



# Changing attitudes to psychiatry and interest in the specialty as a career choice during clinical undergraduate years at a medical school in Penang, Malaysia

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## Abstract

**Background** Studies have suggested that the undergraduate clinical clerkship improves medical students' attitudes to psychiatry and career interest in the specialty, but few studies have explored the sustainability of these changes.

**Aims** To explore changes in students' attitudes to psychiatry and career preference for psychiatry during the course of their senior clinical years at RCSI & UCD Malaysia Campus (RUMC).

**Methods** All year 3 students ( $n = 111$ ) at RUMC were invited to complete the Attitudes towards Psychiatry questionnaire (ATP-30) and a separate questionnaire seeking opinions on career preferences. The questionnaires were administered at 3 points in time: in year 3 before the 8-week psychiatry posting, following completion of the posting in year 4, and at the end of year 5. Quantitative data analysis was performed using SPSS version 18, and free-text responses were thematically analysed.

**Results** One hundred completed questionnaires (90.1%) were returned. There was a significant improvement in students' ATP scores after their psychiatry rotation and this was sustained into year 5. Psychiatry as a career choice had highest preference levels following completion of the clerkship but declined in year 5 to below pre-clerkship preference levels. Qualitative analysis of factors influencing a career in psychiatry revealed themes of job satisfaction, lifestyle factors, perceived image of psychiatry, and self-appraisal.

**Conclusions** Our findings suggest that an enriched undergraduate clinical clerkship experience can help to sustain improved attitudes to psychiatry into the final medical year. However, declining interest in the specialty a career choice prior to graduation presents an enduring challenge.

**Keywords** Attitudes · Career preference · Clinical posting · Malaysia · Medical students · Psychiatry

## Introduction

International studies have highlighted significant problems of unmet need and inequalities between countries in the identification and treatment of mental illness [1, 2]. These problems are compounded by a worldwide shortage of psychiatrists available to meet these needs in both developed and relatively

under-developed countries [3, 4]. These issues are pertinent to the Malaysian context, and more psychiatrists are required. For example, the World Health Organization (WHO)'s 2015 Global Health Observatory reported a ratio of 0.76 psychiatrists per 100,000 population in Malaysia which falls far short of the equivalent recommended ratio of 10:100,000 [5].

The paucity of psychiatrists in the Malaysian context is compounded and perpetuated by socio-cultural barriers in providing adequate mental health care. In many low- and middle-income countries, societal stigma towards mental health problems is highly prevalent and there are negative connotations of being seen attending psychiatric services. It is rather unsurprising that in this context, many people with mental health problems prefer to attend traditional healers who represent a more culturally acceptable form of help than seeking care from mental health professionals [6]. These stigmatising attitudes are also held by healthcare providers, including doctors,

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prompting interest in improving mental health literacy during the undergraduate training of health professionals to help mitigate prevailing cultural influences [7, 8].

International studies consistently find that less than 6% of medical graduates pursue a career in psychiatry, despite the shortage of such specialists, which may indicate that psychiatry is perceived as being a relatively unattractive career option for doctors for the aforementioned reasons [9, 10].

Previous studies have focused on the psychiatry clerkship as being the most important recruitment influence in medical school, and direct contact with patients, supported by an enthusiastic psychiatric faculty, appears to be an important factor in mitigating the effects of earlier socialisation experiences [11]. A systematic review of this topic found that attitudes among medical undergraduates towards psychiatry improved following the psychiatry clinical clerkship in 16 out of 26 studies (61%) [12]. In terms of career preferences, 9 out of 18 studies (50%) reviewed documented a positive change in interest in psychiatry [12]. However, for these changes to impact on ultimate career choice, the positive attitudes to psychiatry would need to be present at the point when major career decisions are made. Few studies have explored whether improved attitudes towards psychiatry are sustained over time, and those that did examine this question found that positive influences from the clinical clerkship often decay during the course of the final medical year, a period of time where in many medical schools, the primary focus is on clinical medicine and surgery [13].

Malaysia's health system has been recognised for its success in delivering basic primary and secondary healthcare, but is facing increasing challenges associated with economic development, in terms of the rapid rise in the prevalence of non-communicable diseases [14]. At the same time, the Malaysian government's health policy has actively promoted medical tourism and as a consequence, the number of private hospitals, mainly offering brief and curative interventions, has burgeoned. In addition, although the number of undergraduate medical programmes has increased so that there are now 32 medical schools in Malaysia, graduates have been more interested in a career in specialties such as internal medicine and surgery which traditionally are associated with increased social status and remuneration, at the expense of less popular specialties including family medicine and psychiatry [15]. The consequent crisis in medical manpower in these latter specialties, especially in light of Malaysia's current and projected health care needs and priorities, represents a major threat to public health and requires concerted national efforts to resolve by all stakeholders in healthcare provision and governance.

The RCSI & UCD Malaysia Campus (RUMC), formerly known as Penang Medical College, is Malaysia's longest-established foreign-owned medical school and is owned and operated by two Irish universities in partnership, the Royal College of Surgeons in Ireland (RCSI) and University

College Dublin (UCD). RUMC students spend an initial 2.5-year period at either RCSI or UCD in Dublin, after which they complete their clinical training in Penang.

In the 4th medical year, students are divided into four groups that rotate through 8-week attachments in Psychiatry, Obstetrics and Gynaecology, Paediatrics, and Public Health/Radiology/Emergency Medicine, before commencing final year (year 5). The final year begins with a 10-week elective period in which students undertake any medical attachment of their choice at any geographical location, before rotating through 6-week postings in Surgery and Internal Medicine, and 3 weeks each of Family Medicine and Orthopaedics. The final medical year's Family Medicine module incorporates basic knowledge of all subspecialties (including Psychiatry) in its curriculum and assessment.

Over the past 6 years, RUMC Department of Psychiatry's undergraduate psychiatry clinical clerkship has introduced progressive curricular changes intended to promote the integration of psychiatry within general health care through on-site learning experiences in publicly funded primary care and community settings. Evaluations of these initiatives have been previously reported and were found to promote positive attitudinal change while providing added educational value in comparison with more traditional hospital and clinic placements, from the student perspective [16, 17].

However, questions remain as to whether such educational developments can impact positively on medical undergraduates' global attitudes to psychiatry, as measured objectively, or prompt them to actively consider a career in psychiatry. A previous study by our department exploring the impact of a promotional film by the Royal College of Psychiatrists in improving attitudes and recruitment interest among undergraduates has illustrated the difficulties in identifying measures that actually succeed in increasing recruitment to psychiatry [18]. Against this background, we carried out a study which aimed to explore changes in students' attitudes to psychiatry and career preference for psychiatry during the course of their senior clinical years at RUMC.

## Methods

### Sample and design

All year 3 students ( $n = 111$ ) at RUMC were invited to participate by completing two questionnaires: the Attitudes towards Psychiatry questionnaire (ATP-30), and a separate questionnaire, developed by the authors, seeking opinions on career preferences.

The Attitudes towards Psychiatry Questionnaire developed by Burra et al. (1982) is a 30-item, 5-point Likert-type scale exploring the following domains: psychiatric patients, mental illness, psychiatrists, psychiatric institutions, teaching and

career choice in psychiatry. A higher total score implies a more favourable attitude with minimum score 30 (very negative attitude), maximum score 150 (very positive) and neutral value at 90. This questionnaire has demonstrated good validity and reliability, and has been widely used for comparative purposes between medical schools at a national level and for international comparison across the globe [19].

The second questionnaire was developed by the authors and comprised three parts. Section A contained socio-demographical data of respondents, Section B measured career preference towards psychiatry on a 5-point Likert scale (1 = definitely not, 5 = chosen career) and Section C elicited open-ended responses regarding positive and negative factors influencing the choice of psychiatry as a career specialty.

The questionnaires were administered at three points in time: in year 3 before the 8-week psychiatry clinical posting (time 1), following completion of the posting in year 4 (time 2), and again at the end of year 5 (time 3). Students were given hard copies of the questionnaires to complete at the end of a whole class lecture sessions at the three time points. Student identification numbers, which are used throughout their clinical years at RUMC, were used to link individual respondent scores over the three data collection times, but the names of students were not matched to these numbers to preserve anonymity. The students were assured that they were under no obligation to participate, and that their decision to participate or otherwise would not affect their academic grades. Completion of the questionnaires implied consent. Ethical approval was obtained from the local Joint Penang Ethics Committee, which is independent of the university.

### Data analysis

The Statistical Package for Social Sciences (Version 18) was used for quantitative data analysis. Paired *t* tests were used to compare data between any two of the three data collection times. A Spearman’s rank correlation coefficient analysis was employed to determine correlations between students’ ATP-30 scores and career preference. Three of the authors (EH, VR and UV) initially coded free-text responses and subsequently thematically analysed the responses in relation to the aims of the study. Following discussion among the authors to resolve areas of divergence and overlap, a final set of themes was agreed by consensus.

### Results

One hundred complete questionnaires were returned across the three data collection time points, for a response rate of 90.1%. There were dropouts at each stage of collection [time 1 to time 2 (*n* = 3, 2.8%); time 2 to time 3 (*n* = 3, 2.8%)], which could be attributed to students being absent during the

times of data collection. Table 1 outlines the socio-demographic characteristics of respondents at time 3.

### Quantitative findings

A significant increase between students’ ATP-30 scores before (time 1) and after their psychiatry rotation (time 2) was observed [ $t(103) = -9.279, p = 0.000$ ]. This effect persisted into year 5 when students were surveyed just prior to graduation (time 3) as there was no significant difference recorded when comparing time 2 and time 3. ATP-30 scores at time 3 were observed to be significantly higher than at time 1 [ $t(100) = -6.584, p = 0.000$ ] (Table 2).

Significant differences were found in students’ career preference towards psychiatry across the three time points [Wilk’s  $\Lambda = 0.525, F(2,99) = 44.86, p = 0.000$ ]. The students’ preference towards psychiatry as a career was highest after their psychiatry rotation, compared to their career preference before the rotation [ $t(106) = -4.313, p = 0.000$ ], and their career preference (psychiatry) during their 5th year [ $t(100) = 9.488, p = 0.000$ ]. Psychiatry as a career choice during year 5 recorded preference levels that were significantly lower than before their psychiatry clinical attachment [ $t(100) = 4.465, p = 0.000$ ]. This reduced preference for Psychiatry resulted from a relative increase in students’ preference for the specialties of Internal Medicine and Surgery at time 3. Students who had earlier indicated a strong interest in Psychiatry as a career, after the clinical clerkship in psychiatry, were more inclined towards Internal Medicine by the end of the final year.

There was a significant positive correlation between students’ ATP-30 scores and career preference across all three data collection time points (Table 3). There was no significant correlation between the socio-demographic factors of ethnicity, marital status or gender, with both ATP-30 scores and career

**Table 1** Socio-demographic characteristics of respondents (*n* = 100)

Characteristic	<i>n</i>	%
Ethnicity		
Malay	63	63
Chinese	27	27
Indian	7	7
Other race	3	3
Marital status		
Single	96	96
Married	4	4
Gender		
Female	59	59
Male	41	41

*n*, actual number of respondents; %, percentage

**Table 2** Comparison of students' ATP-30 scores and career preference

	Time 1 <i>n</i> = 106 Mean (SD)	Time 2 <i>n</i> = 103 Mean (SD)	Time 3 <i>n</i> = 100 Mean (SD)
ATP-30 score	102.67* (10.42)	113.62* (10.90)	113.10 (12.67)
Career preference (psychiatry)	2.90* (1.15)	3.51* (0.93)	2.15* (1.12)

*n*, actual number of responses; *SD*, standard deviation; *ATP-30*, Attitudes towards Psychiatry Questionnaire

\*denotes significance at  $p = 0.000$

preference. Previous student involvement in volunteer activities and previous direct contact with people with mental disorders were not observed to have a significant effect on respondents' ATP-30 scores and career preference.

## Qualitative findings

### Positive factors influencing career preference for psychiatry

We asked respondents what would attract them towards choosing psychiatry as a career specialty and identified themes that were generally replicated through year 3 to year 5. A dominant theme that emerged was job satisfaction in that a large proportion of students appeared to place high value in the ability to make a difference in patients' lives, as the following free-text responses to open-ended questions illustrate:

“Joy of being able to help the patient and address their innermost fears.”

“Able to ease mental suffering that patients may be suffering for years and the fact that people undermine psychiatric illnesses until it affects themselves or their loved ones.”

Respondents also acknowledged job style to be a positive factor as they viewed psychiatry as a holistic discipline that employs the bio-psycho-social model and recognises the patient's humanity. Under this theme, students also articulated

**Table 3** Correlation between ATP-30 scores and career preference in psychiatry

ATP-30 score	Career preference ( <i>p</i> value)
Time 1	
Correlation coefficient	0.280 (0.004)
Time 2	
Correlation coefficient	0.295 (0.002)
Time 3	
Correlation coefficient	0.206 (0.039)

*ATP-30*, Attitudes towards Psychiatry Questionnaire; *p*, probability

interest in the workings of the human mind, and the patient-centred communication that they perceived to occur in the discourse between psychiatrists and patients.

“Understanding the mind which I feel is the biggest part in curing many physical diseases as well.”

“The fact that you try connect with your patient & really understand what's going on with them.”

There were several references to positive lifestyle factors associated with the psychiatrist's working life, such as perceived opportunities for enhanced family friendliness and flexible working hours, identified predominantly by year 5 students.

### Negative factors influencing career preference for psychiatry

When asked what was the least attractive aspect of psychiatry as a career choice, a prevailing theme identified was the persisting negative image of psychiatry and its perceived status within the medical profession, as viewed by students themselves, peers and the public at large. The following responses by year 5 respondents illustrate perceived negative connotations attached to psychiatry:

“I'm afraid of crazy people.”

“Lack recognition among peers. Does not appear highly regarded.”

“Society's perception that psychiatry is not a branch of medicine. Spending the rest of my life convincing people I'm a 'real' doctor.”

A number of free-text responses conveyed the perceptions that mental health conditions were chronic illnesses, and that both interviewing patients and providing treatment were time-consuming and mentally exhausting. Under this theme, respondents also suggested that dealing with potentially violent patients was a deterring factor. Several responses associated psychiatry with a lack of a biological approach, as well as

fewer opportunities to utilise their clinical knowledge of other fields of medicine and to employ practical clinical skills.

“Not much to do with the biological aspects of patients and not much diagnostic medicine is involved. Less opportunity to apply other medical knowledge.”

A further theme that emerged was that of negative self-appraisal of students’ suitability for psychiatry as a career, as they did not have the patience to provide mental health care, while some expressed discomfort in having to probe into another person’s life. Students also referenced the negative factors relating to financial income, the quality of healthcare facilities in Malaysia, and a perception that psychiatry is less professionally rewarding compared to other specialties.

This open-ended response summarises the principal negative factors:

“Not as challenging as other fields and rarely are patients fully cured so not as much job satisfaction. Patients are chronic.”

## Discussion

We found support for the majority of previous studies in indicating that the undergraduate clinical attachment may exert a positive impact on attitudes to psychiatry after completing the posting [12]. We also found that improved attitudes towards psychiatry were sustained into the final medical year but this was not reflected in interest in the specialty as a career choice, which decreased in year 5 (final medical year). The positive themes that were identified as influencing consideration of a career in psychiatry were perceptions of job satisfaction, psychiatry’s holistic approach and lifestyle factors. The identified deterring factors were perceptions of a negative image of psychiatry held by society, and self-appraised unsuitability for the specialty.

Our findings contrast with those of the existing literature in two respects; firstly, improved attitudes to psychiatry were sustained into final year and secondly, background factors of socio-demographics (gender) and previous contact with people with mental health disorders had no significant effect on students’ ATP-30 scores and career preference.

Although previous studies have reported that prior contact with people with mental health disorders exerts a positive influence on attitudes towards psychiatry, and that women are more inclined towards psychiatry [20], our findings suggest a neutral effect. This could suggest support for the notion that the aforementioned factors play a smaller role in altering

perspectives towards psychiatry as compared to the impact of clinical undergraduate teaching.

Studies have attributed favourable attitudes towards psychiatry to a positive educational experience but what constitutes a positive learning experience has not been adequately explored [21]. In our setting, students receive face-to-face teaching sessions from faculty members, including small group tutorials on campus, combined with clinical ‘real world’ exposure to patients in secondary care settings including a psychiatric inpatient unit and outpatient clinics. These are typical of the undergraduate psychiatry learning environment across different healthcare systems [22]. However, what is rather different about our undergraduate training programme, compared with most traditional undergraduate postings in psychiatry, is that our students also actively participate in a consultation/liaison psychiatry service to primary-care clinics where common mental health disorders are co-managed by psychiatrists and medical officers, and students attend community services delivered by voluntary agencies where recovering or well patients are re-integrated into society. We suggest that these learning opportunities complement the more traditional elements in the curriculum and have provided added educational value from the perspective of students while also sensitising them to the importance of integrating mental health care into their future practice [16, 17].

As the great majority of medical undergraduates do not go on to become psychiatrists, these exposures could have contributed to a sustained favourable view of psychiatry by allowing them to see its relevance to their future practice as physicians. What seems clear, however, is that this potential benefit did not translate into students perceiving psychiatry as an attractive career choice, reflecting a dissonance between attitudes and recruitment which has been observed in other studies [23]. The decrease in recruitment interest from year 4 (just after psychiatry posting) to the final year could possibly be explained by enthusiasm that dissipates upon discovering an interest in other specialties in year 4 and 5. Our findings tend to support other studies in this regard, insofar as the reduced interest in psychiatry in year 5 reflected an increased interest in internal medicine and surgery, specialties that predominate in the final year curriculum [24].

Thematic findings from students’ responses to open questions exploring the appeal of psychiatry as a career conveyed a strong sense that students held negative views surrounding the anticipated working conditions of psychiatrists and the status of the specialty within the wider healthcare context. The impact of students’ exposure to the environment in which local psychiatric services are delivered, their awareness of the overall position of psychiatry within Malaysian healthcare, as well as the enduring societal stigma surrounding mental illness, must be considered in interpreting the divergence between sustained positive findings from ATP-30 and the more negative responses to the career-preference questionnaire. One

graphic illustration of this was the fact that students' contact with acute psychiatric inpatients occurred in a unit that had originally been located within the general hospital but subsequently moved to a stand-alone building that was not fit for purpose, several kilometres away from the main teaching hospital. Such an enforced move away from mainstream secondary medical care facilities, combined with an experience of the relatively poorer facilities provided to patients and staff, may have predictably negatively impacted on students' attitudes and illustrated the uphill battle of a career psychiatrist in combatting stigmatising attitudes within the healthcare system itself [25]. Students would have also been aware that the role of their academic psychiatry faculty at RUMC in providing on-site consultation to primary care was not representative of the working life of psychiatrists in under-resourced Malaysian mental health service settings. It seems reasonable to conclude, therefore, that the impact on students of the RUMC psychiatry clerkship, while sufficient to improve their overall attitudes to psychiatry, was not strong enough to overcome countervailing influences in a wider societal context, such that psychiatry, relative to other specialties, remained unattractive as a career choice.

A further theme emerged with regard to the perceived appeal of psychiatry within the context of students' self-appraisal, in that some respondents deemed themselves less suited to the emotional demands and patience required in the doctor-patient relationship in psychiatry as their opinions crystallised in the final year. Students who demonstrated a predisposition to psychiatry cited interest in the psychosocial aspect of medicine, while also expressing an appreciation of the importance of empathy and building personal relationships. In comparison, those less-inclined towards a career in psychiatry were deterred by a perceived lack of academic challenge and the relatively narrow scope of psychiatry that was construed as a minimal utilisation of their knowledge and practical skills in other medical fields.

Previous studies of deterring factors have suggested similar criticisms of psychiatry as a medical field and this should be interpreted with caution in the context of suggestions of improving psychiatry's curricula to attract greater interest [26]. While the undergraduate training has to be more inclusive in teaching content and skills relevant to all doctors, a balance has to be found between emphasising the biological basis of psychiatry in diagnosis and psychopharmacology, and maintaining the psychosocial aspects of treatment that attracts students who are contemplating careers involving psychotherapies. Our thematic findings should also be contextualised within the broader context of the current state of evolution of psychiatry as a medical specialty in Malaysia, and the fact that students' perceptions may be influenced by the limited scope and opportunities within the specialty, relative to those that exist within longer-established specialties.

Future studies could further elucidate the barriers to considering a career in psychiatry in more depth by means of focus group discussions. Following up respondents after graduation upon entry into training pathways would provide a clearer longitudinal picture of the impact of clinical clerkship and factors impacting recruitment.

The strength of our study lies in its longitudinal design as questionnaires were administered at three time points, from year 3 to the final medical year. We used an established, well-validated instrument, in the form of the ATP-30 to measure changes in attitudes towards psychiatry. Other strengths include a high response rate and that the demographic profile of respondents reflected that of the class as a whole and the ethnic profile of Malaysian medical students at a national level. Limitations include the setting of a single medical school, which limits extrapolation to other settings. We acknowledge that our students spent the first 2.5 years in a western medical school, which could also potentially impact their ATP-30 scores, although they were not assigned to a psychiatric service as part of their undergraduate medical course while they were there.

In conclusion, our findings demonstrate that the undergraduate clinical teaching which is presented positively and includes exposure to psychiatry in primary care liaison service exerts a sustained positive impact on attitudes to psychiatry but this does not translate into persisting greater interest towards psychiatry as a career choice by final year of medical school.

Previous studies have called for the integration of psychiatry throughout the medical school curriculum by incorporating psychiatric components in a holistic approach to patient care in the teaching of other specialties, but data is scarce on the impact of this measure on recruitment [11]. The RUMC curriculum includes psychiatry within the family medicine module in year 5, but this may be insufficient to reinforce the positive impact of the clinical attachment in psychiatry in year 4. Our finding of subsequent increased interest in the established specialties of internal medicine and surgery, at the expense of psychiatry, supports the argument for the benefits on recruitment of formally including psychiatry in both the teaching and assessment of these specialties in the final year, thereby reinforcing the relevance and potential appeal of psychiatry immediately prior to graduation.

Addressing the low recruitment rates in psychiatry may also require effort on behalf of the psychiatry faculty to identify subgroups with an interest in the specialty, nurturing them through enrichment activities such as student electives and research opportunities [27]. To further improve and sustain positive attitudes towards psychiatry, students should certainly be involved in active and experiential learning, and made felt a part of the clinical team [28]. However, whether such combined measures could impact meaningfully in a Malaysian context, without a concurrent increased investment in mental

health services and without a broader shift in societal attitudes that elevate the relative status of the specialty and enhance the working conditions of Malaysian psychiatrists, remains uncertain.

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## Compliance with ethical standards

**Conflict of interest** The authors declare that they have no conflict of interest.

**Ethical approval** All procedures were in accordance with the ethical standards of the institutional research committee and with the Helsinki Declaration and its later amendments or comparable ethical standards.

**Informed consent** Informed consent was obtained from all individual participants included in the study.

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