is not a good choice for higher study. However, another study indicated that job security was the prime reason why school leavers choose nursing as their higher education and career (Brodie, et al., 2009). A similar result was reported in a correlation study by Rognstad, Aasland and Granum (2004), and Williams, Wertenberger and Gushuliak (1997). In essence, the effects of job security, nursing image, sexual stereotypes and wages impact local student's choice for nursing education. In other words, social economic status has a direct influence on student's choice of nursing as a career. It is thus posited that:

H1: Social Economic Status is positively correlated with Student's Choice.

3. Education and Career Aspiration and Student's Choice

Scanlon's (2008) study indicated that young college leavers were found to own career and education aspiration about nursing and have dissuaded them from taking nursing as their tertiary study. Other studies, such as Brennan, et al., (1996), suggest that when considering nursing as a career, students tend to view nursing as a rewarding and challenging profession. Potential nursing students indicated that they enjoy caring and helping others as the most frequently stated reason why students chose to enroll in the nursing program (Liegler, 2000). In Singapore, the available nursing career choices for registered nurses include teaching, research, healthcare management and business enterprises. Local academic advancement for registered nurses ranges from diplomas, advanced diplomas, bachelor and master degrees. Various overseas doctoral and degrees are possible educational advancement for registered nurses. Strong education and opportunities and highly employable are two main motivations why school leavers enroll in nursing programme (Boughn, 2001). Therefore, it is plausible that:

H2: Education and Career Aspirations is positively correlated with Student's Choice

4. Peers and Parental Encouragement and Student's Choice

Parental influence plays a substantial part on students' choice of nursing study (Beggs et al, 2008). Parental influence was found to feature strongly in affecting the choice of choosing nursing as a career. These results were consistent with a recent study by Law and Arthurs (2003) that reported 28% of high school students were interested in studying nursing, and that their choice was significantly influenced by parental influence. Harrigan et al (2003) identified parental pressure as the major factor in preventing the Native Hawaiian, Samoan and Filipino students from choosing nursing as their career. A similar study by Paa and McWhirter (2000) studied the extent to which peer pressures have on high school students' career choices. They reported that peers and parental influence do significantly influence the students' eventual choice, especially in circumstances when the specifics of the course program are not familiar to them. Given the importance of peers and parental

encouragement influence on student's choice, it is therefore suggested that:

H3: Peers and Parental Encouragement is positively correlated with Student's Choice

5. Social Economic Status, Peers and Parental Encouragement and Student's Choice

In the still prevailing Confucian's ethnos of Singapore society, parental influence evolved around the children decision making process, starting from young to adolescent and ever when the children has reached adulthood. Asian parental influence plays a significant part on the children's education and their desire for them to pursue higher education for a secure and professional career in the near future.

A study done by Joseph and Joseph (1998) concluded that combination factors with family and peers influence shaped the intention of students pursuing higher education. Bowers and Pugh (1972) reiterated the joint positive influence of family, socioeconomics and student's academic ability as strong indicators of enrolment for higher education. In line with this argument, the following hypothesis is proposed and is depicted in Figure 1:

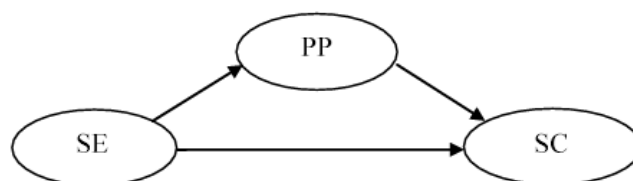
H4: Peer and parental encouragement mediates the relationship between socio-economic status and student's choice

6. Education and Career Aspiration, Peers and Parental Encouragement and Student's Choice

Education and career aspiration and peer and parental encouragement formed the external stimuli for the influence exerted on nursing students' choice of study. The Ministry of Education in Singapore had already implemented a series of multifaceted marketing approaches to cater to the rapidly changing landscape in college students, targeting predominantly the external stimuli including the students' rapid adoption of new technology, need for more personal communication and heightened career expectations.

In Singapore, success is measured by the academic and career achievements. This is socially and domestically acceptable in the growing process of many local children. We argue that children of different social upbringing may have a different degree of aspiration to high level educational and career goals. The perceived importance of higher education for Singaporean may be similar to the overseas students. There are a few studies that established the factors and interrelationships of factors including parental & peer encouragement as intervening variable that predicts the student's choice (Sewell and Shah 1978; Hossler and Lynch 1981; Ivy 2001). Based on the preceding rationale, the following hypothesis is proposed and is depicted in Figure 2:

H5: Peer and parental encouragement mediates the relationship between Education and career aspiration and student's choice.



Note: SE = Socio Economic Status, PP = Peers and Parental Encouragement, SC = Student's Choice

Figure 1.
The Mediating Effect of
Peers and Parental
Encouragement on the
relationship between Socio
Economic Status and
Student's Choice

7. Method

7.1 Research context

The research aims to contribute by clearly addressing the possible knowledge gap; identifying the internal and external factors that have pushed local students to enroll in the nursing program, and seeks to serve a provocative role in explaining Singapore health care education enrollment effectiveness.

This study adopts a quantitative descriptive design and is exploratory. In selecting the population for participation in this study, an attempt was made to select a nursing school showing diversity of student populations. The Health and Life Sciences School in a Singapore Polytechnic was selected as the sample. The choice institute is the pioneer in providing healthcare tertiary education in Singapore. It is a comprehensive tertiary institute that offers college healthcare programs in more than 40 academic and professional fields. The reputation of the institution as a centre of learning has attracted many students from Singapore and foreign countries. Permission was granted by the Director of the School and the institutional ethics committee to survey students.

7.2 Participants

In response to the nature of this study, only nursing college students were invited to participate in this study. The population for this study consisted of Year one to three students whom are currently pursuing their three years Nursing Diplomas during the second semester of 2009. The sample was chosen for its heterogeneous mix of students and ease of access. A total of 1200 students were invited to participate in the study. However, only 798 students responded to the invitation; completed and returned the questionnaire.

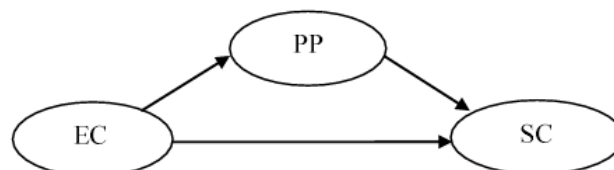
7.3 Measures - The questionnaire design

The questionnaire was divided into 3 main parts. The first part required respondents to provide some demographic information such as gender, age, ethnicity and number of years in pre-college education. Part two of the questionnaire measured the effects of social economic status, education and career aspiration and peer and parental encouragement on student's choice using a five-point Likert interval scale: Strongly disagree (1), Disagree (2) Not sure (3) Agree (4) Strongly agree (5). On the basis of previous studies (e.g. Beggs et al., 2008; Boughn, 2001; Harrigan et al, 2003), 27 items were identified (see the Appendix). The questionnaire was pre-tested on several people to determine whether the layout and instructions provided and the items were easily comprehensible. Slight changes were made to the layout of the questionnaire (e.g., shading alternate items and using "SD", "D", "N", "A" and "SA" instead of numbers on the Likert scale) to improve the clarity of the questionnaire.

7.4 Procedure

The students were invited to complete the questionnaire in the lecture auditorium or tutorial classroom. Only primary data were gathered from the individuals for this study. To achieve better response rate, the researcher had personally visited lecture and tutorial venues to administer the questionnaire packages for the participants. The questionnaire packages were administered without the participants having prior knowledge of the conduct of the study. This was to ensure that their responses would be spontaneous, and to increase the probability that their responses reflected their true feelings.

Figure 2.
The Mediating Effect of Peers and Parental Encouragement on the relationship between Education and Career Aspiration and Student's Choice



Note: EC = Education and Career Aspirations, PP = Peers and Parental Encouragement, SC = Student's Choice

A package consisting of a cover letter, consent form and a 27 items questionnaire for this study was administered. The cover letter and consent form stated the purpose of this study and highlighted that all data received from the participants would be kept anonymous and confidential and that the participants were informed that they can withdraw from the study at any time. The students had also been reassured that non-participation will not have an impact on their school grades, and that no questions of the sensitive nature will be included. The language used in all documents in the questionnaire package were kept simple and written in English. The Survey was conducted mostly during the student's free period; this induces the participants to complete and returned the questionnaire. Return envelopes were given to a volunteer student from each class with specific instructions to collect all the forms at the end of the classes. The completed forms were picked up by the researcher personally from each volunteer.

8. Results

The study covered 24 items that students rated important were subsequently divided into four different factors categories, namely; education and career aspiration (EC), personal ability (PA), socio-economic status (SE) and peer and parental encouragement (PP). 3 items were used to measure student's choice (SC). Descriptive analysis was used to calculate the means and standard deviation for each of the four composite mean.

The composite mean for EC factor was 1.91, indicating that, on average students considered factors such as Acceptable tertiary education (M=1.96), positive education and career advancement (M=1.99 and 1.98 respectively) are important factors when they consider nursing study as their tertiary choice. The internal consistency of the composite variable displayed adequate homogeneity with only one component with eigenvalue = 3.615. Cronbach alpha of the composite measure = 0.868, represents a high level of reliability.

The composite mean for the SE factor was 1.8 indicating that, participants believe positive socio-economic status such as nursing is a profession that exercise great autonomy (M=1.96), commends respects and recognition (M=1.99) and provides opportunity for growth (M=1.89). The internal consistency of the composite variable displayed adequate homogeneity with only one component with eigenvalue = 2.83. The Cronbach alpha of the composite measure = 0.803, represents a high level of reliability.

For the PP encouragement category, four factors were identified as important influence of student's choice. Parents believe that nursing is a reliable and rewarding career (M = 4.13) and friends consider that nursing is appealing (M=4.11). In contrast, the participants' friends believe that nursing is a female profession (M=2.49) and the only factor that students placed as their least concern. The internal consistency of the composite variable displayed adequate homogeneity with only one component with eigenvalue = 2.76. The Cronbach alpha of the composite measure = 0.845, represents a high level of reliability.

A series of statistical analysis were conducted and the local influence factors and student's choice concluded the following findings: EC and students' choice ($r = 0.383$, $p < 0.005$), SE and student's choice ($r = 0.483$, $p < 0.005$) and PP encouragement and student's choice ($r = 0.393$, $p < 0.005$). The results indicate that H1, H2 and H3 are all supported.

Further analyses were also conducted using PP encouragement as a mediator on the relationships between social economic status and student's choice, and between education and career aspirations. An important finding involves the effect that PP encouragement holds in explaining the relationship between predictors and student's choice. Regression analyses were conducted using simultaneous entry to which the relationships between factors (SE & EC) and student choice were mediated by PP

encouragement. The effects on student choice were controlled by using the residual scores obtained from regressing student's choice on gender, age, ethnicity, and years in pre-college education. All subsequent analyses used the controlled scores for student choice.

Using Judd and Kenny's (1981) procedure, which involves meeting the following three conditions: i) the independent variable must predict the dependent variable; ii) the independent variable must predict the mediator; and iii) when the independent variable and the mediator are used to predict the dependent variable, the mediator must be significant. However, the first condition is not essential for demonstrating mediation effects (Kenny, Kashy and Bolger, 1998). Partial mediation occurs when the independent variable is a significant predictor in the third condition and full mediation occurs when it is not (Judd and Kenny, 1981).

Socio-economic status significantly predicts student choice ($b = .71, p < .001$: Condition One met) and peer and parental encouragement ($b = .55, p < .001$: Condition Two met). Student choice (SC) was then regressed on socio-economics ($b = .59, p < .001$) and PP ($b = .22, p < .001$): Condition Three met. Peer and parental encouragement thus partially mediates the relationship between Socio-economic and student choice; H4 is therefore supported. The indirect effect of Socio-economic on student's choice via peer and parental encouragement is significant ($S = 4.1, p < .001$), according to Aroian's version of the Sobel test, in which the product of the standard errors for the regression coefficients for Socio-economic and peer and parental encouragement is not assumed to be negligible.

Education and career aspiration significantly predicts student choice ($b = .62, p < .001$: Condition One met) and peer and parental encouragement ($b = .34, p < .001$: Condition Two met). Student's choice was then regressed on education and career aspiration ($b = .59, p < .001$) and peer and parental encouragement ($b = .09, p < .001$): Condition Three met. Peer and parental encouragement thus partially mediates the relationship between education and career aspiration and student choice, H5 is therefore supported. The indirect effect of education and career aspiration on student choice via peer and parental encouragement is significant ($S = 5.4, p < .001$), according to Aroian's version of the Sobel test, in which the product of the standard errors for the regression coefficients for education and career aspiration and peer and parental encouragement is potentially significant.

9. Discussion

Whitehead's (2007) study stated that knowing someone in nursing did not significantly influence the student's choice of a nursing study. However this paper indicated that the importance of positive peers and parental encouragements has an influence on the local student's choice. The research proceeded to confirm that peer and parental encouragement may function as a mediator to the extent that it serves to clarify the nature of the relationship between predictors (SE & EC) and student's choice.

With reference to Baron and Kenny's (1989) explanation, a very important contribution of this research is the finding of peer and parental encouragement as a mediator variable that strengthens an understanding in explaining the correlation between predictor and student's choice. The rationale for peer and parental encouragement amongst the factors is because secondary school leavers are mostly at their adolescence stage when they are socially dependent on friends and financially dependent on their parents. In addition, Singapore social and family upbringing still revolves around the fundamental principle of Asian conservatism which is strongly rooted in Confucius' teachings; where the old and wise lead and guide and the young look up to their parents for life-changing advice. Irrespective of the family background, Singapore parents play a significant role in their children's plans for formal education at various stages.

Most parents also impose on their children the notion that education with better

career security is a better outcome of college choice. This association is quite logical since parents of the current secondary school leavers are beneficiary from the post war Singapore which has place significant emphases on education. They are the first generation of parents whom are brought up to believe that good match of education and career advancement are primal to survive and sustain in a professional orientated employment environment such as Singapore. Moreover, local parent also provide monetary support for education and usually influence the student's decision as well (Hu & Hossler, 2000).

The results of this study contribute significantly to understanding what constitutes the key predictors of positive influence in student's choice; particularly in the choice of choosing a nursing study as tertiary education. This may allow further refinement of the overall enrollment strategies:

- 1) Market segmentation to allow proper target audience
- 2) Designing a curriculum that can allow students to achieve more
- 3) Trust and utilize the strengths of the youth

8.1 Market segmentation to allow more personal and relevant marketing

Stage and Hossler (1989) stated that parental influence is consistent encouragement over many years, and parents rely on their specific aspiration for their children. However, influence from peers is strongly based on their experiences and self-reports. While much of the current marketing effort has been on attempting to recruit all students of every of socio economic backgrounds and academic abilities, the findings from the current study' may require institutional marketers to reconsider their promotional campaign. Considerations could be made to segment the targeted population to include not only the students but also their parents. The institution could begin by making the culture of nursing education more comprehensible and transparent to the target population. Such an endeavor would help to start a platform to track and interact with these target population, starting to build one-to-one relationships hopefully able to alert the institution to modify the marketing strategies, and permit a higher level of engagement to promote the nursing curricula and career.

8.2 Designing a curriculum that allow students to achieve more

The factor that came up strongly in the influence category is education and career advancements. The students expect that their education will not only groom them into caring and capable nurses, but also provide avenues for them to evaluate their own values, skills and potential, so that they can take control of their careers and future goals to become a more valuable component in the healthcare professional team or as a whole. These are important points for the educationists to ponder.

In truth, there are areas in the existing diploma nursing curriculum which can be improved. Beyond imparting nursing knowledge and skills, it is important that the course also promote dynamism, such as entrepreneurial aspect, technological or ever early specialization which is crucial in the today healthcare paradigm. Perhaps the initiatives that encourage a nursing course can improve and expand the quality of the enrollment. Additionally, students also expect their diploma nursing curriculum to prepare them for higher learning and greater responsibilities that are essential with career advancement. Be it adding value to the old curriculum or reinventing a new product, designing a curriculum that allow students to achieve more could give rise to new possibilities to have desired students apply and eventually enroll.

8.3 Trust and utilize the strengths of the youth

As more healthcare education institutes enter the market, the marketplace becomes more diverse and competitive. This study indicated that 'peer and parental encouragement' features strongly as positive influence factors in student's choice. Moving the publicity from a generic generalized brochure approach to targeted relationship management, with individuals who are likely to be able to exert some

kind of influence on the potential nursing students' choice are more likely to deliver long-term sustainable market share (Stewart and Felicetti, 1991). Therefore, Institution marketer may want to consider focusing on 'peers and parents outreach programs' in addition to the current secondary schools outreach programs to gain that competitive edge. Additionally, the current yearly Polytechnic Open House Event can also be enhanced, such as with a 'bring a friend' initiative, whereby each of the currently enrolled nursing students are encouraged to invite one or more of their respective secondary school juniors to attend. If logistics permit, the initiative can also be extended to include other regularly conducted polytechnic academic or social activities. Bringing this level of visibility to prospective students by peers that they know and trust can only be positive.

Currently, all marketing exercises on enrollment are planned and implemented by management and teaching staff. This study suggests that it may be time to let students have a leading role and allow management and teaching staff to take on the role of mentors and facilitators. In this way, the creativity of the students can be better utilized and there is no generation gap to be bridged. The nursing students would probably have a better traction with their peers and can attract a higher level of participation. Having a healthy relationship and a strong mutual trust between the academia and the students will provide a powerful message for potential candidates.

A concurrent sub-event can still be led by the management and teaching staff to cater specifically to parents or friends of parents who may want to seek a higher level of discussion into academic goals, advancements and career paths. This aspect had been lacking in traditional marketing drives, and is likely to be well-received.

10. Conclusion

The paper studied the factors that influence Singapore secondary students' choice for healthcare tertiary education. The study clearly addressed the knowledge gap; identifying the internal and external factors that have pushed local students to enroll in the nursing program, and seeks to serve a provocative role in explaining Singapore health care education enrollment effectiveness. The results of peer and parental encouragement as the push factor to choose nursing as their tertiary education has considerably diverged from international paper. This is of significant theoretical and practical importance in the way that it improves the fundamental knowledge bases that can be utilized by industry to enhance the effectiveness of existing enrollment activities and promote more student-centric marketing events.

11. Limitations

This has several limitations due to the nature of its research design. Firstly, all the data are self-reported from a single source and obtained using the same method (i.e. a five-point Likert scale) thereby bringing into question the issue of common method bias. However, a single-component test shows that the majority of the covariance between the construct is not due to common method variance. Secondly, the study is cross-sectional and therefore cause-effect relationships cannot be fully tested. Lastly, all respondents were students from one local polytechnic in Singapore. The generalisability of the findings to other populations is therefore questionable. Future studies that examine the hypotheses using samples from different cultures would help to shed light on the relationships between education and career aspiration, socio economic status, personal ability, peer and parent encouragement on student's choice.

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Appendix. Measure of education and career aspiration, socio economic status, personal ability, peer and parent encouragement and student's choice

Items used to measure education and career aspiration

- 1 *Nursing study enables one to gain an acceptable tertiary education and appreciation of ideas.*
- 2 *Nursing study allows me to learn more about things that interest me.*
- 3 *Nursing study prepares me for my chosen career.*
- 4 *Nursing provides extensive job mobility and opportunities.*
- 5 *I am positive of my career advancement in nursing.*
- 6 *I am positive of my education advancement in nursing.*

Items used to measure socio economic status

1. *Nursing is a caring and helpful profession.*
2. *Nursing is a challenging and exciting profession.*
3. *Nursing is a professional that exercise great autonomy.*
4. *Nursing commends respects and recognition.*
5. *Nursing provides job security.*
6. *Nursing is a stressful and demanding profession.*
7. *Nursing provides opportunity to grow professionally.*

Items used to measure personal ability

1. *I have always wanted to be a nurse.*
2. *I am capable of caring and helping others.*
3. *I am able to understand others in need.*
4. *I am able to cope in demanding and stressful environment.*
5. *I enjoy meeting people.*
6. *I have good interpersonal skills*

Items used to measure peer and parent encouragement

1. *My parent(s) believes(s) that nursing is a reliable and rewarding career.*
2. *My parent(s) is/are positive about nursing education.*
3. *My friend(s) think(s) that nursing is an appealing profession.*
4. *My friend(s) think(s) that nursing is a female profession.*
5. *My friend(s) is/are positive about nursing education.*

Items used to measure student's choice

1. *Nursing is my first choice of tertiary education.*
 2. *Nursing is my first choice of career.*
 3. *I am satisfied with my education choice*
-