Perceived Happiness and its Association with Demographic Characteristics among Undergraduate Pharmacy Students in Islamabad, Pakistan

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Abstract

Pharmacy profession is among the highly competitive professional degree programs worldwide which could contribute towards increased stress on students leading to low happiness levels. This in turn can result in poor physical and mental health, decreased quality of life and low levels of satisfaction. The aim of this study was to assess the self-perceived happiness and its association with demographic characteristics among undergraduate pharmacy students studying at Hamdard University, Islamabad Campus. A descriptive cross-sectional study design was used. A pre-validated tool Oxford Happiness questionnaire was self-administered to a sample of 400 Pharm.D students at Hamdard University, Islamabad, Pakistan. After data collection, data was cleaned coded and was statistically analyzed using SPSS version 21. The results of the current study reported that majority of the pharmacy students had high level of happiness. A significant difference ($p \leq 0.05$) in happiness levels of Pharm.D students was observed among different medium of instruction, different professional years, setting and parents income. Students studying in 5th professional had higher happiness scores than students of 2nd professional while students living in urban areas had lower happiness level than those living in rural areas. On the other hand, no significant difference ($p \geq 0.05$) with respect to different gender, age groups, cities and settings was observed. The present study concluded that majority of the undergraduate pharmacy student's studying at Hamdard University were happy. Participation in extracurricular activities must be increased and faculty should help students in building social and positive peer relationships.

Keywords

Happiness, pharmacy, mental health, Pakistan

1. Introduction

According to WHO, health is a combination of physical, social and mental well-being. Emotional health is a major component of mental health. Emotional health can be defined as a positive state of wellbeing which enables an individual to be able to function in society and meet the demands of everyday life. Emotional health is a combination of positive and negative emotions such as happiness, anger, sadness and joyfulness. Happiness is a key positive emotion which includes feeling of enjoyment, peace and eagerness (Hassanzadeh, H. and Mahdinejad, G. 2013).

It has been observed that low levels of happiness among individuals can lead to poor performance, increased stress, absenteeism and burnout. Such individuals have poor intercommunication skills and are less committed to their profession. Increased levels of happiness has physiological as well as psychological effects on human body such as better physical and mental health, better sleep quality, low production of stress hormones, improved cardiovascular activity and better immune system (Mehrdadietal, 2016).

The level of stress has significantly increased among university students in the past few years. This is might be due to the increased academic pressure in order to achieve high grades (Piquerasetal, 2011). Healthcare students are likely to suffer from academic stress because of the nature of their studies. Pharmacy students have been reported with high level of stress which in turn affects their happiness levels (Sheikhmoonesietal, 2013). Thus, the present study was conducted to assess levels of happiness among undergraduate students at Hamdard University, Islamabad, Pakistan.

2. Methodology

2.1 Study Design, Setting and Sampling

A descriptive cross-sectional study design was used to assess happiness levels among undergraduate Pharm.D students studying at Hamdard University, Islamabad, Pakistan. All the current Pharm.D students at Hamdard Institute of Pharmaceutical Sciences willing to participate were included in the study. Calculation of sample size was performed by using Rao soft sample size

calculator to determine the size of sample representing the population of Pharm.D students. Sample size was calculated as 400 to achieve 95 % confidence interval with 5% margin of error. Convenience sampling technique was used to select the respondents. According to convenience sampling all the respondents that were available at time of data collection were selected.

2.2 Ethical Considerations

National bioethical committee is present for this type of research and it states that only institutional head approval is required for this type of study. For data collection approval from Head of the Institute was taken. Informed and verbal consent for participation was also taken from the respondents. Respondents were ensured for the confidentiality of information verbally as well as confidentiality under taking was signed by the principal investigator.

2.3 Data Collection Tool

A pre-validated tool named Oxford Happiness questionnaire was used to assess the happiness levels among undergraduate students. The Oxford happiness questionnaire comprises of 29 questions. 5 point likert scale is used to assess happiness levels. The mean scores for the questionnaire are given (Table 1).

Table 1: Oxford Happiness Questionnaire Scoring

Mean scores	Happiness levels
1-2	Unhappy
3-4	Somewhat unhappy
4-6	Happy
> 6	Very happy

Pilot testing was conducted at 10 % of the sample size to test the reliability of the tool. Value of cronbach alpha for the tool was 0.79 which was satisfactory.

2.4 Data Collection

Data was collected by the investigators. The respondents were identified and after obtaining written/ verbal consent from them, the questionnaire was hand delivered to them. The questionnaire was collected back on the same day to avoid study biasness

2.5 Data Analysis

After data collection, data was cleaned coded and entered in SPSS version 21.0. Skewness test was performed and histograms with normal curves were used to check the normal distribution of data.

Descriptive statistics comprising of frequency and percentages was calculated. The non-parametric tests including Mann-Whitney and Kruskal-Walis tests ($p \geq 0.05$) were performed to find out the difference among different variables.

3. Results

3.1 Demographic Characteristics

Out of 400 respondents, 31.8% (n=127) were males and 68.2% (n=273) were females. Of the total respondents 49.2% (n=197) were less than 20 years of age whereas 50.2% (n=203) were between 20-30 years of age. Of the total respondents, 80.8% (n=323) had studied in an English medium high school whereas 19.2% (n=77) had studied in an Urdu medium high school. Of the total respondents, 30% (n=120) were studying in 1st professional, 15.8% (n=63) in 2nd professional, 18% (n=72) in 3rd professional, 22% (n=88) in 4th professional and 14.2% (n=57) in 5th professional. A detailed description is given (Table 2).

Table 2 Demographic Characteristics of Participants

Variable	n (%)
Gender	
Male	127 (31.8)
Female	273 (68.2)
Age	
<20 years	197 (49.2)
20-30 years	203 (50.7)
City	
Islamabad	170 (42.5)
Rawalpindi	155 (38.8)
KPK	18 (4.5)
Wah/Taxila	19 (4.8)
Other cities of Punjab	34 (8.5)
Azad Kashmir	4 (1)
Setting	
Urban	321 (80.2)
Rural	79 (19.8)
Medium of instruction in high school	
English	323 (80.8)
Urdu	77 (19.2)
Current professional of Pharm.D	
1st professional	120 (30)
2nd professional	63 (15.8)
3rd professional	72 (18)
4th professional	88 (22)
5th professional	57 (14.2)
Parents income	
<Rs.10,000	18 (4.5)
Rs.10,000-20,000	14 (3.5)
Rs.21,000-30,000	33 (8.2)
Rs.31,000-40,000	17 (4.2)
Rs.41,000-50,000	22 (5.5)
>Rs.50,000	44 (11)
Not responded	252 (63)

3.2 Assessment of Happiness among Undergraduate Pharmacy Students

The results highlighted that students having age less than 20 years had higher happiness scores (4.18, ± 0.544) than students aged between 20-30 years (4.15, ± 0.590).

Students living in KPK had higher scores (4.21, ± 0.389) than students living in other cities. Students having English language as medium of instruction during their schooling had better scores (4.19, ± 0.550) than students having Urdu language as medium of instruction in high school (4.04, ± 0.624). Students studying in 5th professional had better scores of happiness (4.31, ± 0.517) as compared to other students (Table 3).

Table 3 Mean Scores of Happiness among Undergraduate Pharmacy Students by Demographic Variables

Variable	Mean (±SD)
Gender	
Male	4.16 (±0.538)
Female	4.16 (±0.581)
Age	
<20 years	4.18 (±0.544)
20-30 years	4.15 (±0.590)
City	
Islamabad	4.15 (±0.551)
Rawalpindi	4.20 (±0.613)
KPK	4.21 (±0.389)
Wah/Taxila	4.07 (±0.368)
Other cities of Punjab	4.08 (±0.621)
Azad Kashmir	3.90 (±0.493)
Setting	
Urban	4.14 (±0.585)
Rural	4.23 (±0.484)
Medium of instruction in high school	
English	4.19 (±0.550)
Urdu	4.04 (±0.624)
Current professional of Pharm.D	
1st professional	4.24 (±0.519)
2nd professional	3.98 (±0.494)
3rd professional	4.13 (±0.638)
4th professional	4.10 (±0.616)
5th professional	4.31 (±0.517)
Parents income	
<Rs.10,000	4.07 (±0.447)
Rs.10,000-20,000	4.31 (±0.450)
Rs.21,000-30,000	3.91 (±0.671)
Rs.31,000-40,000	4.07 (±0.554)
Rs.41,000-50,000	3.95 (±0.506)
>Rs.50,000	4.29 (±0.574)
Not responded	4.19 (±0.561)

3.3 Comparison of Happiness among Undergraduate Pharmacy Students by Demographic Characteristics

A significant difference ($p \leq 0.05$) in happiness levels of Pharm.D students was observed among different medium of instruction, different professional years, setting and parents income. Students studying in 5th professional had higher

happiness scores than students of 2nd professional while students living in urban areas had lower happiness level than those living in rural areas. On the other hand, no significant difference ($p \geq 0.05$) with respect to different gender, age groups, cities and settings was observed (Table 4).

Table 4 Comparison of Happiness among Undergraduate Pharmacy Students by Demographic Characteristics

Indicators	Happiness			
	n	Mean ranks	Test statistics	p-value
Gender				
Male	127	201.76	17180.000	0.882[a]
Female	273	199.91		
Age				
<20Y	197	203.37	19040.000	0.507[b]
20-30Y	203	195.71		
City				
Islamabad	170	195.86	3.723	0.590[b]
Rawalpindi	155	210.24		
KPK	18	215.61		
Wah/Taxila	19	179.63		
Other cities of Punjab	34	190.29		
Azad Kashmir	4	138.38		
Setting				
Urban	321	196.22	11310.000	0.003[a]
Rural	79	217.89		
Medium of instruction in high school				
English	323	206.87	10380.000	**0.024[a]**
Urdu	77	173.79		
Current professional of Pharm.D				
1st Professional	120	217.19	13.669	**0.008[b]**
2nd Professional	63	161.79		
3rd Professional	72	193.83		
4th Professional	88	192.51		
5th Professional	57	228.89		
Parents Income				
<Rs.10,000	18	179.17	14.233	**0.027[b]**
Rs.10,000-20,000	14	232.79		
Rs.21,000-30,000	33	157.33		
Rs.31,000-40,000	17	176.41		
Rs.41,000-50,000	22	154.07		
>Rs.50,000	44	230.69		
Not responded	252	206.29		

[a] Mann Whitney [b]Kruskal Wallis test ($p \geq 0.05$)

4. Discussion

Pharmacy profession is among the highly competitive professional degree programs worldwide which could contribute towards increased stress on students leading to low happiness levels. This in turn can result in poor physical and mental health, decreased

quality of life and low levels of satisfaction. The results of the present study reported high level of happiness among undergraduate pharmacy students. Only a small proportion of students were unhappy. Male as well as female students had high happiness levels with males having slightly higher scores of happiness as compared to females. This might be due to the fact that male students are better able to cope with academic and examination stress and have more social support as compared to female students. Similar results were reported in a study conducted in Pakistan where male students were happier as compared to female students (Malik, 2013). The results of the current study highlighted that undergraduate pharmacy students having age less than 20 years were happier as compared to students aged greater than 20 years. This might be due to the fact that younger students are more motivated so their happiness level is also higher. Similar results were reported in a study conducted in Iran and Chile where the younger group of students were happier as compared to other students (Piqueras et al., 2011, Sheikhmoonesi et al., 2013). Moreover, the present study revealed that students residing in urban settings reported lower level of happiness as compared to students residing in rural settings. This might be due to increased stress on individuals living in urban areas in order to cope up with set social standards. Similar results were reported in a study conducted among Iranian youth (Mehrdadi et al., 2016). Various demographic variables were identified as predictive factors for happiness among undergraduate pharmacy students such as medium of instruction in high school, current professional year and income level of parents. The results of the current study highlighted that medium of instruction in high school was found to be an important predictor of happiness among students. Students having English as a medium of instruction throughout their high school were more happier as compared to students having Urdu as a medium of instruction. This might be due to the fact that language barrier was a source of stress for the students as they face difficulty in understanding English language during their professional degree leading to low levels of happiness. Similar results were reported in a study conducted in china (Chinget al., 2017). Another important factor predicting happiness level was current professional year of student. The results of the current study highlighted that students studying in fifth professional were happiest whereas students studying in their second

professional were least happy. This might be due to the fact as final year students feel motivated and happy as they would be joining the practical field and would be earning independently shortly. Similar results were reported in a study conducted in Iran (Bahrami et al., 2011). Income level of parents was found to be a significant factor for predicting happiness among undergraduate pharmacy students. The results of the current study highlighted that students whose parents income was high were comparatively the happiest. Similar results were reported in a study where higher socio-economic status was linked to higher level of happiness (Lesani et al., 2016).

5. Conclusion

The results of the present study concluded a high level of happiness among undergraduate pharmacy students studying at Hamdard University Islamabad Campus. A small proportion of students were unhappy. The results are quite encouraging indicating that academic environment at the university is less stressful and support is provided to students to handle the academic pressure. Faculty members should design active learning classroom activities that will engage students positively and reduce the element of negativity among students. University management should arrange extracurricular activities for students to help relieve stress and improve happiness level.

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