Recruitment problems in psychiatry have been long-standing; between 1974 and 2000 the percentage of UK medical graduates choosing a career in psychiatry has remained around 4%. There is growing concern over the future of British psychiatry. It had the lowest number of applicants per training place in 2010, and historically the highest proportion of overseas applicants to specialty training places (86%) of all medical specialties. Although international medical graduates are vital to psychiatric services, fewer pass MRCPsych examinations than UK graduates. There are also concerns about communication and cultural understanding among some international medical graduates, qualities of particular importance to psychiatry. The widespread feeling is that more UK graduates are needed in the specialty.

Medical students’ misgivings about psychiatry

The intention to pursue psychiatry among sixth-form students is high at 12.4%, yet on entry to medical school attitudes towards psychiatry are less favourable than attitudes towards other specialties, perhaps because of medical school selection criteria. Some medical students feel psychiatry is not scientific enough (35.5%) and does not make use of their medical skills (17.2%). They also believe psychiatry has stressful working conditions, ineffective treatments (24.1%) and that patients do not improve. Furthermore, they hold negative views of psychiatrists themselves, believing they are ‘second-rate’ doctors (9.2%) or are emotionally unstable (4%). Those medical students with an interest in psychiatry face stigma from other students and teachers. Indeed, ‘bad-mouthing’ against psychiatry from doctors is widely reported, starting from the first year of medical school.

Aims and method

Psychiatry in the UK has long-standing issues in recruiting UK-trained doctors. A key potential influence on interest in psychiatry during medical school is the clinical attachment. This narrative review investigates how the clinical experience of psychiatry affects medical students’ attitudes towards the specialty.

Results

We identified 107 studies, of which 46 were included. They showed that clinical attachments in psychiatry did result in more positive attitudes towards the specialty and increased career interest. There was inconsistent evidence on whether interest was maintained, with some studies indicating that the increase is transient. Factors which may influence attitudes include attachment setting, duration and student demographics.

Clinical implications

The results suggest a need to actively maintain interest in psychiatry throughout medical school. Research with long-term follow-up and evaluation of schemes to maintain students’ interest is needed.

Declaration of interest

None.
Method
In March 2011, we searched BIOSIS Previews (1969–2011), EMBASE (1980–2011), MEDLINE (1950–2011), PsycINFO (1806–2011), Scopus (1960–2011) and Web of Science (1899–2011) databases for the following free-text words in the title and abstract: undergraduate, medical students, medical school; attitudes, perception; psychiatry, psychology; change, cohort. Additional search methods included hand-searching bibliographies of retrieved publications, citations of retrieved publications and Google Scholar. We excluded studies that were not in English, did not include exposure to people with mental illness, carried out an intervention, were not from the UK, Europe, North America, Australia or New Zealand, or were from before 1990, because of the subsequent changes in psychiatry and medical education. However, we considered studies published after 1980 if they included long-term follow-up, as this was rarely undertaken.

The data were synthesised into four evidence levels (Table 1), as taken from de Croon et al.20

Results
In total, 107 publications were identified, of which 61 studies were excluded. Therefore, this review is based on 46 publications, which report 41 studies; 31 studies explored attitude change following attachments in general psychiatry. Another study22 did not specify direction of attitude change so is not included in the analysis. There were 8 cross-sectional studies, 22 longitudinal studies and 1 study using both designs. The Studies used a variety of tools, including the Attitudes to Mental Illness Questionnaire,22 the Attitudes Towards Psychiatry questionnaire (ATP-30),23 the Child and Adolescent Psychiatry Experiences Questionnaire,24 the Libertarian Mental Health Ideology Scale,25 the Opinions About Mental Illness questionnaire,26,27 the Specific Attitudes towards Psychiatry questionnaire,28 and the Derogatis’ Symptom Checklist.29 Other studies created their own tools. Of the remaining included studies, five explored attitude change following attachments in subspecialties and four focused on the impact of curriculum or setting on attitudes.

Overall, the evidence suggests that attitudes to psychiatry significantly improved after clinical attachments, although the evidence level is inconsistent (positive: 20; no change: 11; negative: 1; note that this includes two results from Kuhnigk et al30 as this study had a cross-sectional and a longitudinal group). Taken alone, cross-sectional studies surveying attitudes towards general psychiatry across medical school years provided inconsistent evidence (positive: 4; no change: 4; negative: 1). In contrast, longitudinal studies, where attitudes were measured before and after attachments, provided strong evidence of a positive change following clinical exposure (positive: 16; no change: 7; negative: 0).

Nine of the longitudinal studies used the ATP-30, a 30-item questionnaire exploring attitudes towards people with psychiatric illness, psychiatric illness itself, treatment, psychiatric institutions and psychiatrists, teaching, knowledge and career choice.23 The ATP-30 contains a mixture of positively and negatively worded statements rated on a five-point Likert scale. Higher scores indicate more favourable attitudes, with 150 being very positive, 90 being neutral and 30 being very negative. The results are presented in Fig. 1,23,30–36 except for one study which did not report total scores.37

Of all the studies included, only eight had a long-term follow-up, varying between 3 months and 10 years. Seven found positive attitude change post-attachment, but provided inconsistent evidence on whether this change was maintained (maintained: 3; mixed: 1; not maintained: 3). Even where positive attitude change was maintained, some decay was reported.34 Moreover, in some studies attitudes declined to below pre-attachment levels.33,38 There has been no investigation of whether transient attitude improvement is seen following other specialty attachments.33

The relationship between clinical attachments, attitudes to psychiatry and subsequent career interest was explored by 14 studies. They provided strong evidence of increased career interest post-attachment (increased: 10 studies; no change: 3 studies; decreased: 1 study). This increased career interest appears to be mediated by a change in attitude towards the specialty; the only studies not reporting increased career interest post-attachment were those in which students showed no positive change in attitudes. One study compared attitudes with actual career decisions, finding that the strongest predictor of actual career choice was post-attachment attitude.39

| Table 1 Criteria for evidence levels |
|-------------------------------------|
| Evidence level | Criteria |
| 1 No evidence | ≤1 study available |
| 2 Weak evidence | 2 studies available that find a significant association in the same direction or 3 studies available, of which 2 find a significant association in the same direction and the third study finds no significant association |
| 3 Strong evidence | 3 studies available that find an association in the same direction or >4 studies available, of which >66% find a significant association in the same direction and no more than 25% find an opposite association |
| 4 Inconsistent evidence | Remaining cases |
| No association | |
| Weak evidence | >4 studies, of which >75% find no association |
| Strong evidence | >4 studies, of which >85% find no association |
two studies suggested the attachment had a significant influence on the decision not to pursue a career in psychiatry. For example, after students completed their attachment, Creed & Goldberg investigated how likely they were to pursue psychiatry: 11% were ‘less likely’, 23% were ‘unchanged’, 55% were ‘somewhat more likely’ and 11% were ‘much more likely’.

Only three studies contained a longer-term follow-up on career interest. Career interest was maintained in one study at 2–3 years and not maintained in the remaining two studies at 2 years and 5 years.

Attitudes and features of the attachment

Three studies explored the effect of attachment setting on attitudes, providing inconsistent evidence. Bobo found that the setting (including an acute in-patient ward, a hospital-based consultation-liaison service, and an out-patient mental healthcare clinic) made no difference to attitudes. In contrast, Clardy found there to be increased career interest in out-patient attachments compared with the emergency room, children’s hospital, in-patient or consultant liaison settings, but reported that this did not influence actual career choice. Walters found that students valued primary care-based teaching highly compared with teaching in hospital settings. Benefits included seeing the milder spectrum of mental illness and less stereotyping of patients with severe mental illness. In studies where attachments consisted of a block of a subspecialty of psychiatry, there was evidence of positive attitude change after attachments in child and adolescent psychiatry (weak evidence) and addictions psychiatry (strong evidence).

Oakley & Oyebode examined attitudes to the psychiatry curriculum. Students favoured more integration, with the overall curriculum and teaching focused on scenarios they expected to encounter in their early employment, such as suicide risk assessment. Two studies explored the impact on attitudes of a problem-based learning compared with a traditional curriculum. Both found no difference, providing weak evidence that curriculum design within psychiatry does not affect attitudes.

Attachment length varied from 2 to 16 weeks across studies in this review. Although Singh primarily looked at the impact of curriculum on attitudes, theirs was the only study to examine the impact of attachment length. They found no clear association between attitudes and duration. However, given that the primary difference was curriculum rather than duration, this evidence is limited.

Studies examining experiences during the attachment found an association between increasing positive attitudes and: positive course ratings; involvement in in-patient care; seeing good response to treatment; and encouragement from consultants during the attachment. This indicates that experiences of teaching can have a positive impact on students regardless of pre-attachment attitudes. On the other hand, poor teaching and unwelcoming staff seem to contribute to negative attitudes. Interestingly, there is strong evidence that better academic performance on a psychiatry attachment does not correlate with increased positive attitudes to the specialty (positive correlation: 2 studies; no correlation: 5 studies).

Sociodemographics

Sociodemographic variables were examined. One study found no difference in attitudes to psychiatry between graduate and undergraduate students. Those who had studied humanities were also no more likely to have positive attitudes than those who had studied sciences. Although there is insufficient evidence to rate the strength of findings, support is provided by Lambert’s large UK survey, which found that the medical career choices of graduate entrants were similar to those of non-graduates.

Sixteen studies explored the association between gender and attitudes to psychiatry, providing inconsistent evidence (females more positive: 5 studies; no correlation: 11 studies). Two studies suggested career interest was greater in males, although the evidence level is weak.

Ethnicity and nationality have also been addressed. One study reported more negative attitudes in students from outside the European Union, but it is limited by a small sample. Korszun et al found Chinese and South Asian students had more negative attitudes towards patients with long-standing delusions and hallucinations than White British students.

Finally, prior personal experience of mental illness was explored. There is strong evidence that experience of mental illness is associated with more positive attitudes among...
medical students (positive: 6 studies; no correlation: 2 studies).

Discussion

This review suggests that psychiatry attachments can positively influence attitudes and career interest. Existing research shows this may be transient; however, long-term follow-up is limited. The results reflect psychiatry's low popularity among medical students and applicants for training posts. Students may benefit from out-patient and primary care settings and exposure to subspecialties, rather than general adult psychiatry in in-patient settings. Socio-demographic factors, including previous degrees and gender, appear to have little association with positive attitudes. Students trained outside the European Union may have less favourable attitudes.

Attachment features

The role of attachment setting is uncertain. Although it is reported that students find out-patient attachments more useful and rewarding, this may not affect their career choice. In-patient attachments may reinforce negative attitudes, for example that psychiatric illnesses are untreatable. However, students benefit from continuity, closer supervision and demonstration of obvious psychopathology. In addition, integrating psychiatry teaching with primary care has been advocated.

Features of the attachment, such as duration, seem less important than its quality. Indeed, a large American survey found no association between duration of attachment and psychiatry recruitment. The weak evidence of positive attitude change after a child and adolescent psychiatry placement and strong evidence for change after addictions psychiatry, highlight the importance of exposing students to subspecialties. This increases awareness of the diversity within psychiatry.

There was strong evidence that greater academic performance in psychiatry following an attachment does not correlate with improved attitudes. Fabrega therefore argues that improving students’ knowledge is not the priority in psychiatry recruitment. Rather, the focus should be on helping students see psychiatric patients in a more human and positive light.

Sociodemographic factors

The review suggests that personal experience of mental illness is associated with more positive attitudes among medical students. The same is well demonstrated for lay populations. Despite the widely held assertion that females have more positive attitudes towards psychiatry than males, gender correlations were inconsistent. Given that two-thirds of medical students are now female, there is a need for prominent female role models within psychiatry, as well as in other specialties.

Perhaps not surprisingly, results suggest attitudes vary with ethnicity. Though under-researched, several factors identified in the general population may be relevant to medicine. Cinnirella & Loewenthal's UK qualitative study highlights religious factors. For example, Indian Hindus cited 'bad spirits' as a cause of mental illness, whereas among Pakistani Muslims lack of faith was believed to be a causal factor in depression. Fear of stigma from the community was widespread among Orthodox Jewish, Pakistani Muslim and African-Caribbean Christian participants.

Wider context

It is important to consider these results in a wider context. Overall, medical student attitudes towards psychiatry have become more positive over the past 50 years, mirroring changes in the general population’s attitudes towards mental illness. Therefore attitudes alone do not explain psychiatry's current recruitment problem. A trend observed for decades is a decline during medical school in idealism, empathy and attitudes towards patient-centred care. One could postulate there is something innate within medical school education which erodes the characteristics needed in future psychiatrists. This, combined with the negative attitude of non-psychiatrists to the specialty, may partly explain the disparity between interest in psychiatry expressed by sixth-form students when compared with medical students. Alternatively, a loss of idealism and empathy experienced at medical school may reflect a loss of naivety and increased realism, which are important survival mechanisms for the future doctor.

Although recruitment is particularly topical and a contemporary concern for the specialty, it is important to remember that most medical students will not go into psychiatry, but are likely to encounter psychiatric issues in many fields of medicine. Given that even common mental illnesses such as depression have low levels of recognition among non-psychiatric physicians, it is important to strive to improve the attitudes of all medical students towards psychiatry, regardless of their eventual career choice.

Limitations of the literature base

Existing studies are limited by a number of methodological issues. First, few studies examined attitude change in control groups. One study by Arkar & Eker found that attitudes to psychiatry also improved in students undertaking an ophthalmology attachment, bringing into question the significance of findings from studies without controls. However, controls in the study were not randomly selected but were medical students and attitudes were measured at different times, limiting reliability. Additionally, there were two other studies containing control groups in which there were no positive attitude changes in controls.

Second, social desirability bias limits the findings. This was assessed in two studies using the Marlowe–Crowne Social Desirability Scale and found not to correlate with attitudes. Although many studies tried to limit the impact of this bias by emphasising that responses would not affect assessments and were anonymous, it is still likely to be active.

Third, the studies used a variety of different methods, limiting comparability. In particular, few studies used a longitudinal design or included long-term follow-up of attitudes.
Finally, there is a need for the development of a new or updated measure of student attitudes towards psychiatry. Qualitative research may be beneficial to the development of such a tool and to further exploration of the reasons behind lack of career interest in medical students.

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