Factors associated with students deciding to study Pharmacy or Medicine at the Faculty of Health Sciences, University of Puthisastra, Cambodia

Sin Chea, Sophoarm Chhea, Keo Phanha Soeung, Channeth Meng, Chantrea Khoy, Sokanha Mov, Sorida Prak, Sovannaroath Tang, Sokunvary Oeung, Voleak Nov, Voleak Yin, Huykhim Ung, Koemlin Roum, Samell Keo

Department of Pharmacy, Faculty of Health Sciences, University of Puthisastra, Cambodia

Introduction

Universities in Cambodia

**Figure 1: Categories of universities in Cambodia**
Faculty of Health Sciences covers 6 departments as the following:

1. Department of Pharmacy
2. Department of Medicine
3. Department of Medical Laboratory Technology
4. Department of Dentistry
5. Department of Nursing
6. Department of Midwifery

The schools of health sciences of Cambodia have traditionally been influenced by French colony.

Cambodia works hard to implement the method of student-centered learning.

This reform elevates the number of enrollment (*indicated by 5501 health-care businesses*).

After high school, student made decision to study at health science academic institutions.

However, the reasons behind this decision remain unclear.
This study is to investigate the factors associated with students deciding to study majors of Pharmacy or Medicine at Faculty of Health Sciences, University of Puthisastra, Cambodia.

The study was designed as the “Descriptive-survey” focused on high school graduates who submitted their application at Faculty of Health Sciences (FHS) of University of Puthisastra (UP).
The study was conducted in FHS, UP, located in Sangkat Boeung Raing, Khan Daun Penh, Phnom Penh city, Cambodia.

There are six departments under FHS: (1) Pharmacy; (2) Medicine; (3) Medical Laboratory Technology; (4) Dentistry; (5) Nursing; and (6) Midwifery.

FHS mainly aims to produce highly capable graduates with strong skills and knowledge in health care and pharmacological industries.

“Structured Questionnaire” was constructed and concentrated in three major topic areas:

1) Awareness of UP;
2) Respondents’ relatives studying in UP; and
3) Reasons behind the respondents’ decision in studying at UP.
Data was collected from 26th September till 04th October 2016.

Six interviewers administered the questionnaire at the site; 138 high school graduates were considered as respondents to questionnaires.

Subsequent to the retrieval of the questionnaire, the data was tabulated, processed and manipulated in Microsoft Excel 2010 to be used for data analysis.

Analysis of data was performed by IBM SPSS Statistic 22.

Program Sigma Plot 12.0 was used to transform the outputs of analysis into graphs.

The statistic techniques used in the interpretation of the analysis included frequency counts, arithmetic means, percentages, cross tabulation, Pearson chi-square test, independent sample t-test and z-test.
Results

Gender and Age of Students

Mean age of male = 19 years (±1.65)
Mean age of female = 18 years (±1.28)

30.4% (n=42)
69.6% (n=96)

Figure 2: Percentages and mean ages of male and female students upon the time of enrollment. Means of ages between male and female are not significantly different ($t_{63.545} = 1.097$, $P > 0.05$).

Results

Majoring in Pharmacy or Medicine

PM

(n=108)
78.3%

MM

(n=30)
21.7%

Figure 3: Percentages of students who enrolled for PM or MM.
Results
Majoring Decision by Gender

![Graph showing percentages of male and female students enrolling for PM or MM by gender.]

Figure 4: Percentages of male and female students who enrolled for PM or MM.

Results
Awareness of UP

![Graph showing sources of information through which students were aware of UP.]

Figure 5: Percentages and means of sources of information through which the students were aware of UP. Scale: 1-Relatives, 2-Television, 3-Website, 4-Facebook, 5-Friends and 6-Others.
Results

Relatives’ Majors at UP

![Bar chart showing percentages of majors studied by students' relatives.]

- Pharmacy: 42.2% (n=19)
- Medicine: 17.8% (n=8)
- Medical Laboratory Technology: 13.3% (n=6)
- Nursing: 11.1% (n=5)
- Midwifery: 11.1% (n=5)
- Dentistry: 2.2% (n=1)
- Information Technology: 2.2% (n=1)

Figure 6: Percentages of majors studied by students’ relatives.

Results

Students Recommended to Study at UP by Their Relatives

Table 1: Percentages of students recommended by their relatives of each major to study at UP. Cross tabulation between “Awareness of UP,” “Relatives Studying at UP” and “Relatives of Each Major,” (X² = 12.134, df = 5, P < 0.05).

<table>
<thead>
<tr>
<th>Students recommended by their relatives of each major</th>
<th>Relatives studying at UP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Studying at UP by relatives of Pharmacy</td>
<td>39.5% (n=15)</td>
</tr>
<tr>
<td>Studying at UP by relatives of Medicine</td>
<td>18.4% (n=7)</td>
</tr>
<tr>
<td>Studying at UP by relatives of Medical Laboratory</td>
<td>15.8% (n=6)</td>
</tr>
<tr>
<td>Studying at UP by relatives of Nursing</td>
<td>13.2% (n=5)</td>
</tr>
<tr>
<td>Studying at UP by relatives of Midwifery</td>
<td>10.5% (n=4)</td>
</tr>
<tr>
<td>Studying at UP by relatives of Information Technology</td>
<td>2.6% (n=1)</td>
</tr>
<tr>
<td>Total</td>
<td>100% (n=38)</td>
</tr>
</tbody>
</table>
Results
Factors Encouraging Students to Study at FHS

Figure 7: Percentages and means of the factors encouraging students to study at FHS. Means of reasons between PM and MM are not significant different (Z = -0.162, P > 0.05). Scale: 1-Relatives’ recommendation, 2-Qualified equipment for practical work, 3-Qualified lecturers, 4-Looking good and 5-Easy passing the exam.

Discussion

- The enrollment of students in PM (78.3%) was higher than those in MM (21.7%).
- The male students (73.3%) was higher than female ones (26.7%) of MM.
- In contrast, the female students (81.5%) was higher than male ones (18.5%) of PM.
- The students were aware of UP by their relatives (Mean = 1.0, SD = 1.73).
- The students were recommended by their relatives to study at UP ($X^2 = 12.134$, df = 5, $P < 0.05$).
Discussion

- The factors encouraging students to study at UP were due to “Qualified Experimental Equipment for Practical Work” [Mean = 2.3, SD = 0.96 (PM), Mean = 2.1, SD = 1.07 (MM)].

Conclusion

- This study is concluded that the students decided to study at FHS because of “Qualified Experimental Equipment for Practical Work,” and they were recommended to enroll in FHS by their relatives studying UP.
This knowledge is a key to formulating effective enrollment strategies for not only the Faculty of Health Sciences, University of Puthisastra, but also academic health science institutions in the world.

THANK YOU FOR YOUR ATTENTION