

ATTITUDES TOWARDS PSYCHIATRY AMONG MEDICAL STUDENTS WORLDWIDE: A REVIEW

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SUMMARY

Mental disorders are very frequent nowadays, and it is considered that, i.e. Europe, the numbers of patients will more than double by 2050. At the same time, there has been a constant decline of interest among students choosing psychiatry as their specialty. Therefore, it is prone to investigate and identify the factors leading to low interest in psychiatry and compare the influence of clinical clerkship among medical students worldwide, since this is no longer just a local issue, but also a global challenge. PubMed data base was used as a source of medical literature, which was afterwards filtered through established criteria to select the eligible articles dealing with attitudes toward psychiatry among medical students. Our findings indicate that likelihood of selecting psychiatry as a career is highly influenced by student's perception of the specialty, which is in turn shaped by many factors. So far several studies have underlined importance of clinical clerkship and it's positive effect among students when choosing psychiatry as a specialty. There is highly negative opinion among medical students towards psychiatry as a career choice and completion of a practice does not necessarily lead to a change in attitudes among different populations. In consistence with previous studies, our findings confirm that there is dominant negative opinion among medical students when considering psychiatry as a career.

Key words: attitudes toward psychiatry - medical students - clinical clerkship - career choice

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INTRODUCTION

Mental disorders with their frequency range from 18.1 to 36.1% are one of the most common illnesses worldwide (Kessler et al. 2009). Important to consider is an increased number of both young and elderly people living with psychiatric disorders. According to predictions depressive disorder will represent the main cause of impairment in everyday life by year 2020 (Murray et al. 1996). The number of newly diagnosed dementia cases in Europe is estimated to rise from 1.9 million in year 2000 to approximately 4.1 million by year 2050. That will represent a new challenge for the healthcare system (Brookmeyer et al. 2007, Wancata et al. 2003).

However, in the last few years there is a low interest of medical students in doing career in psychiatry. International studies have shown that just 4.5 to 4.9% of all medical students are keen on starting residency in psychiatry (Farooq et al. 2014, Pailhez et al. 2005, Mubashir et al. 2009). To ensure adequate psychiatric supply in a future one should motivate more medical students in doing their career in psychiatry.

In this article, we wanted to elucidate the effect of attitudes of medical students to psychiatry as a discipline and changes among medical student's attitudes before and after clinical clerkship and try to examine the causes leading to decreased number of psychiatrists in comparison to other specialists. A special emphasis is given on the impact of psychiatry clerkship on a career choice since it may be an oppor-

tunity to address an issue of possible lack of psychiatrists in the future, presumably because psychiatry is not a popular specialty. If psychiatric clerkship provides a good experience more students may consider psychiatry as a career after undertaking the clerkship.

METHODS

Selection criteria of studies used in this review article

Published scientific articles that met the following criteria were selected for the review:

- We have included cross-sectional design articles to review literature of the attitudes of the preclinical and clinical students and articles containing pre/post clerkship design to elucidate impact of clinical clerkship for choosing psychiatry as a specialty
- Published in an English-language, peer-reviewed journal

Literature search strategy

We searched the medical literature for cross-sectional and studies addressing the impact of clinical clerkship in choosing psychiatry a career choice from different populations worldwide. For that purpose we searched PubMed database (<http://www.ncbi.nlm.nih.gov/pubmed>). We did not set any limitation on country, race or publication year.

Steps in data classification and processing

Firstly, we searched the PubMed database for previously mentioned types of studies on attitudes toward psychiatry among medical students. Search words used were: medical student/s, attitude/s, psychiatry, career, clerkship and each word were entered separately. Subsequently, based on the previously established inclusion and exclusion criteria, suitable studies were screened out initially through reading the abstract and consequently through by reviewing the full text.

RESULTS

Characteristics of the eligible studies

The electronic search identified 8095 articles that had any of the key search words in its title. A follow-up screening of these articles was done to identify those that met the selection criteria. This resulted in identification of 42 papers that were used to writing this review. Out of 42 papers 24 contain cross-sectional study design to address issues of attitudes towards psychiatry among pre-clinical and clinical medical students and 18 considering influence of clinical clerkship in choosing psychiatry as a career among medical students.

Characteristics of the selected 42 studies are summarized in Table 1, including country where study was performed, year of study, study design and questionnaires used in the study.

Factors influencing medical students opinion toward psychiatry

The likelihood of selecting psychiatry as a career is influenced by the students' perception of the specialty. These perceptions are shaped by different factors, both positive and negative.

Negative factors can widely vary. Medical students consider psychiatry being too narrow in scope; it does not draw on all aspects of medical training; it is ineffective and unscientific; often it is considered being too emotionally demanding; and psychiatrists are unattractive role models (Maric et al. 2009, Valdivieso et al. 2014)

A study conducted among 122 medical students in their pre-clinical year in Serbia reveals also the arguments for negative perception of psychiatry as a career: it is considered to be extremely emotionally challenging, with high exposure to stress and frequent unpleasant situations (46%), psychiatry is considered as a field lacking in scientific foundation (25%), and many students simply said they were not interested in psychiatry (29%) (Maric et al. 2009).

An Indian study which was done with undergraduate students from medical colleges from different parts of the country reported that students had feelings of anger, hatred and fear toward the psychiatry patients, although majority of them could not describe the feelings. Therefore, the primary reasons for rejecting psychiatry

as a career were because managing psychiatric patients was difficult (Chawla et al. 2012). On the other hand, psychiatric clerkship had positive influence among medical students to choose psychiatry as a career in South India (Lingeswaran et al. 2010), in a study in a hospital in North India, it seemed to have a limited effect (Gulati et al. 2014).

On the contrary, the majority of the German students showed generally a positive attitude toward psychiatry, but just 25.4% of them were willing to choose psychiatry as a career, mostly because their definite decision for another subspecialty. (Lempp et al. 2012)

It is interesting that in some other countries, positive attitude toward psychiatry was observed, but only small percentage of those students wanted to choose psychiatry as a specialty. For example, nearly 75% of evaluated medical students in Kenya, had positive attitude toward psychiatry, but only 14.3% considered psychiatry as a potential career choice. (Ndtei et al. 2008). Similar situation was observed in Pakistan, where only 7.6% of students considered psychiatry as a career choice (Syed et al. 2008). Furthermore, another study from Pakistan reported that even psychiatry clerkship had no effect on students' choice of psychiatry as a career (Sajid et al. 2009). In Hungary psychiatry became even less attractive after clinical clerkship (Gazdag et al. 2009).

In some way better situation was reported by the authors from Israel. They have been using the same questionnaire as authors from USA and Australia and showed that 32.8% of the Israeli medical students in the preclinical years consider residency in psychiatry, compared to 7.7% in the USA and 15.9% in Australia (Abramovitz et al. 2005). A generally positive attitude toward psychiatry was found among medical students in Egypt, where 29.5% considered psychiatry as a potential career. An explanation is probably due to the fact that students were both pre-clinical and clinical, who have already undertaken a clinical rotation (Shalaby et al. 2015).

Positive factors, of choosing psychiatry as a specialty are: female gender, personal or family experience with psychiatric or organic disease, already expressed interest for psychiatry during medical studies or contact with some parts of psychiatry (Farooq et al. 2014, Lempp et al. 2012, Baptista et al 1993). The students who choose psychiatry as a specialty are more impressed by its intellectual comprehensiveness, by its rapid expansion, and by psychiatrists' superiority over other physicians in communication skills (Koh et al. 1994). Similar positive trend was observed after teaching among medical students in Indonesia (Wiguna et al. 2012) and Croatia (Rojnic-Kuzman et al. 2013).

Nevertheless, many studies have shown that clinical clerkship can lead to an increase in positive attitudes toward psychiatry. For example, in a pool at Yonsei University College of Medicine, in Seoul, Korea, 81.2% of the medical students pointed out importance of a psychiatric clerkship as the factor with the highest impact on students' interest in psychiatry (Koh et al. 1994).

Table 1. Characteristics of the included studies

Study No.	Country	Year of Study	Study design	Questionnaire Type	Reference
1	Bangladesh	N/A	cross-sectional	MCAQ and MBAQ	Giasuddin et al. 2015
2	Egypt	2012/2013	cross-sectional	ATP-30	Shalaby et al. 2015
3	Australia	2003-2004	pre/post	Balon's and MICA	Lyons et al. 2015
4	India	2012	cross-sectional	ATP-29	Gulati et al. 2014
5	Chile	N/A	cross-sectional	self-constructed	Valdivieso et al. 2014
6	20 countries	N/A	cross-sectional	ATP-18	Farooq et al. 2014
7	Nigeria	2011	pre/post	modified FABI	Iheanacho et al. 2014
8	Nepal	2011	cross-sectional	ATP-30	Risal et al. 2013
9	China	N/A	cross-sectional	self-constructed	Wang et al. 2013
10	Croatia	2009/2010	cross-sectional	adopted from UK study	Kuzman et al. 2013
11	USA and Qatar	2007-2009	pre/post	by Nielsen/Balon et al.	Burgut et al. 2013
12	Germany	N/A	pre/post	ATP-30	Hofmann et al. 2013
13	Iran	N/A	pre/post	by Feifel et al.	Amini et al. 2013
14	Germany	2007/2008	cross-sectional	ATP-30	Lempp et al. 2012
15	India	N/A	cross-sectional	self-constructed	Chawla et al. 2012
16	Indonesia	2011	cross-sectional	ATP-30	Wiguna et al. 2012
17	Iran	2007-2010	pre/post	by Nelson et al.	Khajeddin et al. 2012
18	Serbia	2007/2008	cross-sectional	modified Feifel et al.	Maric et al. 2011
19	Ghana	2007	pre/post	self-constructed	Laugharne et al. 2011
20	India	N/A	cross-sectional	ATP-29	Lingeswaran et al. 2010
21	Portugal	N/A	pre/post	modified Balon et al.	Xavier et al. 2010
22	Hungary	N/A	cross-sectional	ATP-30	Gazdag et al. 2009
23	Pakistan	2005	cross-sectional	self-constructed	Sajid A et al. 2009
24	Serbia	2007/2008	cross-sectional	modified Feifel et al.	Maric et al. 2009
25	Pakistan	2006	cross-sectional	by Feifel et al.	Syed et al. 2008
26	Kenya	N/A	cross-sectional	ATP-30	Ndetei et al. 2008
27	Oman	N/A	pre/post	by Das and Chandrasena	Al-Adawi et al. 2008
28	Israel	N/A	pre/post	Modified Nielsen's	Fischel et al. 2008
29	Israel	2003-2004	pre/post	by Feifel et al.	Gat et al. 2007
30	Ohio, USA	2002-2003	pre/post	Linkert-type	Niedermier et al. 2006
31	Indiana, USA	1997/2001	pre/post	self-developed survey	Galka et al. 2005
32	Malaysia	2003/2004	pre/post	ATP-30, AMI	Reddy et al. 2005
33	Israel	2000-2002	cross-sectional	by Feifel et al.	Abramowitz et al. 2005
34	California, Texas, USA	1994	cross-sectional	self-constructed	Feifel et al. 1999
35	Turkey	N/A	pre/post	three different vignettes	Arkar et al. 1997
36	Ireland	1994	pre/post	ATP-30, SATP, Das and Chandrasena	Sloan et al. 1996
37	Pennsylvania, USA	N/A	cross-sectional	self-constructed	Fabrega H et al. 1995
38	Australia	N/A	pre/post	self-constructed	Galletly et al. 1995
39	Venezuela	1990	cross-sectional	ATP-30	Baptista et al. 1993
40	Korea	N/A	cross-sectional	by Nielsen and Eaton.	Koh et al. 1990
41	France	1983	cross-sectional	by Nielsen and Eaton.	Samuel-Lajeunesse et al. 1985
42	Canada	N/A	pre/post	interview	Lau et al. 1976

* for detail list see corresponding references; N/A – not available

Effect of clinical clerkship in attitudes toward psychiatry

Clerkships (also called attachments, placements or rotations) form a core component of clinical teaching in medical schools. In average, students have most often undertaken clinical clerkship in their 5th and 6th study years. Clerkship lasted between 4 and 8 weeks, but mostly 6 weeks in average. Several studies seem to

underline the positive effect a clerkship has on the student's attitude towards psychiatry (Khajeddin et al. 2012, Al-Adawi et al. 2008, Burgut et al. 2013, Niedermier et al. 2006).

In a study conducted among Irish final year medical students, the impact of the psychiatric clerkship was evaluated by administering anonymous attitudinal questionnaires before and after their 8-week psychiatry clerkship. 45% of the Irish medical students have a

positive attitude toward psychiatry even prior to the start of their clinical training, followed by an increase to 57% after the training. This indicated that a positive attitudinal change toward psychiatry can be brought about by the clerkship (Sloan et al. 1997).

Similarly, in a study conducted among Portuguese medical students, results clearly indicate that the clerkship had a favorable overall impact on the student attitude toward psychiatry, as well as in the number of students considering a future career in it (Xavier et al. 2010). Changes in students' attitudes toward psychiatry were also improved during the clerkship among medical students of Jondishapur Medical School, Ahwaz, Iran (Khajeddin et al. 2012).

Similar positive trend was observed after teaching among medical students with US curriculum in Qatar (Burgut et al. 2013), Ghana (Laugharne et al. 2011), USA (Ohio) (Niedermier et al. 2006), in case of Malaysia among female, but not male students (Reddy et al. 2005) and among Canadian medical students (Lay et al. 1976).

No change was found in respect to changes in attitudes of Israeli students toward residency in psychiatry prior and after the clinical rotation in a study conducted at the Hebrew University Medical School (Gat et al. 2007, Fischel et al. 2008). Therefore, residency in psychiatry is ranked by Israeli students as less attractive in comparison to internal medicine, surgery, pediatrics, family practice and gynecology (Gat et al. 2007). No effect after psychiatric training was observed among medical students in Australia (Lyons et al. 2015, Galletly et al. 1995). Furthermore, clinical clerkship had no impact on choosing psychiatry as a specialty among students in Iran (Amini et al. 2013), Turkey (Arkar et al. 1997) and Germany (Hofmann et al. 2013).

Opposite results were found among students at School of Medicine, University of Belgrade, Serbia. Even though medical students at the University of Belgrade, Serbia, show a stronger affinity toward psychiatry (~15%) in comparison to their peers in other countries such as United Kingdom, United States, France, Germany, Australia, Denmark, there is a decrease in interest among medical students after they have completed the psychiatric clerkship (Maric et al. 2011). Negative effect was further observed after completing clinical clerkship among medical students in Hungary (Gazdag et al. 2009), and Oman (Al-Adawi et al. 2008).

DISCUSSION

Students' affinity toward psychiatry has been evaluated for almost a century (Maric et al. 2009). However, the methodology and general conditions were inconsistent and this prevented the matter from being discussed unambiguously (Maric et al. 2009). This changed in 1982 with the development of the Attitudes towards Psychiatry (ATP-30) questionnaire by Burra et

al. Since then, this questionnaire has been used worldwide (Shalaby et al. 2016). Meanwhile, additional questionnaires have been developed and used to evaluate medical students' attitude toward psychiatry (Sloan et al. 1996).

It has to be pointed out that direct comparison between reviewed studies is difficult because of the variety of questionnaires used and due to the differences in analyses of data and reporting of results (Lyons et al. 2012).

Previous studies investigating this topic have repeatedly shown that psychiatry continues to be an extremely unpopular specialty among medical students. For example, one study in China has shown that only 4 students (1.6%) among 258 students in a sample took psychiatry as their first choice of career (Wang et al. 2013). As a result there is a shortage of psychiatrists in many countries (Gat et al. 2007, Lay et al. 1976). Indeed, 12% of all available psychiatrist positions remain vacant in U.K., whereas in Canada that percent is 7.1% (Lay et al. 1976).

Several studies, such as those in Bangladesh, Spain, United Kingdom and Portugal, seem to underline the positive effect a clerkship has on the students' attitude toward psychiatry (Xavier et al. 2010, Giasuddin et al. 2015). These findings are consistent with the effects of clinical clerkship among Irish, Portuguese and Iranian medical students described in our review (Khajeddin et al. 2012, Sloan et al. 1996, Xavier et al. 2010). This effect is particularly visible in clerkships that allow students to participate in the direct provision healthcare, to witness patient recovery, and to join the staff group (Xavier et al. 2010).

In contrast to the Western World, the South Korean medical students' interest in psychiatry has appeared to increase in recent years. The medical students' current career interest in psychiatry correlated significantly with their previous interest in the field. It suggests that most of the students considering psychiatry as a career choice showed a considerable interest in psychiatry long before entering clinical clerkship (Koh et al. 1990). Similarly, medical students in a Chilean medical school were fairly positive toward psychiatry already at the beginning of the clerkship (Valdivieso et al. 2014).

Students with positive attitude toward psychiatry were more impressed by its intellectual comprehensiveness, by its rapid expansion, and by psychiatrists' superiority over other physicians in communication skills (Koh et al. 1990). An Israeli study found that among the specialties, psychiatry was perceived as providing the highest intellectual challenge (Gat et al. 2007).

Students are at an especially critical phase of attitude formation, and studies suggest that merely completing a psychiatry clerkship or formal didactic training may not necessarily bring about changes in these attitudes (Iheanacho et al. 2014). For example, in India, the undergraduates reported feeling of anger, fear and even hatred toward the psychiatry patients (Chawla et al. 2012).

An American study have been reported that medical students in United States enter medical schools with distinctly negative attitudes toward a career in psychiatry compared with the other specialties. Some of these negative views are subjective and less vulnerable to remediation, whereas others appear to be more objectively refutable through education (Feifel et al. 1999).

It seems necessary to start psychiatric education in medical schools early for career choice of psychiatry as a specialty. Emphasis should be on positive aspects of the professional life in psychiatry, such as flexible working hours, career prospects and good work-life balance (Baller et al. 2013). On the other hand, improving opportunities of establishing interactions between students and psychiatrists or psychiatric patients might help to improve recruitment in psychiatry (Andlauer et al. 2012). Also, nontraditional psychiatric settings could offer a valuable adjunct in comparison to more traditional clinical settings to reduce stigma when introducing medical students to the field of psychiatry (Cutler et al. 2012).

Our study indeed, has some limitations. One of those is the sample, which is not homogeneous as different kinds of questionnaires have been used in the original articles. This prevents further, in detail, comparison of the causes and reasons that determine attitudes toward psychiatry between different studies. Nevertheless, this review summarizes the influence of clinical clerkship among medical students from different countries and concludes that much more effort should be put into demystifying Psychiatry as a specialty toward medical students. Furthermore, senior medical doctors should pay more attention during clinical clerkship to motivate students to choose Psychiatry as their future specialty. In order to ensure that the psychiatric workforce remains sustainable into the future, new generations of motivated and enthusiastic young doctors need to be encouraged towards a career in psychiatry.

CONCLUSION

This is an up-to-date review dealing with attitudes toward psychiatry among medical students worldwide. Consistent with previous studies, our findings confirm that there is dominant negative opinion among medical students when considering psychiatry as a career. However, this is not homogenous thinking, as shown in case of South-Korean, Chilean, Serbian, Croatian and Irish medical students prior to psychiatric clerkship. Upon completion of a clerkship, strongly positive attitude toward psychiatry is observed among medical students in South Korea, Ireland and Chile. Beside further and more detailed education about psychiatry, thorough studies examining the causes of pre-clerkship negative opinion toward psychiatry among medical students are needed. It is now important to focus more

closely on psychiatry curricula, development of innovative teaching strategies, as well as on the reduction of stigma toward mental illness. People with mental illness are indeed among the most stigmatized, marginalized and vulnerable members of the society and are suffering on a daily basis from discrimination in many areas of their life.

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