Attitude of Future Health Care Providers Regarding Treatment and Management of Mental Health Disorders

Muhammad Shahid Iqbal[1*], Salah-Ud-Din Khan[2] and Muhammad Zahid Iqbal[3]

[1]Department of Clinical Pharmacy, College of Pharmacy, Prince Sattam Bin Abdulaziz University, Al-Kharj, 11942, Saudi Arabia.
[2]Department of Biochemistry, College of Medicine, Al Imam Mohammad Ibn Saud Islamic University, Riyadh, Saudi Arabia.
[3]Department of Clinical Pharmacy and Pharmacy Practice, Faculty of Pharmacy, AIMST University, 08100, Bedong, Kedah Darul Aman, Malaysia.

Authors' contributions

This work was carried out in collaboration among all authors. Authors MSI and MZI designed the study, performed the initial statistical analyses and wrote the protocol. Authors SUDK and MSI wrote the first draft of the manuscript. Authors MSI and MZI managed refined analyses. Authors SUDK and MSI revised the manuscript. All authors read and approved the final manuscript.

Original Research Article

ABSTRACT

Objective: The objective of the study was to determine the attitude of future health care providers regarding the treatment and management of mental health disorders (MHDs).
Methods: A cross-sectional study was conducted using a convenience sampling method. A self-developed and pre-validated tool was used to collect data from students studying in three health care faculties of a university in Malaysia. The Statistical Package for Social Science (SPSS) Version 24.0 was used to analyze the data.
Results: Out of the total study participants, males were 104 (36.6%) and females were 180

_____

Corresponding author: E-mail: drmmsiqbal@gmail.com;

(63.4%) in the study. For the race variable the Malays students were 7 (2.5%), Chinese students 212 (74.6%), Indians students 60 (21.2%), and others 5 (1.7%).
Conclusion: Overall positive attitude was observed among the studied cohort of future health care providers.

Keywords: Mental health disorders; MHDs; attitude; future health care providers; university.

1. INTRODUCTION

Mental wellbeing is an essential element of health. Mental disorders are available in all regions of the world and are considered as the major contributors to morbidity and mortality [1]. Evidence disclosed that 14% of the global burden of disease are related to Mental health disorders [2]. Thus, health disorders became public health issue globally. Many people globally suffer from more than one mental disorder at specific time [3]. Although there are no effective treatments for mental health disorders are there, but still many patients do not obtain appropriate treatment for these disorders [4]. Even those who obtain care health care providers often tend to show a substantial delay for the improvement in symptoms belonged to mental disorder [5]. The fear of being differentiated from the healthy population has considered as a significant factor in generating barriers and ultimately results in the delay in seeking for proper treatment [6].

The differentiation between healthy people and mental disorder patients directly affecting on many domains of patient daily life, for example, personal relationships, employment and social activities [7]. Furthermore, the family members of mental disorder patients are often blamed by the general public [8]. Such attitudes and manners by general public towards the mental health disorder patients result in delay treatment or reject professional help form health care providers [9]. Evidences from literature have shown that low percentage of seeking help from health care providers are mainly due to inappropriate knowledge and negative attitude about mental health disorders that comprises information regarding mental health disorder symptoms, and its treatments [10].

For improvement in psychiatric training among undergraduate health care population the improvement in knowledge and development of positive attitude are really important. A positive in future health care providers attitude will result in the proper prevention of the disease in the near future [11]. The current study was carried out for assessment of the attitude of future healthcare providers in medical, dental, and pharmacy students on mental health disorders in a private medical university in Malaysia.

2. METHODOLOGY

A cross-sectional observational study was conducted among healthcare students using a self-developed and pre-validated research questionnaire. The research questionnaire was developed with the help of validation and reliability of the content. The research tool carried of two parts, the first part was the demographic features of the respondents and the second part was the attitude-based questions. Data were collected using a convenience sampling technique. The sample size was designed by stratified sampling method. Total of 300 future health care providers from different faculties were targeted under this sampling method.

Students were required to understand and select the answer based on their personal attitude. The participants' response was scored based on their attitude. The attitude scoring criterion was obtained from a similar previous study [12]. The scoring was ranged from one to five points. The scoring cut-off point were i) ≤ 59% = negative attitude, ii) 60-79% = neutral attitude and iii) 80-100% = positive attitude. The obtained scores were interpreted as numbers and percentages to ease the data presentation.

The data were analyzed thru Statistical Package for Social Science (SPSS) version 24.0. the categorical variables were presented as frequencies and percentages whereas means with standard deviations were presented as continuous variables. The Pearson Chi-Square test and Fisher's Exact test were used to find the p values among variables whereas the Phi Cramer's V values were obtained to determine the effect size among the significant variables. A *p*-value less than 0.05 was ranked as statistically significant.

3. RESULTS

A total of 284 students from three healthcare faculties participated in the current study. Out of the total participants, males were 104 (36.6%) and females were 180 (63.4%) in the study. For the race variable the Malays students were 7 (2.5%), Chinese students 212 (74.6%), Indians students 60 (21.2%), and others 5 (1.7%).

Among other demographic attributes, there were 95 (33.5%) students from the faculty of medicine, 94 (33.1%) from the pharmacy, and 95 (33.5%) from dentistry who participated in the present study as shown in Table 1.

Attitude Question 1: In my opinion, treatment to cure mental health disorders (MHDs) is available.

The response of respondents to question 1 had majority shows that the value is insignificant except for the variable of faculty.

The statistically significant and weak positive association were observed in faculty (p-value = *0.045* and effect size = 0.236). There was no statistical significance seen in other any variable.

Attitude Question 2: I believe giving palliative care to MHDs patients is very effective.

The response of respondents to question 2 had majority shows that the value is insignificant except for the variable of faculty.

The statistically significant and weak positive association were observed in faculty (p-value = *<0.001* and effect size = 0.357). There was no statistical significance seen in any other variable.

Attitude Question 3: I believe MHDs patients recover fast by practicing religious activities and acquiring positive thoughts.

The response of respondents to question 3 had majority shows that the value is insignificant except for the variable of faculty, gender and residence.

The statistically significant and weak positive association were observed in faculty (p-value = *<0.001* and effect size = 0.301), gender (p-value = *0.023* and effect size = 0.200) and residence (p-value = *<0.001* and effect size = 0.281). There was no statistical significance seen in other any variable.

Attitude Question 4: Positive behavioral changes may mask symptoms of MHDs.

The response of respondents to question 4 had majority shows that the value is insignificant except for the variable of gender.

Table 1. Demographic characteristics of study participants (N =284)

Variables	N (%)
Faculty	
Medicine	95 (33.5)
Pharmacy	94 (33.1)
Dentistry	95 (33.5)
Year of education	
Pre-final	143 (50.4)
Final	141 (49.6)
Age	
20-25	277 (97.5)
25-30	7 (2.5)
Residence	
Hostellers	174 (61.3)
Non-hostellers	110 (38.7)
Family size	
Less than 4	42 (14.8)
4-6	209 (73.6)
More than 6	33 (11.6)

Table 2. Attitude of respondents to question 1

Variables	Strongly Disagree N (%)	Disagree N (%)	Neutral N (%)	Agree N (%)	Strongly Agree N (%)	*p-value*	Effect size[#]
Faculty							
Medicine	1 (1.1)	4 (4.2)	11 (11.6)	57 (60.0)	22 (23.2)	*0.045**	0.236
Pharmacy	0 (0.0)	3 (3.2)	19 (20.2)	52 (55.3)	20 (21.3)		
Dentistry	0 (0.0)	3 (3.2)	32 (33.7)	45 (47.4)	15 (15.8)		
Year of Education							
Pre-final	0 (0.0)	7 (4.9)	35 (24.5)	78 (54.5)	23 (16.1)	*0.217**	
Final	1 (0.7)	3 (2.1)	27 (19.1)	76 (53.9)	34 (24.1)		-
Gender							
Male	1 (1.0)	3 (2.9)	27 (26.0)	55 (52.9)	18 (17.3)	*0.422**	-
Female	0 (0.0)	7 (3.9)	35 (19.4)	99 (55.0)	39 (21.7)		
Age							
20-25	1 (0.4)	10 (3.6)	60 (21.7)	150 (54.2)	56 (20.2)	*0.968**	-
25-30	0 (0.0)	0 (0.0)	2 (28.6)	4 (57.1)	1 (14.3)		
Residence							
Hostellers	0 (0.0)	7 (4.0)	46 (26.4)	91 (52.3)	30 (17.2)	*0.079**	-
Non-hostellers	1 (0.9)	3 (2.7)	16 (14.5)	63 (57.3)	27 (24.5)		
Race							
Malay	0 (0.0)	0 (0.0)	1 (33.3)	1 (33.3)	1 (33.3)	*0.689**	-
Chinese	1 (0.4)	10 (4.3)	124 (53.7)	124 (53.7)	42 (18.2)		
Indian	0 (0.0)	0 (0.0)	26 (56.5)	26 (56.5)	14 (30.4)		
Others	0 (0.0)	0 (0.0)	3 (75.0)	3 (75.0)	0 (0.0)		
Family Size							
Less than 3	0 (0.0)	1 (2.4)	9 (21.4)	23 (54.8)	9 (21.4)	*0.348**	-
4-6	1 (0.5)	7 (3.3)	42 (20.1)	112 (53.6)	47 (22.5)		
More than 6	0 (0.0)	2 (6.1)	11 (33.3)	19 (57.6)	1 (3.0)		

*Pearson Chi-Square, **Fisher's Exact Test, #Phi Cramer's V

Table 3. Attitude of respondents to question 2

Variables	Strongly Disagree N (%)	Disagree N (%)	Neutral N (%)	Agree N (%)	Strongly Agree N (%)	*p-value*	Effect size[#]
Faculty							
Medicine	3 (3.2)	5 (3.5)	7 (7.4)	59 (62.1)	21 (22.1)	*<0.001**	0.357
Pharmacy	0 (0.0)	1 (1.1)	11 (11.7)	63 (67.0)	19 (20.2)		
Dentistry	0 (0.0)	0 (0.0)	31 (32.6)	50 (52.6)	14 (14.7)		
Year of Education							
Pre-final	1 (0.7)	3 (2.1)	24 (16.8)	91 (63.6)	24 (16.8)	*0.811**	
Final	2 (1.4)	3 (2.1)	25 (17.7)	81 (57.4)	30 (21.3)		-
Gender							
Male	2 (1.9)	3 (2.9)	22 (21.2)	55 (52.9)	22 (21.2)	*0.280**	-
Female	1 (0.6)	3 (1.7)	27 (15.0)	117 (65.0)	32 (17.8)		
Age							
20-25	3 (1.1)	6 (2.2)	48 (17.3)	168 (60.6)	52 (18.8)	*0.961**	-
25-30	0 (0.0)	0 (0.0)	1 (14.3)	4 (57.1)	2 (28.6)		
Residence							
Hostellers	1 (0.6)	3 (1.7)	29 (16.7)	111 (63.8)	30 (17.2)	*0.572**	-
Non-hostellers	2 (1.8)	3 (2.7)	20 (18.2)	61 (55.5)	24 (21.8)		
Race							
Malay	0 (0.0)	0 (0.0)	0 (0.0)	2 (66.7)	1 (33.3)	*0.917**	-
Chinese	3 (1.3)	5 (2.2)	44 (19.0)	139 (60.2)	40 (17.3)		
Indian	0 (0.0)	1 (2.2)	4 (8.7)	29 (63.0)	12 (26.1)		
Others	0 (0.0)	0 (0.0)	1 (25.0)	2 (50.0)	1 (25.0)		
Family Size							
Less than 3	1 (2.4)	3 (7.1)	10 (23.8)	19 (45.2)	9 (21.4)	*0.115**	-
4-6	1 (0.5)	3 (1.4)	32 (15.3)	133 (63.6)	40 (19.1)		
More than 6	1 (3.0)	0 (0.0)	7 (21.2)	20 (60.6)	5 (15.2)		

*Pearson Chi-Square, **Fisher's Exact Test, #Phi Cramer's V

The statistically significant and weak positive association were observed in gender (p-value = *0.011* and effect size = 0.214). There was no statistical significance seen in any other variable.

Attitude Question 5: In my opinion, highly educated individuals have higher rate of MHDs than others.

The response of respondents to question 5 had majority shows that the value is insignificant except for the variable of year of education.

The statistically significant and weak positive association were observed in year of education (p-value =*0.015* and effect size = 0.222). There was no statistical significance seen in other any variable.

4. DISCUSSION

The current study was the pioneer study in any Malaysian university on mental health disorders attitude evaluation of health care university students. The findings of the present study proved that the dental students of the university had a more neutral attitude (33.7%) as compared to the other medical (11.6%) and pharmacy students (20.2%) when the question was asked about the opinion, availability of proper treatment for mental health disorders. A weak positive association (ϕ=0.236) was observed in faculty variable with this question. The proposed reason behind could be the curriculum of medical students. In the syllabus of medical students, the mental health disorders are there as compared to the dental students. The results of the current study were supported by a study conducted by Farid Youssef and colleagues where they found that the medical students had better knowledge as compared with other on mental health disorders [13].

A statistically significant (p=<0.001) association was also observed in faculty variable with the question about the belief in giving palliative care to mental health disorder patients' effectiveness. A weak positive association

Table 4. Attitude of respondents to question 3

Variables	Strongly Disagree N (%)	Disagree N (%)	Neutral N (%)	Agree N (%)	Strongly Agree N (%)	*p-value*	Effect size[#]
Faculty							
Medicine	4 (4.2)	12 (12.6)	28 (29.5)	38 (40.0)	13 (13.7)	*<0.001**	0.301
Pharmacy	1 (1.0)	1 (1.1)	19 (20.2)	53 (56.4)	20 (21.3)		
Dentistry	2 (2.1)	3 (3.2)	36 (37.9)	43 (45.3)	11 (11.6)		
Year of Education							
Pre-final	3 (2.1)	7 (4.9)	47 (32.9)	65 (45.5)	21 (14.7)	*0.727**	
Final	4 (2.8)	9 (6.4)	36 (25.5)	69 (48.9)	23 (16.3)		-
Gender							
Male	6 (5.8)	6 (5.8)	36 (34.6)	44 (42.3)	12 (11.5)	*0.023**	0.200
Female	1 (0.6)	10 (5.6)	47 (26.1)	90 (50.0)	32 (17.8)		
Age							
20-25	7 (2.5)	15 (5.4)	81 (29.2)	132 (47.7)	42 (15.2)	*0.653**	-
25-30	0 (0.0)	1 (14.3)	2 (28.6)	2 (28.6)	2 (28.6)		
Residence							
Hostellers	1 (0.6)	3 (1.7)	53 (30.5)	92 (52.9)	25 (14.4)	*<0.001**	0.281
Non-hostellers	6 (5.5)	13 (11.8)	30 (27.3)	42 (38.2)	19 (17.3)		
Race							
Malay	0 (0.0)	1 (33.3)	0 (0.0)	2 (66.7)	0 (0.0)	*0.509**	-
Chinese	6 (2.6)	11 (4.8)	69 (29.9)	111 (48.1)	34 (14.7)		
Indian	1 (2.2)	3 (6.5)	13 (28.3)	19 (41.3)	10 (21.7)		
Others	0 (0.0)	1 (25.0)	1 (25.0)	2 (50.0)	0 (0.0)		
Family Size							
Less than 3	0 (0.0)	3 (7.1)	8 (19.0)	20 (47.6)	11 (26.2)	*0.164**	-
4-6	6 (2.9)	11 (5.3)	68 (32.5)	93 (44.5)	31 (14.8)		
More than 6	1 (3.0)	2 (6.1)	7 (21.2)	21 (63.6)	2 (6.1)		

*Pearson Chi-Square, **Fisher's Exact Test, #Phi Cramer's V

(φ=0.357) was observed in faculty variable with this question. The reason behind could be the better and positive attitude of pharmacy students as compared with the dental and medical students. This justification and findings of current study was well supported by a study conducted in Nepal according to which the attitude of the pharmacy students was more positive as compared with others [14].

The finding of the current study showed that the statistically significant and weak positive association were observed in faculty (p-value = <0.001 and effect size = 0.301), gender (p-value = 0.023 and effect size = 0.200) and residence (p-value = <0.001 and effect size = 0.281). The probable reason could be the inequality in the number of students in these variables. The results of the current research on the imbalanced number of contestant students were in line with a study conducted in Malaysia according to which the Chinese students had more good knowledge

as compared with the other races in the study [11].

Statistically, a significant (p=0.011) association was also observed in the gender variable when the question was asked about the positive behavioral changes that may mask symptoms of mental health disorders. A statistically weak positive association (φ=0.214) was observed in the gender variable of the current study with this question. This justification was well supported by a study conducted in Kenya according to which the attitude of the females was more appropriate as compared with males [15]. Similarly, the same kind of weak positive association was observed in the year of education with the statement 'highly educated individuals have higher rate of mental health disorders than others. The reason behind could be the knowledge difference between final year and pre-final year students. The justification behind was well supported by a study conducted in Malaysia by Iqbal and colleagues [16].

Table 5. Attitude of respondents to question 4

Variables	Strongly Disagree N (%)	Disagree N (%)	Neutral N (%)	Agree N (%)	Strongly Agree N (%)	*p-value*	Effect size #
Faculty							
Medicine	3 (3.2)	5 (5.3)	20 (21.1)	55 (57.9)	12 (12.6)	*0.700**	-
Pharmacy	1 (1.1)	2 (2.1)	28 (29.8)	50 (53.2)	13 (13.8)		
Dentistry	2 (2.1)	2 (2.1)	29 (30.5)	52 (54.7)	10 (10.5)		
Year of Education							
Pre-final	1 (0.7)	7 (4.9)	38 (26.6)	84 (58.7)	13 (9.1)	*0.074**	-
Final	5 (3.5)	2 (1.4)	39 (27.7)	73 (51.8)	22 (15.6)		
Gender							
Male	6 (5.8)	4 (3.8)	25 (24.0)	53 (51.0)	16 (15.4)	*0.011**	0.214
Female	0 (0.0)	5 (2.8)	52 (28.9)	104 (57.8)	19 (10.6)		
Age							
20-25	6 (2.2)	9 (3.2)	75 (27.1)	152 (54.9)	35 (12.6)	*0.807**	-
25-30	0 (0.0)	0 (0.0)	2 (28.6)	5 (71.4)	0 (0.0)		
Residence							
Hostellers	2 (1.1)	4 (2.3)	47 (27.0)	101 (58.0)	20 (11.5)	*0.417**	-
Non-hostellers	4 (3.6)	5 (4.5)	30 (27.3)	56 (50.9)	15 (13.6)		
Race							
Malay	0 (0.0)	0 (0.0)	0 (0.0)	2 (66.7)	1 (33.3)	*0.841**	-
Chinese	6 (2.6)	6 (2.6)	61 (26.4)	130 (56.3)	28 (12.1)		
Indian	0 (0.0)	3 (6.5)	14 (30.4)	23 (50.0)	6 (13.0)		
Others	0 (0.0)	0 (0.0)	2 (50.0)	2 (50.0)	0 (0.0)		
Family Size							
Less than 3	2 (4.8)	0 (0.0)	13 (31.0)	18 (42.9)	9 (21.4)	*0.073**	-
4-6	2 (1.0)	8 (3.8)	52 (24.9)	123 (58.9)	24 (11.5)		
More than 6	2 (6.1)	1 (3.0)	12 (36.4)	16 (48.5)	2 (6.1)		

*Pearson Chi-Square, **Fisher's Exact Test, #Phi Cramer's V

Table 6. Attitude of respondents to question 5

Variables	Strongly Disagree N (%)	Disagree N (%)	Neutral N (%)	Agree N (%)	Strongly Agree N (%)	*p-value*	Effect size#
Faculty							
Medicine	5 (5.3)	11 (11.6)	33 (34.7)	33 (34.7)	13 (13.7)	*0.231**	-
Pharmacy	2 (2.1)	18 (19.1)	34 (36.2)	28 (29.8)	12 (12.8)		
Dentistry	4 (4.2)	10 (10.5)	47 (49.5)	27 (28.4)	6 (6.3)		
Year of Education							
Pre-final	3 (2.1)	23 (16.1)	65 (45.5)	44 (30.8)	8 (5.6)	*0.015**	0.222
Final	8 (5.7)	16 (11.3)	49 (34.8)	44 (31.2)	23 (16.3)		
Gender							
Male	4 (3.8)	17 (16.3)	38 (36.5)	29 (27.9)	16 (15.4)	*0.365**	-
Female	7 (3.9)	22 (12.2)	76 (42.2)	59 (32.8)	15 (8.3)		
Age							
20-25	11 (4.0)	38 (13.7)	112 (40.4)	87 (31.4)	28 (10.1)	*0.162**	-
25-30	0 (0.0)	1 (14.3)	2 (28.6)	1 (14.3)	3 (42.9)		
Residence							
Hostellers	6 (3.4)	25 (14.4)	70 (40.2)	54 (31.0)	18 (10.3)	*0.953**	-
Non-hostellers	5 (4.5)	14 (12.7)	44 (40.0)	34 (30.9)	13 (11.8)		
Race							
Malay	0 (0.0)	1 (33.3)	0 (0.0)	0 (0.0)	2 (66.7)	*0.194**	-
Chinese	9 (3.9)	29 (12.6)	99 (42.9)	68 (29.4)	25 (10.8)		
Indian	2 (4.3)	9 (19.6)	13 (28.3)	19 (41.3)	3 (6.5)		
Others	0 (0.0)	0 (0.0)	2 (50.0)	1 (25.0)	1 (25.0)		
Family Size							
Less than 3	3 (7.1)	3 (7.1)	19 (45.2)	12 (28.6)	4 (9.5)	*0.132**	-
4-6	8 (3.8)	34 (16.3)	83 (39.7)	63 (30.1)	21 (10.0)		
More than 6	0 (0.0)	2 (6.1)	12 (36.4)	13 (39.4)	6 (18.2)		

*Pearson Chi-Square, **Fisher's Exact Test, #Phi Cramer's V

5. CONCLUSION

The present study reported mixed findings regarding the attitude towards mental health disorder among future healthcare providers in the studied population. The pharmacy faculty students had a more positive attitude towards mental health disorder. There are certain limitations related with present study. This study was performed at only one private university, so the results of the single center study cannot generalize to all universities in Malaysia.

CONSENT

Health care students' consent was obtained prior to commencement of the study.

ETHICAL APPROVAL

All aspects regarding data privacy of the participants were strictly followed during the study period. The ethical approval was taken from the concerned research ethical committee.

ACKNOWLEDGEMENT

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. De Hert M, Correll CU, Bobes J et al. Physical illness in patients with severe mental disorders. I. Prevalence, impact of medications and disparities in health care. World Psychiatry. 2011;10(1):52–77.
2. Ferrari AJ, Charlson FJ, Norman RE et al. Burden of depressive disorders by country, sex, age, and year: Findings from the global burden of disease study 2010. PLoS Med. 2013;10(11):e1001547.
3. World Health Organization. WHO | Depression and Other Common Mental Disorders. WHO; 2017.
4. Ebert DD, Cuijpers P, Muñoz RF, Baumeister H. Prevention of mental health

disorders using internet- and mobile-based interventions: A narrative review and recommendations for future research. Front. Psychiatry. 2017;8:1.

5. Abdel-Baki A, Aubin D, Morisseau-Guillot R et al. Improving mental health services for homeless youth in downtown Montreal, Canada: Partnership between a local network and ACCESS Esprits ouverts (Open Minds), a National Services Transformation Research Initiative. Early Interv. Psychiatry. 2019;13(S1):20–28.

6. Taber JM, Leyva B, Persoskie A. Why do people avoid medical care? a qualitative study using national data. J. Gen. Intern. Med. 2015;30(3):290–297.

7. Connell J, Brazier J, O'Cathain A et al. Quality of life of people with mental health problems: A synthesis of qualitative research. Health Qual. Life Outcomes. 2012;10(1):138.

8. Rössler W. The stigma of mental disorders. EMBO Rep. 2016;17(9):1250–1253.

9. Henderson C, Evans-Lacko S, Thornicroft G. Mental illness stigma, help seeking, and public health programs. Am. J. Public Health. 2013;103(5):777–780.

10. Barriers to effective treatment and intervention | reducing suicide: A national imperative | The National Academies Press.
Available:https://www.nap.edu/read/10398/chapter/11

11. Iqbal MS, Iqbal MZ, Rajan S, Ahmed NJ. Evaluation of drug-related knowledge and

clinical skills among future healthcare professionals. J. Pharm. Res. Int. 2020; 32(8):44–50.

12. Aziz S, Iqbal MZ, Iqbal MS, et al. Attitude towards vaccination: A cross-sectional study among the parents in sungai petani, kedah, malaysia attitude towards vaccination: A cross-sectional study among the introduction: Vaccination protects children from developing fatal diseases lifel. Int. J. Pharm. Sci. Res. 2019;10: 2465–2472.

13. Youssef FF, Bachew R, Bodie D, et al. Knowledge and attitudes towards mental illness among college students: Insights into the wider english-speaking Caribbean population. Int. J. Soc. Psychiatry 2014; 60(1):47–54.

14. Panthee S, Panthee B, Shakya SR et al. Nepalese pharmacy students' perceptions regarding mental disorders and pharmacy education. Am. J. Pharm. Educ. 2010; 74(5):1–6.

15. Ndetei DM, Khasakhala LI, Mutiso V, Mbwayo AW. Knowledge, attitude and practice (KAP) of mental illness among staff in general medical facilities in Kenya: Practice and policy implications. African J. Psychiatry (South Africa). 2011;14(3):225–235.

16. Iqbal MS, Iqbal MZ, Rajan S, Ahmed NJ. Evaluation of drug-related knowledge and clinical skills among future healthcare professionals. J. Pharm. Res. Int. 2020; 32(8):44–50.

Peer-review history:
The peer review history for this paper can be accessed here:
http://www.sdiarticle4.com/review-history/62060