

# Improving the quality of junior doctor training experiences in psychiatry: An exploration of the literature

Report prepared by Aspasia Karageorge

19 August 2014

<b>AIMS OF WORK</b> .....	<b>3</b>
<b>RESEARCH QUESTIONS</b> .....	<b>3</b>
<b>BACKGROUND TO LITERATURE SEARCH</b> .....	<b>4</b>
<b>PREVOCATIONAL TRAINING</b> .....	<b>4</b>
<b>INFLUENCE OF PSYCHIATRY TRAINING ON CAREER CHOICE</b> .....	<b>4</b>
EXPOSURE TO CLINICAL PSYCHIATRY .....	4
QUALITY OF CLINICAL PSYCHIATRY EXPOSURE.....	4
<b>METHODS</b> .....	<b>6</b>
<b>NARRATIVE SYNTHESIS</b> .....	<b>6</b>
<b>SEARCH STRATEGY</b> .....	<b>6</b>
ELIGIBILITY: INCLUSION/EXCLUSION CRITERIA.....	6
SEARCH TERMS AND LOCATIONS.....	7
<b>FLOWCHART</b> .....	<b>8</b>
<b>REPORTING ON THE LITERATURE</b> .....	<b>9</b>
STAGE 1: DESCRIPTION .....	9
STAGE 2: SYNTHESIS.....	9
<b>TERMINOLOGY USED IN THIS REPORT</b> .....	<b>9</b>
<b>RESULTS OF LITERATURE REVIEW</b> .....	<b>10</b>
<b>SECTION ONE: CLINICAL EXPERIENCES IN MEDICAL SCHOOL</b> .....	<b>10</b>
AUSTRALIA .....	10
UNITED KINGDOM.....	11
INTERNATIONAL REVIEWS .....	12
TRANSNATIONAL STUDIES .....	13
NORTH AMERICA & EUROPE .....	13
<b>SECTION TWO: JUNIOR DOCTOR (PREVOCATIONAL TRAINING) EXPERIENCES</b> .....	<b>14</b>
AUSTRALIA PREVOCATIONAL TRAINING: PGY1 AND PGY2.....	14
THE UK FOUNDATION PROGRAMME: FY1 AND FY2 .....	14
<b>SECTION THREE: SUPPLEMENTARY LITERATURE</b> .....	<b>16</b>
VOCATIONAL TRAINING EXPERIENCES.....	16
RANZCP TRAINING .....	16
UNITED KINGDOM .....	16
NORTH AMERICA .....	16
EUROPE.....	17
TARGETTING STIGMATISATION OF PSYCHIATRY THROUGH EDUCATIONAL EVENTS .....	17
<b>SYNTHESIS AND RECOMMENDATIONS</b> .....	<b>19</b>
Table 2: Clerkship factors received positively.....	21
Table 3: Clerkship factors received negatively .....	23
<b>FUTURE RESEARCH DIRECTIONS</b> .....	<b>24</b>
<b>REFERENCE LIST</b> .....	<b>25</b>
<b>APPENDIX A: SUMMARY OF SUMMER SCHOOL COMPONENTS FROM BEATTIE (2013)</b> .....	<b>28</b>

## AIMS OF WORK

In order to evaluate (and improve) the quality of prevocational psychiatry training in NSW, we must first understand which aspects of training are most influential in determining a favourable experience. What factors make a rotation in psychiatry good (perception of trainee) and successful (results in specialisation)?

The objective of this report is a review of recent literature to identify factors associated with favourable psychiatry training terms undertaken by prevocational doctors (PGY1/PGY2 and international equivalents) and medical students. This review will inform the content of a survey evaluating junior doctor experiences of psychiatry rotations in NSW. More specifically, the following questions will guide the search of evidence:

## RESEARCH QUESTIONS

1. Which qualities of a prevocational psychiatry term (PGY1, PGY2, and worldwide equivalents) are most influential in determining a favourable perception of psychiatry among medical students and junior doctors?
2. Which aspects of the prevocational psychiatry term would be most useful to survey to determine areas of success and areas for improvement in NSW?

## BACKGROUND TO LITERATURE SEARCH

### PREVOCATIONAL TRAINING

In NSW, prevocational trainees or junior doctors consist of interns (PGY 1), residents (PGY 2+) and international medical graduates who are undergoing supervision (IMGs). Junior doctors have not yet commenced training in a vocational training program and rotate through several training terms and placements.

Most similar to Australia, postgraduate general medical training in the UK consists of two foundation years (FY1 and FY2) which roughly match on to PGY1 and PGY2.

In North America, the structure of medical training differs more considerably to that of Australia. In Canada, medical students choose an area of specialty during the final undergraduate year and receive vocationally-oriented training immediately following graduation through specialist postgraduate colleges (5 years for psychiatrists). Canada's medical training system is based on the CanMEDS framework. Similarly, in the USA, M.D. graduates begin vocational training immediately (4 years for psychiatry residency). The first year of residency is referred to as 'internship', followed by 3 more years of residency.

### INFLUENCE OF PSYCHIATRY TRAINING ON CAREER CHOICE

See Lyons (2013) for a systematic review of the *attitudes* of medical students toward psychiatry and psychiatry as a career (cross-sectional design studies). The studies reviewed in Lyons (2013) do not report on experiences or influences of psychiatry exposure as a medical student or junior doctor, however, so will not be described here.

### EXPOSURE TO CLINICAL PSYCHIATRY

Prevocational training during the intern (PGY 1) and resident (PGY 2) years has a strong influence over career choice. Psychiatry is often presented as an elective term, meaning that the duration and intensity of clinical exposure can vary widely from student to student. Increasing clinical exposure to psychiatry in the prevocational years has been associated with increased recruitment to vocational training programmes. A retrospective survey of psychiatry residents about their undergraduate experience with psychiatry found that exposure to a psychiatry clerkship or elective was more influential on choosing psychiatry as a career than other non-clinical factors (career nights, psychiatry dinners, institute activities, research scholarships) (Manassis, Katz, Lofchy, & Wiesenthal, 2006). In addition, drawing on self-report data from final-year medical students across 20 countries, Farooq and colleagues (2014) found that *"experience of a psychiatry special module made choice of psychiatry slightly more likely (45%) than those who had no exposure"*.

### QUALITY OF CLINICAL PSYCHIATRY EXPOSURE

*"the duration of exposure to psychiatry may be less important than the nature of that exposure"*  
(Manassis et al., 2006)

Clinical exposure to psychiatry is not sufficient alone, however, to increase attitudes toward psychiatry, or recruitment. Earlier literature from the USA suggested that the *quality* of prevocational psychiatry training may in fact be a more influential factor on career choice into psychiatry (F. S. Sierles & M. A. Taylor, 1995), and recent research has supported this hypothesis (Rachel Maidment, Gill Livingston, Cornelius Katona, Monica

McParland, & Lorraine Noble, 2004; McParland, Noble, Livingston, & McManus, 2003) . In addition, a favourably-perceived psychiatry experience was particularly influential for US medical students with a low initial interest in psychiatry (Manassis et al., 2006).

A systematic review of international literature by Lyons (2013, 2014) provided further robust evidence that clinical exposure alone is an inconsistent predictor of subsequent attitudes toward psychiatry as a career, both when comparative cross-sectional (2013) and pre/post (2014) studies were considered (as outlined in Table 1). Given the variation in effect of psychiatry placements on attitude toward psychiatry as a career, the content and qualities of the placement are likely to be important determinants of career choice.

**Table 1: Summary of cross-sectional studies measuring the difference in medical student attitudes toward psychiatry (stayed the same, increased, decreased) in pre-clinical and clinical training years (summarised from Lyons, 2013)**

Attitudes toward psychiatry career following a clinical placement (compared to pre-clinical sample):		
Stayed the same	Increased	Decreased
Lingeswaran (2010): India Aghukwa (2010): Nigeria Tharyan et al. (2001): India	Budd et al (2011): Aslam et al (2009):Pakistan Niaz et al. (2003): Pakistan	Calvert et al (1999): Scotland Al-Ansari et al. (2002): Arabian Gulf Cutler et al (2006): Gat et al (2007): Israel Ndetei et al. (2008): Kenya Maric et al. (2011): Serbia

Surveys from UK medical graduates over 35 years revealed that this effect of exposure content and quality in medical school and prevocational years may be particularly influential within the field of psychiatry:

*“[the] student experience of subject was rated as greatly influential by a higher percentage of aspiring psychiatrists than of those who chose general practice or other hospital specialties.” (Goldacre, Fazel, Smith, & Lambert, 2013)*

In addition, Farooq et al (2014) found in a cross-sectional survey across 20 countries that the quality of psychiatry training terms was an important factor in student career considerations. Specific aspects of the training that were viewed as positive or negative were not assessed. It is therefore necessary to better understand the qualities of these exposures to psychiatry that are most influential in the decision to pursue psychiatry as a career.



## METHODS

### NARRATIVE SYNTHESIS

Given the range of literature accessed (peer-reviewed, grey, editorials/opinion) and methodologies used (systematic review, cross-sectional, pre/post, qualitative), a traditional systematic review would not be appropriate. When complex sets of data from varying source types and analysis frameworks need to be synthesized, an appropriate method is a narrative synthesis (see Mays et al., 2005; Greenhalgh et al., 2005, for further explanation of process). Narrative synthesis requires a considered and descriptive exploration of the themes identified by both qualitative and quantitative results, systematic reviews by others, and grey literature, as well as opinion and editorial pieces, to inform a set of research questions.

### SEARCH STRATEGY

In line with a narrative synthesis, an iterative process of literature search, review, and synthesis was employed. As literature were reviewed, emergent themes were identified, and further search undertaken.

---

### ELIGIBILITY: INCLUSION/EXCLUSION CRITERIA

1. The review sought to identify papers that measured or discussed the views, opinions, perceptions or ratings of trainee experience of a psychiatry placement. Although many studies claim to measure trainee satisfaction, outcome measures usually capture overall satisfaction with the experience as a whole as opposed to evaluating specific aspects of the experience individually. Overall satisfaction with an experience does little to elucidate the qualities that are most favourably considered by trainees, which is the objective of this review. For that reason, papers which only reported on overall satisfaction, without mention to specific aspects within the experience, were excluded.
2. Papers of all kinds (pre/post, cross-sectional, reviews, qualitative, commentary, letter to editor, conference proceedings) were considered for the review, so long as they met the above criteria. Peer-review was not a requirement.
3. Papers had to report data (quantitative or qualitative) from the trainees themselves. (In other words, papers where the authors, course coordinators, supervisor, or patients describe their impression of trainee experiences were excluded.
4. Papers were included if published in English language.
5. Given cultural and structural differences in medical curricula and student populations worldwide, literature were scanned for country of training. Training in countries classified by the World Health Organisation as European, American or Western Pacific were included. Training in Eastern Mediterranean, South East Asia and African nations were excluded.
6. In order to capture findings relevant to the medical training systems and junior doctors of 2014, literature published earlier than 2000 were excluded. Systematic reviews were excluded only if published earlier than 1995<sup>1</sup>
7. Much of the medical student/ junior doctor literature are concerned with predictive characteristics of the trainees/doctors themselves (e.g., who is most likely to specialise in psychiatry?). As the current review is concerned with training program factors, literature exclusively concerned with trainee/doctor factors were excluded.
8. Literature reporting on medical students and pre-vocational doctors were included so long as they described clinical psychiatry experiences. In addition, literature about doctors undertaking vocational

---

<sup>1</sup> The rationale being that factors identified through such methodological rigour are likely be more robust, therefore possibly more enduring

training in psychiatry, although initially intended to be excluded, were included in the review and described in a separate section of the report (section 3) as supplementary evidence.

---

## SEARCH TERMS AND LOCATIONS

Ovid Medline, EBM Reviews, PREMEDLINE, GlobalHealth and PsycINFO electronic databases were searched using the following title search terms: *psychiatry* AND (*attachment* OR *term* OR *clerkship* OR *rotation* OR *post* OR *placement* OR *training*) AND (*students* OR *trainees* OR *junior doctors*). The search was limited to English language publication only, and published no earlier than 2000. From this search, 47 papers were retrieved.

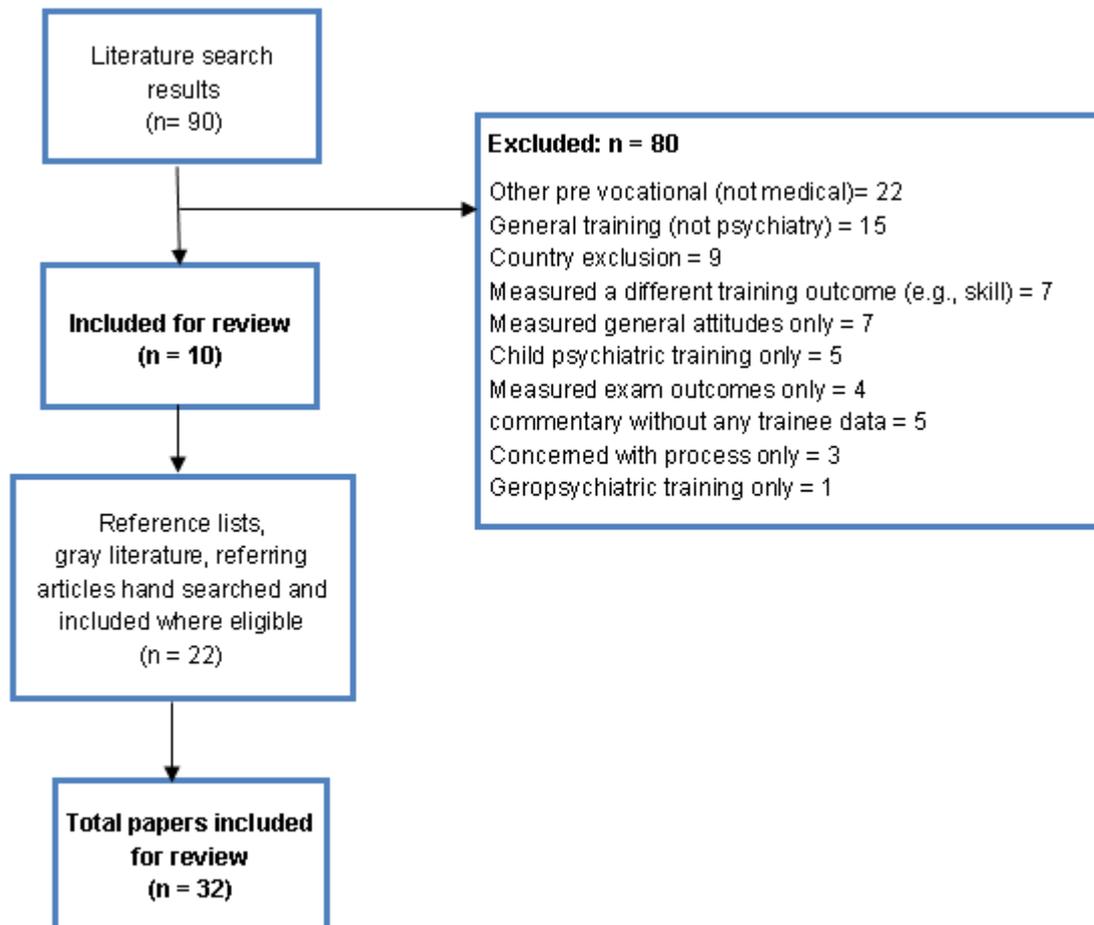
To ensure that literature describing the Australian prevocational experience, in particular, were captured, an additional search of Ovid Medline, EBM Reviews, PREMEDLINE, GlobalHealth and PsycINFO was undertaken with the title search term *prevocational* OR *pre-vocational* OR *pre vocational*. From this search, 43 papers were retrieved.

All papers retrieved (n = 90) were reviewed for relevancy and eligibility. 80 papers were excluded (see reasons in flowchart on page 8), and 10 papers were considered eligible and relevant to the current review.

Reference lists of all 10 papers were hand-searched, as well as referencing papers and their reference lists. Further search was also undertaken for country-specific terms, such as *psychiatry* AND (*foundation doctors* OR *junior doctors*). Grey literature were searched, using the same terms, through online repositories ResearchGate and Academia.net, as well as a search of Google Scholar. Additional literature was retrieved through a process of snowballing (hand-searching reference lists and associated referencing articles). From these additional search methods, a further 23 papers were eligible for inclusion in the review, bringing the total number of papers to 33. Two of these papers (Dawes, Vella, & Pai, 2012; Pai, Vella, & Dawes, 2012) presented duplicate data in the form of two separate conference presentations and, for this reason, were considered together as one paper.

Therefore, 32 papers were included in the current review and synthesis of literature.

FLOWCHART



## REPORTING ON THE LITERATURE

### STAGE 1: DESCRIPTION

Most relevant to the current project were studies of Australian junior doctors (PGY 1, PGY 2). In addition, studies involving junior doctors within the UK foundation year structure (since 2005; FY 1, FY 2) were considered relevant and the most equivalent to the Australian system in the international literature. These literature are considered together in Section 2.

Given the paucity of relevant junior doctor (PGY1-2, FY1-2) studies available, the search was expanded to include Australian psychiatry experiences at other stages of training (medical students, psychiatry residents). These literature were only considered relevant when considering clinical experiences (rather than non-clinical) and are considered in Section 1 (medical student experiences) and Section 3 (vocational psychiatry trainees).

In addition, international literature of medical students (US, Canada, Europe) were reviewed as a supplement. Students in these systems are exposed to clinical training during the final two undergraduate years, and commence specialty/vocational training immediately post-graduation. For that reason, the outcomes of these studies are summarised in Section 1, together with Australian medical student experiences. International vocational experiences are described in Section 3.

### STAGE 2: SYNTHESIS

Emergent themes were identified and consideration given to the quality and rigour of design, methodology, and analysis for each article examined. Through synthesis of the evidence reviewed, recommendations were made for the content of survey questions.

## TERMINOLOGY USED IN THIS REPORT

Literature from many different countries and medical systems are reported in this review. As terminology differs from country to country, and to avoid confusion to the reader, one term for each set of conceptually-similar variants has been selected for use. Except where quoted by others, the following terminology are used:

**Medical student**<sup>2</sup> = Refers to students enrolled in a medical degree (graduate or postgraduate entry) but who have not yet graduated from the medical degree

**Junior doctor** = Refers to postgraduate doctors in prevocational training years in Australia (FY1, FY2; *prevocational trainees, junior doctors*) and/or the United Kingdom (FY1, FY2; *foundation doctors*)

**Registrar** = Refers to postgraduate doctors who have entered a vocational training programme in psychiatry.

**Clerkship** = Refers to any of the following terms used by different countries, medical systems and researchers / policy makers to describe a mandatory or elective time-bound clinical experience within psychiatry as part of medical training: clerkship, attachment, training term, post, rotation.

<sup>2</sup> For brevity, the term *student* is used interchangeably with *medical student*

## RESULTS OF LITERATURE REVIEW

The 32 papers comprised data on the experiences of medical students (n = 20), junior doctors (n = 4) or vocational registrars (n = 8). Experiences of medical school exposure to psychiatry from Australia (n = 6), UK (n = 11), North America (n = 8), and Europe (n = 3) were included.

### SECTION ONE: CLINICAL EXPERIENCES IN MEDICAL SCHOOL

This section includes literature about clinical exposure to psychiatry during medical school (i.e. clerkships). For countries other than Australia and the United Kingdom, these years encompass the time when a decision on vocational training is made.

Papers in each subsection are described in order of methodological rigour (highest to lowest).

#### AUSTRALIA

Lampe and colleagues (2010) reported on an 8-week clinical psychiatry clerkship at the Sydney Medical School Northern Clinical Campus (SMS-NCC). Students (n = 82, response rate = 93%) were retrospectively surveyed to determine the teaching activities most valued by students during the clerkship. The most highly-rated aspect of training was face-to-face teaching (i.e. tutorials). The SMS-NCC employed two academic psychiatrists to provide weekly 'bedside' tutorials with an emphasis on building clinical skills in small groups of 2-4 students. This particular format of tutorial was most highly-rated by students (85.5% rated extremely helpful), followed by tutorials run by others (psychiatrist, 63.2%; registrar, 43.4%). This difference between tutorials and all other learning activities was statistically significant. Learning activities most commonly rated as a little or not at all helpful were: workshops and skills sessions (35.5%), web-based resources (32.9%) and recommended texts (28.9%). Lampe and colleagues (2010) concluded that clinically-oriented tutorials are perceived as significantly more valuable than other teaching activities, in particular tutorials provided weekly by academic psychiatrists in small groups where clinical reasoning skills are emphasised in practice. Direct observation and feedback to students during these tutorials was likely to have also been a factor:

*"These findings make a strong argument for the allocation of resources preferentially to clinical teaching that incorporates the valued attributes of the tutorials provided by the academic psychiatrists in this study. Exactly what the core attributes are requires further elucidation, but possibilities include the mentoring aspect of the relationship, the amount of time spent with a knowledgeable and enthusiastic clinician, and the accuracy and usefulness of feedback based on direct observation."* (Lampe, Coulston, Walter, & Malhi, 2010)

Pai, Vella and Dawes (2012; also Dawes, Vella, Pai, 2012) surveyed University of Wollongong medical students (n = 73, 92% response rate) about the *experience* of their first mandatory hospital-based psychiatry rotation. Immediately following the rotation, students were asked to complete a qualitative survey probing positive and negative aspects of the rotation. The two most predominant themes to emerge were: 1) positive staff qualities (approachable, supportive, enthusiastic, responsive, provided feedback to students), and 2) breadth of experience (variety of presentations, positive treatment outcomes, exposure to community care, opportunities to practice skill sets). In addition, students described a variety of elective exposures as positive training experiences (clozapine clinic, electroconvulsive therapy, community mental health, mental health tribunal, psychiatric ICU, drug and alcohol services).

Couper and colleagues (2005) reported on an intervention to enhance the communication skills and cross-cultural awareness of medical students undertaking a psychiatry rotation through the University of Melbourne. During the first week of their 9-week psychiatry rotation, 5<sup>th</sup>-year medical students took part in several group

sessions aimed at modelling and providing opportunities to practice clinical communication skills. One year later, students were asked to complete a retrospective survey of their reactions to the intervention. The response rate was low (33%, n = 88). Of those who responded:

- 80% reported the intervention as helpful/very helpful for addressing challenging clinical situations
- 64% reported increased communication skills following the intervention
- 52% reported the intervention as helpful/very helpful for patient interviewing strategies
- 48% indicated that the cross-cultural discussion during the intervention was helpful/very helpful

---

## UNITED KINGDOM

In a prospective study, McParland and colleagues (2003) surveyed 4<sup>th</sup>-year medical students (n = 379, 84% response rate) before and after an 8-week psychiatry clerkship. Changes in attitude and intention-to-specialise were predicted by specific experiences during the clerkship. These predictive factors were:

- Encouragement from consultants
- Observation of patients responding positively to treatment
- Direct involvement in patient care

In addition, these improvements in attitude and career intention were not mediated by pre-clerkship attitudes or intentions. The authors (McParland et al., 2003) concluded that:

*“The study provided evidence to reject the possibility that students who are most positive at the start of the attachment are those who elicit more favourable teaching experiences during the attachment. This lends weight to the argument that it is genuinely students’ experiences on the attachment that determine whether and how their attitudes and intentions change.” (pg. 452)*

Maidment and colleagues (2004) measured attitudes toward pursuing psychiatry as a career from 234 junior doctors in the UK, as a follow-up to measures obtained from the same sample before and after an undergraduate psychiatry clerkship. Findings suggested that encouragement during psychiatry clerkships during medical school from senior doctors (consultants, specialist registrars) increased the number of students who wanted to pursue psychiatry, and this effect continued after graduation (junior doctors). In addition, they (Maidment et al., 2004) found no effect of a problem-based curriculum (vs. traditional psychiatric curriculum) on the attitudes of medical students (n = 234) toward pursuing psychiatry as a career.

Budd and colleagues (2011) surveyed Year 4 medical students (n = 275, three sites) who had completed a clinical placement in psychiatry. The following survey questions were significantly related to choosing psychiatry as a top 3 career choice:

- *I had enough opportunities to practice psychiatry:* 85% vs 58% strongly agreed/agreed
- *I had enough opportunities to get feedback on my psychiatric skills:* 77% vs 55% strongly agreed/agreed

Qualitative data from a subset of doctors surveyed from 1974 -2009 about their medical school experiences suggested that the perception of psychiatry as not sufficiently informed by the medical model may ‘turn off’ students who initially intended to specialise (Goldacre et al., 2013).

Yakeley and colleagues (2004) conducted a ten year retrospective survey of medical students (n = 77, RR = 47%) who participated in a UK psychotherapy program, where students have the opportunity to provide psychodynamic therapy under close supervision from staff. Of students who had not previously considered psychiatry as a career, the psychotherapy program significantly increased the likelihood of vocational training in psychiatry (14%) as compared to control students (2%).

Archdall and colleagues (2013) interviewed 15 fourth-year medical students about their experience of a third-year psychiatry clerkship. Participants described favourable experiences as including consultants who were inspiring, enthusiastic and eager to teach, motivated, and proactive/engaged (“regularly following up and

taking student to more places"). Negative experiences included teachers who were derogatory to other disciplines/professionals. Preparedness was also described as an important factor; the unique aspects of psychiatric patient care (i.e. treatment outcomes) were described similarly by all participants, yet were experienced differently. Students who felt unprepared and/or uncertain about patient management reported negatively on patient care. Students who viewed patient care challenges as a 'refreshing', a privilege, and an opportunity to 'think in a different way', reported positive experiences. In addition, Archdall and colleagues (2013) concluded that negative narratives from UK students who had previously completed a psychiatry clerkship influenced current student experience.

Cheema and colleagues (2011) surveyed medical students who had completed a psychiatry clerkship<sup>3</sup> in Edinburgh. Factors identified by students as likely to increase popularity of psychiatry as a specialty included more medical training and improvements to the quality of teaching and placements, although the specifics of how quality could be improved were not examined. Students preferred methods of teaching were interactive in nature (case-based discussions, informal teaching sessions during ward rounds and clinics).

---

## INTERNATIONAL REVIEWS

As part of the World Psychiatric Association (WPA) Action Plan 2008-2011, a Task Force reviewed literature about the stigmatisation of psychiatry across many levels of society (general public, policy makers, health professionals, medical students). The outcome of this review was a set of recommendations on ways to combat the stigmatisation of psychiatrists and psychiatry (Sartorius et al., 2010). The recommendations for addressing stigmatisation at the level of the medical student are of interest to the current review, as combating stigmatisation during medical training is likely to improve student experience and perception of psychiatry as a career. Details of the relevant recommendations from Sartorius and colleagues (2010) are summarised:

- *Patient exposure:* Increased contact with patients who have been treated and recovered from their psychiatric illness, as well as exposure to successful community care. This recommendation was based on the finding that awareness of the therapeutic potential of psychiatric intervention can improve student attitudes toward psychiatry. An additional recommendation was the increased involvement of 'family members as teachers', providing students with information about routine community management of psychiatric illness.
- *Role models:* Negative narratives about psychiatry as a discipline and psychiatrists by other medical teachers need to be counter-balanced through the promotion of more positive role models
- *Education components:* Better teaching integration with behavioural sciences and neurosciences as a means of addressing stigma in psychiatry training, as well as intensified education around skills for dealing with mental illness.

Lyons (2014) systematically reviewed 26 studies of pre/post design across 19 countries that measured the impact of clerkship experiences on attitudes toward psychiatry. They concluded that aspects of patient contact during clerkship influence subsequent attitudes toward psychiatry as a career. More specifically, difficult and intimidating patient behavior during clerkship may have a negative influence. Conversely, witnessing patients recover and the positive outcomes of psychiatric treatment were associated with positive views of psychiatry post-clerkship.

Eagles and colleagues (2007) reviewed literature about the impact of psychiatry experience on medical students. Recommendations of the review for improving the effect of psychiatry clerkships included:

- Offering encouragement to students with an aptitude for psychiatry

---

<sup>3</sup> Sample size not available

- Exposing students to positive patient outcomes
- Emphasise strong scientific evidence-base for psychiatric treatment
- Educate students about lifestyle benefits of a psychiatry career

A systematic review of international literature by Seed and colleagues (2010) identified the following medical school factors as likely to improve recruitment to psychiatry: availability of psychology, sociology, and special-studies modules / electives; length of clinical placement; exposure to motivated patients and effective treatment; quality of teaching and good role models; and conversely negative attitudes from other specialties.

A review by Sierles and Taylor (1995) of the US system revealed qualities of the psychiatry clerkship that were most influential to choosing psychiatry as a specialty from 1973 -1993. Broadly, these factors may be grouped as follows:

- quality of student's role (active participation in patient care, well-defined student role),
- quality of workload (variety of clinical experiences, minimal exposure to administrative meetings, busy workday with minimal down time, experiencing treatment as effective), and
- quality of senior staff (enthusiastic supervision, senior faculty involvement, residents who enjoy their work)

---

## TRANSNATIONAL STUDIES

Farooq and colleagues (2014) surveyed final-year medical students (n = 2198) across 20 countries to determine factors of their medical training associated with plans to pursue psychiatry as a specialty. The length and setting of clerkship did not have an effect on specialty decision, however several clinical exposure factors did increase the likelihood of considering psychiatry as a career. Students were more likely to consider a career in psychiatry when exposed to acutely unwell patients and allocated greater levels of clinical responsibility (in particular, risk assessment and therapy provision). Students who were exposed to didactic teaching (lectures, tutorials) and taught psychology (compared to other subjects) were less likely to consider psychiatry as a career. Although not significant, there was a trend toward simulation teaching (p = 0.07) and increased likelihood of intention to specialise.

---

## NORTH AMERICA & EUROPE

Clardy and colleagues (2000) reported on the experience of 3<sup>rd</sup>-year medical students (n = 658, across 4 locations) who completed a 6-week psychiatry clerkship. Surveyed about their experience retrospectively, students rotating through outpatient settings reported significantly greater interest in psychiatry as a career than those rotating through the emergency room, a children's hospital, or inpatient or consultation/liaison setting. Although the outpatient setting significantly increased intention to specialise, it was not significantly related to actual recruitment.

Meresh (2014) described the implementation of a case-based curriculum in consultation-liaison psychiatry during third-year clerkship at an Illinois centre in the US. The curriculum included mandatory case presentations by each student (case details, relevant literature search), as well as optional Grand Rounds and scientific publications. Their retrospective analysis of data over five years suggest that students of the case-based educational method were more likely to select psychiatry as a career (n= 7/122, 5.7%) as compared to students of other psychiatry rotations sites (n = 7/576, 1.2%).

In Europe, data collected as part of the International Study of Student Career Choice in Psychiatry (ISoSCCiP) have been published in several countries. The consensus between country-specific findings appears to be that an increased degree of responsibility during psychiatry rotations is closely associated with positive evaluations of the rotation. More specifically, in Croatia, final-year medical students (6<sup>th</sup> year) who felt more involved in

history-taking and case discussions evaluated their training program higher overall, as compared to students who felt they were given little or no responsibility during placement (Kuzman et al., 2013). Similarly, in France, students who were asked more frequently about their opinion on patients (as opposed to those who had no responsibility) were more likely to consider psychiatry as a career (45% vs 25%) (Andlauer et al., 2012).

## SECTION TWO: JUNIOR DOCTOR (PREVOCATIONAL TRAINING) EXPERIENCES

### AUSTRALIA PREVOCATIONAL TRAINING: PGY1 AND PGY2

The current review revealed a paucity of literature concerning the experiences of psychiatry by junior doctors in Australia.

Neate and colleagues (2008) described the perceived barriers to continuing medical education (CME) for prevocational doctors (PGY1, PGY2 and IMGs) across various rotation types in VIC. Only 2% of junior doctors perceived CME opportunities as limited or inadequate during a psychiatry rotation, as compared to surgery (34%), medicine (22%) and emergency (19%) rotations. These findings suggest that psychiatry is performing well at providing adequate CME opportunities.

Burke (2013) described a prevocational psychiatry program at St Vincent's Hospital, Sydney. No data were presented to evidence claims made by the authors that specific aspects of the program were more highly-rated by junior doctors, therefore the paper was excluded from review.

In addition, commentary about the Adelaide Prevocational Psychiatry Programme (TAPPP) was excluded due to lack of junior doctor data (Suetani & Alexander, 2013).

### THE UK FOUNDATION PROGRAMME: FY1 AND FY2

Boyle and colleagues (2009) described one psychiatry post where, in 2006, all three foundation doctors subsequently decided to undertake specialty training in psychiatry. None had expressed a definite preference for psychiatry prior to the post. From interviews with the doctors about their experience, characteristics of the post that junior doctors reported as most valuable can be grouped as follows:

- Support and advice provided by the consultants: one-to-one relationship with an educational supervisor; weekly 1-hour educational supervision; robust feedback and formative learning associated with workplace assessments; feeling well-supported by supervisors through difficult experiences, including challenges related to motherhood and work-life balance.
- Exposure to multiple clinical areas within psychiatry: 'Tasters' were arranged for the junior doctors in forensic psychiatry, general adult psychiatry (including the crisis resolution team), and visits to the local therapeutic community.
- Patient care: A sense of teamwork and holistic patient care; seeing patients responding positively to treatment; increasing direct involvement in patient care as the post progressed.

Welch and colleagues (2011) published qualitative data from focus groups involving junior doctors who were currently undertaking psychiatry clerkships at the largest foundation school in the UK. Negative aspects of their clerkship included:

- Insufficient supervision/guidance by senior staff during risk assessments and patient handover
- Placements where the roles and responsibilities of self and team were not clearly defined on induction to the placement

In addition, negative factors related to community clerkships were raised (e.g., isolation from peers, multiprofessional team structures), however these are less relevant to the Australian prevocational system.

Goldacre (2013) compared career-choice factors of intending psychiatrists with those of doctors intending to choose other specialities. A retrospective survey of all newly-qualified doctors between 1974 – 2009 (n = 33,974) revealed the following findings relevant to the current review:

- The *quality of student experiences* influenced doctors intending to specialise in psychiatry more so than doctors intending to specialise in other disciplines, however specific aspects of quality were not assessed.
- *Hours/working conditions* was rated as influential to intention-to-specialise by a higher percentage of doctors choosing psychiatry than those who chose other specialities. In addition, women who chose psychiatry rated *hours/working conditions* as more influential on their career choice than did men. It is not clear if perceptions of hours/working conditions were formed from personal experience of the subject or through discussion with others (e.g., general perceptions).

Goldacre (2013) concluded that: “*student experience of subject’ and ‘hours/working conditions’ were rated as having a great deal of influence on psychiatry choice as a career by over half of respondents*”



## SECTION THREE: SUPPLEMENTARY LITERATURE

### VOCATIONAL TRAINING EXPERIENCES

Doctors in the RANZCP training programme have already decided to pursue psychiatry as a career. Their experiences of training, however, may offer clues as to what is considered a good/satisfactory training term in psychiatry, therefore research with RANZCP and international vocational registrars is briefly summarised below.

#### RANZCP TRAINING

Fletcher and colleagues (2014) surveyed applicants for RANZCP Fellowship (n = 1010) for 1) *preparedness for practice*, as well as 2) *perceptions of the training programme, supervision, training specialties and course content*. Overall satisfaction with the program was high, (70% were satisfied or very satisfied; 84% felt prepared to practice), however concern was raised about the lack of psychotherapy training (see also O'Connor et al., 2009) and research training.

#### UNITED KINGDOM

Green (2012) provides personal commentary on his experience of psychotherapy training as a psychiatry registrar in the United Kingdom. He describes a need for protected timeslots to conduct long-term psychotherapy with patients, thus providing an opportunity to build a therapeutic relationship, something Green considered as crucial to his overall training as a psychiatrist. In addition, longer-term psychotherapy training provided an opportunity for Green to practice clinical skills and witness patients across many stages of recovery. Weekly supervision was also mentioned as a positive aspect of the psychotherapy training component:

*“the psychotherapy long case [...] has greatly improved my understanding of effective communication skills, psychodynamic theory and the doctor-patient relationship. I have derived much from my weekly supervision sessions. I feel that, of all the membership eligibility requirements the college places on trainees, the psychotherapy long case is certainly one of the more beneficial”* (pg. 380)

#### NORTH AMERICA

Fang and colleagues (2007) reviewed the impact of patient suicide on psychiatric registrars. The literature suggests that patient suicide is common (53% of 1<sup>st</sup> year psychiatry registrars in Canada and the US, Ruskin et al., 2004) and a particularly difficult experience for psychiatry registrars, who experience clinical levels of stress ranging from 24% (Ruskin et al., 2004) to 52% (Yousaf, Hawthorne, & Sedgwick, 2002). Further, more than 1/5 registrars experiencing patient suicide met DSM-IV criteria for PTSD. These effects lasted up to 2 weeks post-suicide (Yousaf et al., 2002). Fang (2007) concluded that registrars experiencing patient suicide were not afforded any formal support or training in this matter, and that such supports could mitigate distress and improve registrar experiences.

Fung and colleagues (2014) surveyed US psychiatry registrars spanning year 1-4 about their *attitudes* and *readiness* for a neuroscience-based framework for understanding psychiatric disorders. Participants were from all 4 years of postgraduate residency training, as well as some fellowship registrars. 38% of registrars rated their neuroscience knowledge as less than adequate or inadequate; 39% rated quality of neuroscience education during current training programme as inadequate or less than adequate; 28% disagreed or strongly disagreed with the statement “I am comfortable discussing neuroscience findings with my patients”. Most importantly, 94% of registrars agreed (42%) or strongly agreed (52%) that more neuroscience education is

needed in psychiatric residency training, specifying emotion regulation and attention/cognition as particular areas of interest, and didactics and expert-led small groups as the most useful mode (and journal clubs and internet-based modules as least helpful). In addition, 91% agreed or strongly agreed that a greater emphasis on neuroscience would decrease stigmatization. For a review of clinical neuroscience curricula in psychiatry training programmes, see Coverdale and colleagues (2014).

In the USA, Calabrese and colleagues (2010) surveyed psychiatry registrars at 15 training programs in 2006–2007 (n = 249, 44% response rate). Respondents completed Likert-scale questionnaires evaluating attitudes toward current psychotherapy training and self-perceived competence in five modes of psychotherapy (brief, cognitive-behavioral, combined psychotherapy and psychopharmacology, psychodynamic, and supportive). More than 50% indicated *high-quality* psychotherapy training in their current program. Data suggested that psychotherapy was considered an important topic of training, with only 7% of registrars indicating too much psychotherapy training in their program. Just under 30% reported inadequate provision of time and resources by their programs. Registrars almost all perceived their own training directors as supportive of psychotherapy training, however almost one-third perceived other department leaders as unsupportive. Perceived self-competence did not differ markedly across modes of therapy (neutral to slightly positive) and, not surprisingly, increased with years of training.

Irwin and colleagues (2011) surveyed US psychiatry registrars (n = 98 across 17 programs, years 1-4) about attitudes toward training and experience of palliative care. Registrars indicated a strong preference for training in psychiatric aspects of palliative care (Irwin et al., 2011). Specifically, 97% of those surveyed agreed or strongly agreed that such training should be provided to psychiatry registrars, and 94% indicated a need for a formalized curriculum to learn about palliative care within psychiatry. The top 10 “extremely important” topics to learn about in palliative or hospice care, as listed by registrars, were (in rank order): 1) depression, 2) grief and bereavement, 3) communicating bad news, 4) delirium, 5) insomnia, 6) pain, 7) competence and capacity, 8) anxiety, 9) setting goals of care, and 10) adjustment disorders. In addition, Irwin et al (2011) surveyed psychiatry registrars (PGY1-4) before and after a formal clinical rotation in palliative/hospice care (n = 30). These registrars exhibited a significant increase in competence and knowledge, as well as a decreased concern about providing palliative care in the future, following the rotation.

---

## EUROPE

Pinto da Costa and colleagues (2013) described the experiences of psychiatry registrars in Portugal. Surveyed about their opinion of the training and any modifications they would recommend, registrars indicated strong support for the inclusion of psychotherapy training, as well as ‘easier access to investigational procedures’ during training.

---

## TARGETTING STIGMATISATION OF PSYCHIATRY THROUGH EDUCATIONAL EVENTS

Short educational events for medical students have been shown to address stigmatised perceptions of psychiatry. Although these are not clinical experiences, the content of such programs may be useful to consider when constructing survey questions.

For example, in 2008, The University of Western Australia implemented an innovative program, based on a Canadian concept, which “aimed to promote psychiatry as a career choice to medical students, to immerse them in the world of psychiatry, and introduce them to potential mentors” (The University of Western Australia Claassen Institute of Psychiatry for Medical Students, see Lyons et al 2009, 2010). One week in duration, medical students participate in interactive seminars (psychiatric subspecialties, neurosciences),

elective sessions, informal meetings with registrars and psychiatrists, and several social events. Early feedback suggested that the program is viewed positively by attendees (Lyons, Power, Bilyk, & Claassen, 2009) and students 'definitely considering' a career in psychiatry increased by 20% overall from before the event to immediately after (Lyons, Power, Bilyk, Lofchy, & Claassen, 2010). In Canada, recruitment to psychiatry has been significantly higher for students of the program (43% of attendees from 1994-2005; Andermann et al., 2010) as compared to the regular psychiatry program (see Lofchy et al., 1999 for details of content).

Short, non-clinical events have also been introduced in the UK, as part of the Royal College of Psychiatrists' recruitment campaign (see Royal College of Psychiatrists Recruitment Strategy 2011-2016 at [www.rcpsych.ac.uk](http://www.rcpsych.ac.uk)). Three days in length, these events purposefully targeted known negative influences on perceptions of psychiatry, and presented psychiatry as a rewarding, stimulating important and complex specialty to medical students with an interest in psychiatry. The events were taught by clinicians who were selected for not only their expertise, but for their enthusiasm and professionalism. Relationships between clinicians and students were actively fostered. Positive aspects of psychiatry as a career were highlighted including: privilege of the doctor-patient experience, recovery and therapeutic optimism, challenge related to complexity and uncertainty of case management, importance of the doctor's role. Clinical experience was not included as part of these events, however focus was placed on 'bringing to life' clinical material through case studies that "embodied the role of the psychiatrist in patient journeys" (an outline of course content is provided in Appendix A). Evaluation of one of these events found a significant increase in attitudes toward psychiatry and in the proportion of undergraduate medical student attendees (n = 19; 20% 1<sup>st</sup> year, 80% years 2-3) indicating that they probably or definitely intended to pursue a career in psychiatry (from 47% pre-event to 68% post-event) (Beattie, Lister, Khan, & Cornwall, 2013). These findings indicate that the content of this 3-day event was able to significantly shift attitudes and career intent, although it should be noted that attendees already held a comparatively high level of regard for the specialty (i.e., high rate of baseline career intent and attitude as compared to general medical student population). In addition to the high baseline interest in psychiatry, outcome data were all collected on the final day of the summer school event, therefore the robustness of this change effect remains unknown.

## SYNTHESIS AND RECOMMENDATIONS

Table 2 (pg. 22) and Table 3 (pg. 24) of this report provide a concise overview of factors identified from the three levels of reviewed evidence (systematic review, quantitative design<sup>4</sup>, qualitative design):

- **Table 2** outlines factors of training that were experienced or viewed as positive, i.e., experiencing these factors was considered enjoyable, useful, and/or to reflect psychiatry as a positive career.
- **Table 3** outlines factors of training that were experienced or viewed as negative, i.e., experiencing these factors negatively influenced a psychiatry clerkship experience.

To inform the creation of survey questions for NSW junior doctors (PGY 1, PGY 2) probing favourable and unfavourable aspects of psychiatry clerkship, these findings will now be descriptively synthesised and recommendations provided.

A large-scale survey of medical graduates in the UK supports the notion that experiences of psychiatry in prevocational years is influential in determining career choice; more so, in fact, for psychiatry than for other specialties (Goldacre et al., 2013). Findings of the current review provide some insight into the *specific aspects* of prevocational (and vocational) psychiatry experiences that are considered most influential and/or favourable by medical students. In addition, a recent review of the literature by Beattie and colleagues (2013) highlighted the stigmatisation of psychiatry as the main factor deterring medical students and junior doctors from pursuing a career in psychiatry. Specifically, stigmatisation included the perception that patients do not improve or get better, concerns about overidentifying with patients, a perceived lack of scientific basis, and the perceived low status of psychiatry within the profession. The authors argued that students and junior doctors fail to accurately perceive the entirety of the role of the psychiatrist. It therefore seems reasonable that prevocational terms in psychiatry which are able to address these negative perceptions will be rated more positively by junior doctors. But in what ways can the experience of a psychiatry clerkship affect or influence student/junior doctor perceptions of psychiatry?

Experiential learning and a sense of autonomy appear to play a particularly important role in facilitating favourable clerkship experiences. This included opportunities to practice clinical communication skills (Couper et al., 2005) mental state exams and history-taking (Pai et al., 2012), risk assessment (Farooq et al., 2014) and therapy (Farooq et al., 2014; Yakeley, 2004). In addition, increased experience with clinical skill sets are likely to address negative perceptions of psychiatry as lacking a strong evidence-base or connection to the medical model (Eagles et al., 2007; Goldacre et al., 2013; Cheema et al., 2011). Indeed, the WPA Task Force recommended better teaching integration with behavioural sciences and neurosciences (Sartorius et al., 2010) as a means of addressing stigma in psychiatry training, as well as intensified education around skills for dealing with mental illness.

### RECOMMENDATION:

The following factors have each been associated with more favourable psychiatry clerkship by all three research types considered in this review (systematic review, quantitative and qualitative studies):

- *A sense of autonomy (i.e., given responsibilities and opportunity to use clinical skills)*
- *Opportunity to provide therapy to patients*

In addition, the following factors have been suggested as important to the student experience of psychiatry by more than one paper in the review, and may be useful to include in a survey of NSW junior doctor experiences:

- *Emphasis on evidence-based, medical, and neuroscientific aspects of psychiatry*
- *Provision of training in psychotherapy skills*

<sup>4</sup> quantitative studies are further separated into pre/post and cross-sectional designs

Australian literature points toward high-quality clinical teaching as a key determinant of satisfactory psychiatry clerkship (Lampe et al., 2010; Pai et al., 2012; Dawes et al., 2012). Small, expert-led groups appear to be highly valued by Australian medical students. The appointment of academic psychiatrists to facilitate bedside tutorials (Lampe et al., 2010) was particularly well-received by students of the SMS-NCC. Students likely appreciated the enthusiasm and willingness of these staff to share their considerable knowledge and expertise, factors which were cited most predominantly by University of Wollongong students (Pai et al, 2012).

**RECOMMENDATION:**

The following factor has each been associated with more favourable psychiatry clerkships by all three research types considered in this review (systematic review, quantitative and qualitative studies).

- *Psychiatrists as mentors / role models*

The following factors have each been associated with favourable psychiatry clerkships by several systematic reviews and qualitative studies:

- *Inspirational senior staff (engaged, enthusiastic, approachable and willing to assist)*

- *Encouragement received from senior staff*

Additional factors suggested by both quantitative and qualitative data for consideration:

- *Regular follow-up and feedback from senior staff*

- *Weekly supervision sessions / access to regular case-based, expert-led tutorials*

The nature of patient exposure also emerged as an important aspect of the psychiatry experience, as reported across the Australian context (Pai et al., 2012), a prospective United Kingdom study (McParland et al., 2003) , several systematic reviews (Eagles et al., 2007; Sartorius et al., 2010; Sierles & Taylor, 1995), and a large transnational survey (Farooq et al., 2014). In addition, exposure to community-based psychiatric care, although optional, was reported as a highly valued part of many student clerkships at the University of Wollongong (Pai et al., 2012). Junior doctors in one UK post valued exposure to multiple clinical areas within psychiatry such as forensic psychiatry, general adult psychiatry (including the crisis resolution team), and visits to the local therapeutic community (Boyle et al., 2008).

**RECOMMENDATION:**

The following factor has each been associated with more favourable psychiatry clerkships by all three research types considered in this review, and will likely be useful to survey:

- *Opportunity to witness positive patient outcomes from psychiatric treatment or management*

Two additional factors have been suggested by at least one systematic review and one other research type (quantitative, qualitative) and may also be useful to survey:

- *Exposure to a variety of psychiatric patient presentations and treatments*

- *Exposure to successful community-based psychiatric care*

Eagles and colleagues (2007) concluded from their review of the literature that psychiatry is well-placed as a career which can maintain better work-life balance than other specialties, a view supported by data from two studies of junior doctor experiences (Boyle et al., 2009; Goldacre, 2013).

**RECOMMENDATION:**

The following factor has been associated with favourable psychiatry clerkships at least one systematic review and one qualitative study, and will therefore be a useful aspect of training to include in survey:

- *Witnessing psychiatrist work—life balance in action*

**Table 2:**  
**Clerkship factors received positively**

	Review	Quan: pre/post	Quan: cross-sec	Qual or other
<b>Patient Contact</b>				
Witness positive outcomes / patient recovery	Eagles et al (2007) Lyons (2014) Sartorius et al (2010) Sierles & Taylor (1995) Seed et al (2010)	McParland et al. (2003)		Pai, Dawes, Vella (2012) Boyle et al (2009) Green (2012)
Successful community care	Sartorius et al (2010)			Pai, Dawes, Vella (2012) Boyle et al (2009)
Variety in presentations / treatments	Sierles & Taylor (1995)			Pai, Dawes, Vella (2012) Boyle et al (2009)
Family members as 'teachers'	Sartorius et al (2010)			
Exposure to acutely unwell patients			Farooq (2014)	
<b>Curricula: training/education</b>				
Psychotherapy training			Calabrese et al (2010): considered important training topic Pinto da Costa (2013): considered useful	
Clinical communication skills training			Couper et al. (2005)	
Emphasise evidence-base / medical model / neuroscientific aspects	Eagles et al (2007) Sartorius et al (2010): neuroscience			
<b>Autonomy and clinical responsibility</b>				
A sense of autonomy (i.e., given responsibilities and opportunity to use clinical skills)	Sierles & Taylor (1995)	McParland et al. (2003): direct involvement in patient care	Kuzzman (2013): history taking & case mgmt. involvement Farooq (2014): esp. risk assessments Budd (2011): opportunity to <u>practice</u> psychiatry Andlauer (2012): asked for opinion on patients	Pai, Dawes, Vella (2012): allowed to practice clinical skills Boyle et al (2009): graded autonomy
Opportunity to provide therapy	Sierles & Taylor (1995)		Farooq (2014) Yakeley (2004): providing psychodynamic therapy under close supervision	Green (2012): longterm psychotherapy with clients

<b>Feedback from senior staff / supervision</b>				
Regular supervision/guidance			<b>Lampe et al. (2010):</b> weekly	<b>Boyle et al.(2009):</b> 1hr weekly <b>Green (2012):</b> weekly
Regular follow-up and feedback / responsive senior staff			Budd (2011): receiving regular feedback on psychiatric skills from senior staff	<b>Archdall (2013):</b> consultants who regularly follow-up <b>Pai, Dawes, Vella (2012):</b> responsive staff who provide feedback
Encouragement from senior staff	<b>Eagles et al. (2007)</b>	Maidment (2004) McParland et al (2003)		
<b>Teaching methods: clinical skills</b>				
Expert-led small groups			<b>Fung et al (2014):</b> small, clinically-oriented tutorials <b>Lampe et al (2010):</b> Bedside tutorials by academic psychiatrists	
Case-based teaching			Meresh (2014):case-based & Grand Rounds	<b>Cheema (2011):</b> cased-based & interactive
<b>Role definition (junior doctor)</b>				
well-defined role	Sierles & Taylor (1995)			
Felt supported by other staff in difficult situations				<b>Boyle et al (2009)</b>
<b>Staff as role models</b>				
Psychiatrists as mentors	Lyons (2013)		<b>Lampe et al (2010):</b> mentor relationships	<b>Boyle et al (2009):</b> mentorship, one to one relationship with senior mentors
Inspirational and enthusiastic senior staff	Sartorius et al (2010): positive role models Sierles & Taylor (1995): enthusiastic supervision & residents who enjoy what they do Seed et al (2010)			<b>Archdall (2013):</b> inspiring, enthusiastic <b>Pai, Dawes, Vella (2012):</b> enthusiastic, supportive, approachable
Witnessing psychiatrist work-life balance in action	<b>Eagles et al. (2007)</b> Goldacre (2013)			<b>Boyle et al (2009)</b>

**Bold text** = experienced positively /rated as a positive aspect of psychiatry clerkship

Regular text = when experienced, intention to specialise in psychiatry or attitudes toward a career in psychiatry increased

*Italic text* = studies of vocational trainees/psychiatry residents

Table 3: Clerkship factors received negatively	Review	Quan: cross-sec	Qual or other
<b>Patient factors</b>			
Difficult / intimidating patient behaviour	Lyons (2013)		
<b>Training / education factors</b>			
Lack of psychotherapy training		<i>Fletcher et al (2014)</i>	
Psychiatry's scientific/medical basis		<i>Fung et al (2014):</i> too little neuroscience	Goldacre (2013, subset): if clerkship provided perception that psychiatry was not under-pinned by strong medical model, this was a turn-off Cheema (2011): Too little medical training
Didactic teaching		Farooq et al. (2014)	
<b>Support from senior staff</b>			
Not enough supervision/guidance			<b>Welch (2011):</b> insufficient supervision / guidance, esp. during pt assessment and handovers
Patient suicide & lack of formal support systems	<i>Fang et al 2007</i>	<i>Yousaf et al. (2002)</i> <i>Ruskin et al. (2004)</i>	
<b>Role definition</b>			
Poorly-defined roles			<b>Welch et al (2011):</b> when roles & responsibilities of team members were not clearly defined on placement induction
<b>Other factors</b>			
Exposure to administration meetings	Sierles & Taylor (1995)		
Negative narratives about psychiatry	Seed et al. (2010): from staff of other specialities		<b>Archdall (2013):</b> from past students

## FUTURE RESEARCH DIRECTIONS

Several areas of further research have been suggested in the literature, however one theme emerged more consistently than others; the need to better understand *how and in what ways* the training experience influences student perceptions of psychiatry. The following quotes from the reviewed literature best illustrate this direction for future research:

*“A clearer understanding of course content and delivery techniques to determine the most effective way of teaching psychiatry, including a focus on the preclinical years, will be a step toward designing curricula that can more effectively improve attitudes while students are in medical school”* (Lyons, 2010, pg. 155)

*“future research needs to identify components of the clerkship that are rated positively in order to improve student attitudes and encourage a career in psychiatry”* (Lyons, 2014, pg 40)

*“It is important to tailor programmes to have an impact on areas where we are aware there are frequently negative misconceptions among students, and that we know are important in discouraging them from pursuing psychiatry.”* (pg 370, Beattie et al 2013)

*“Future research on assessment methods that are sustainable in the clinical environment and supported by supervisors and trainees would be valuable. Changes in the workplace to facilitate adequate time for feedback and assessment may be required, and supervisors may need training in assessment methods”* (Bingham & Crampton, 2011, p. 412)

*“While it is clear that the teaching sessions with the academic psychiatrists were perceived as the most valuable learning activity, the questionnaire does not allow conclusions to be drawn about the specific attributes of the sessions which contributed to the students’ perceptions. This represents an important future research question. Determining the essential components of the activity that make it valuable to students may inform future resource allocation and cost-effectiveness.”* (Lampe and colleagues, 2010)

## REFERENCE LIST

- Andermann, L. F., De Souza, C., & Lofchy, J. (2010). The Psychiatry Institute for Medical Students: a decade of success. *Academic psychiatry : the journal of the American Association of Directors of Psychiatric Residency Training and the Association for Academic Psychiatry*, *34*(2), 150-153. doi: 10.1176/appi.ap.34.2.150
- Andlauer, O., Guicherd, W., Haffen, E., Sechter, D., Bonin, B., Seed, K., . . . Howard, R. (2012). Factors influencing French medical students towards a career in psychiatry. *Psychiatria Danubina*, *24 Suppl 1*, S185-190.
- Archdall, C., Atapattu, T., & Anderson, E. (2013). Qualitative study of medical students' experiences of a psychiatric attachment. *The Psychiatrist*, *37*(1), 21-24. doi: 10.1192/pb.bp.112.039065
- Beattie, S., Lister, C., Khan, J. M., & Cornwall, P. L. (2013). Effectiveness of a summer school in influencing medical students' attitudes towards psychiatry. *The Psychiatrist*, *37*(11), 367-371. doi: 10.1192/pb.bp.113.043513
- Bingham, C. M., & Crampton, R. (2011). A review of prevocational medical trainee assessment in New South Wales. *The Medical journal of Australia*, *195*(7), 410-412.
- Boyle, A. M., Chaloner, D. A., Millward, T., Rao, V., & Messer, C. (2009). Recruitment from foundation year 2 posts into specialty training: a potential success story? *Psychiatric Bulletin*, *33*(8), 306-308. doi: 10.1192/pb.bp.108.020594
- Budd, S., Kelley, R., Day, R., Variend, H., & Dogra, N. (2011). Student attitudes to psychiatry and their clinical placements. *Medical Teacher*, *33*(11), e586-e592. doi: doi:10.3109/0142159X.2011.610836
- Burke, D., Tietze, T., Chiem, L., Boulton, M., McGeorge, P., & Andrews, G. (2013). What makes a hospital-based psychiatry training program successful? The experience of St Vincent's Hospital, Sydney. *Australasian Psychiatry*, *21*(1), 51-55. doi: 10.1177/1039856212466157
- Calabrese, C., Sciolla, A., Zisook, S., Bitner, R., Tuttle, J., & Dunn, L. (2010). Psychiatric Residents' Views of Quality of Psychotherapy Training and Psychotherapy Competencies: A Multisite Survey. *Academic Psychiatry*, *34*(1), 13-20. doi: 10.1176/appi.ap.34.1.13
- Cheema, F., Leuvenink, J., Ee, C., Macklin, J., & Graham, J. (2011). P03-537 - How medical student placements at a psychiatry hospital can be utilised to make psychiatry a popular career choice.
- Clardy, J., Thrush, C., Guttenberger, V., Goodrich, M., & Burton, R. (2000). The junior psychiatric clerkship and medical students' interest in psychiatry. *Academic Psychiatry*, *24*, 6.
- Couper, J., Hawthorne, L., Hawthorne, G., Tan, E.-S., & Roberts, A. (2005). Communication Skills and Undergraduate Psychiatry: A Description of an Innovative Approach to Prepare Australian Medical Students for Their Clinical Psychiatry Attachment. *Academic Psychiatry*, *29*(3), 297-300. doi: 10.1176/appi.ap.29.3.297
- Coverdale, J., Balon, R., Beresin, E., Louie, A., Tait, G., Goldsmith, M., & Roberts, L. (2014). Teaching Clinical Neuroscience to Psychiatry Residents: Model Curricula. *Academic Psychiatry*, *38*(2), 111-115. doi: 10.1007/s40596-014-0045-7
- Dawes, K., Vella, S. C., & Pai, N. B. (2012). *Listening to the learners: medical student perspectives of their first psychiatry rotation*. Paper presented at the AMPEC 2012: 9th Asia Pacific Medical Education Conference, Singapore.
- Eagles, J., Wilson, S., Murdoch, J., & Brown, T. (2007). What impact do undergraduate experiences have upon recruitment into psychiatry? *Psychiatric Bulletin*, *31*(2), 70 - 72.

- Fang, F., Kemp, J., Jawandha, A., Juros, J., Long, L., Nanayakkara, S., . . . Anzia, J. (2007). Encountering Patient Suicide: A Resident's Experience. *Academic Psychiatry, 31*(5), 340-344. doi: 10.1176/appi.ap.31.5.340
- Farooq, K., Lydall, G., Malik, A., Ndeti, D., Group, I., & Bhugra, D. (2014). Why medical students choose psychiatry - a 20 country cross-sectional survey. *BMC Medical Education, 14*(1), 12.
- Fletcher, S., MacDonald, J., & Halley, E. (2014). Reflections on training in psychiatry. *Australasian Psychiatry*. doi: 10.1177/1039856214522530
- Fung, L., Akil, M., Widge, A., Roberts, L., & Etkin, A. (2014). Attitudes Toward Neuroscience Education Among Psychiatry Residents and Fellows. *Academic Psychiatry, 38*(2), 127-134. doi: 10.1007/s40596-014-0034-x
- Goldacre, M. J., Fazel, S., Smith, F., & Lambert, T. (2013). Choice and rejection of psychiatry as a career: surveys of UK medical graduates from 1974 to 2009. *The British Journal of Psychiatry, 202*(3), 228-234. doi: 10.1192/bjp.bp.112.111153
- Green, J. (2012). The Training Value of the Psychodynamic Psychotherapy Long Case: A Psychiatry Trainee's Perspective. *British Journal of Psychotherapy, 28*(3), 374-381. doi: 10.1111/j.1752-0118.2012.01279.x
- Greenhalgh, T., Robert, G., Macfarlane, F., Bate, P., Kyriakidou, O., & Peacock, R. (2005). Storylines of research in diffusion of innovation: a meta-narrative approach to systematic review. *Social Science & Medicine, 61*(2), 417-430. doi: <http://dx.doi.org/10.1016/j.socscimed.2004.12.001>
- Irwin, S. A., Montross, L. P., Bhat, R. G., Nelesen, R. A., & von Gunten, C. F. (2011). Psychiatry Resident Education in Palliative Care: Opportunities, Desired Training, and Outcomes of a Targeted Educational Intervention. *Psychosomatics, 52*(6), 530-536. doi: <http://dx.doi.org/10.1016/j.psym.2011.08.002>
- Kuzman, M. R., Lovrec, P., Smoljan, M., Kuzman, T., Farooq, K., Lydall, G., . . . Bhugra, D. (2013). Experience of psychiatry teaching at medical school influences Croatian medical students' attitudes towards choosing psychiatry as a career. *Psychiatria Danubina, 25*(2), 188-193.
- Lampe, L., Coulston, C., Walter, G., & Malhi, G. (2010). Familiarity breeds respect: attitudes of medical students towards psychiatry following a clinical attachment. *Australas Psychiatry, 18*(4), 348 - 353.
- Lofchy, J., Brunet, A., & Silver, I. (1999). The psychiatry institute for medical students: a novel recruitment strategy. *Academic Psychiatry, 23*, 6.
- Lyons, Z. (2013). Attitudes of Medical Students Toward Psychiatry and Psychiatry as a Career: A Systematic Review. *Academic Psychiatry, 37*(3), 150-157. doi: 10.1176/appi.ap.11110204
- Lyons, Z. (2014). Impact of the Psychiatry Clerkship on Medical Student Attitudes Towards Psychiatry and to Psychiatry as a Career. *Academic Psychiatry, 38*(1), 35-42. doi: 10.1007/s40596-013-0017-3
- Lyons, Z., Power, B., Bilyk, N., & Claassen, J. (2009). The University of Western Australia Institute of Psychiatry for Medical Students: an Australian first. *Australasian Psychiatry, 17*(4), 306-310. doi: doi:10.1080/10398560902964602
- Lyons, Z., Power, B., Bilyk, N., Lofchy, J., & Claassen, J. (2010). Evaluation of the Claassen Institute of Psychiatry for Medical Students. *Australasian Psychiatry, 18*(1), 12-16. doi: doi:10.3109/10398560903414136
- Maidment, R., Livingston, G., Katona, C., McParland, M., & Noble, L. (2004). Change in attitudes to psychiatry and intention to pursue psychiatry as a career in newly qualified doctors: a follow-up of two cohorts of medical students. *Medical Teacher, 26*(6), 565-569. doi: doi:10.1080/01421590410001711562
- Maidment, R., Livingston, G., Katona, C., McParland, M., & Noble, L. (2004). Change in attitudes to psychiatry and intention to pursue psychiatry as a career in newly qualified doctors: a follow-up of two cohorts of medical students. *Med Teach, 26*(6), 565 - 569.

- Manassis, K., Katz, M., Lofchy, J., & Wiesenthal, S. (2006). Choosing a Career in Psychiatry: Influential Factors Within a Medical School Program. *Academic Psychiatry, 30*(4), 325-329. doi: 10.1176/appi.ap.30.4.325
- Mays, N., Pope, C., & Popay, J. (2005). Systematically reviewing qualitative and quantitative evidence to inform management and policy-making in the health field. *Journal of Health Services Research & Policy, 10*, S6-S20.
- McParland, M., Noble, L. M., Livingston, G., & McManus, C. (2003). The effect of a psychiatric attachment on students' attitudes to and intention to pursue psychiatry as a career. *Medical Education, 37*(5), 447-454. doi: 10.1046/j.1365-2923.2003.01491.x
- Meresh, E., Rao, M., Schilling, D., Niedzwiecki, M., & Halaris, A. (2014). Medical Students' Interest in Pursuing Psychiatry Residency: A 5-Year Analysis of a Consultation Psychiatry Clerkship Educational Module. *Academic Psychiatry, 38*(1), 104-105. doi: 10.1007/s40596-013-0013-7
- Neate, S. L., Dent, A. W., Weiland, T. J., Farish, S., Jolly, B., & Crotty, B. C. (2008). Barriers to continuing medical education in Australian prevocational doctors. *Australian Health Review, 32*(2), 292-300. doi: <http://dx.doi.org/10.1071/AH080292>
- O'Connor, D., Schweizer, Y., & Spratt, C. (2009). Expanding psychiatry training: Australian specialists' and trainees' perceived gaps in experiences and settings. *Australasian Psychiatry, 17*(6), 506-508. doi: 10.1080/10398560903284950
- Pai, N., Vella, S. C., & Dawes, K. (2012). A qualitative analysis of medical students views of their first psychiatry rotation. *Online Journal of Health and Allied Sciences, 11*(2), 1-5.
- Pinto da Costa, M., Guerra, C., Malta, R., Moura, M., Carvalho, S., & Mendonca, D. (2013). Psychiatry training towards a global future: trainees' perspective in Portugal. *Acta Med Port, 26*(4), 357-360.
- Ruskin, R., Sakinofsky, I., Bagby, R. M., Dickens, S., & Sousa, G. (2004). Impact of Patient Suicide on Psychiatrists and Psychiatric Trainees. *Academic Psychiatry, 28*(2), 104-110. doi: 10.1176/appi.ap.28.2.104
- Sartorius, N., Gaebel, W., Cleveland, H.-R., Stuart, H., Akiyama, T., Arboleda-Flórez, J., . . . Tasman, A. (2010). WPA guidance on how to combat stigmatization of psychiatry and psychiatrists. *World Psychiatry, 9*(3), 131-144. doi: 10.1002/j.2051-5545.2010.tb00296.x
- Seed, K., Lydall, G., Malik, A., Howard, R., & Bhugra, D. (2010). P02-118 - Student career choice in psychiatry - Phase 1 - a systematic review. *European Psychiatry, 25, Supplement 1*(0), 722. doi: [http://dx.doi.org/10.1016/S0924-9338\(10\)70716-1](http://dx.doi.org/10.1016/S0924-9338(10)70716-1)
- Sierles, F., & Taylor, M. (1995). Decline of U.S. medical student career choice of psychiatry and what to do about it. *Am J Psychiatry, 152*(10), 1416 - 1426.
- Sierles, F. S., & Taylor, M. A. (1995). Decline of U.S. medical student career choice of psychiatry and what to do about it. *The American Journal of Psychiatry, 152*(10), 1416-1426.
- Suetani, S., & Alexander, J. (2013). The Adelaide Pre-vocational Psychiatry Programme: meaningful psychiatry training for pre-vocational doctors. *Australasian Psychiatry, 21*(6), 603-604. doi: 10.1177/1039856213497813
- Welch, J., Bridge, C., Firth, D., & Forrest, A. (2011). Improving psychiatry training in the Foundation Programme. *The Psychiatrist, 35*(10), 389-393. doi: 10.1192/pb.bp.111.034009
- Yakeley, J., Shoenberg, P., & Heady, A. (2004). Who wants to do psychiatry? The influence of a students psychotherapy scheme - a 10-year retrospective study. *The Psychiatrist, 28*, 208 - 212.
- Yousaf, F., Hawthorne, M., & Sedgwick, P. (2002). Impact of patient suicide on psychiatric trainees. *Psychiatric Bulletin, 26*(2), 53-55. doi: 10.1192/pb.26.2.53

**APPENDIX A: SUMMARY OF SUMMER SCHOOL COMPONENTS FROM BEATTIE (2013)**

**Summer school 2012 programme: content and qualitative comments (Beattie et al., 2013)**

Session	Objective/summary	Delegate feedback
Introduction	School opened by the director of medical education to instil a sense of the importance of the event, framing the programme while 'breaking the ice'.	
Psychiatry: the past and present	Setting the scene. From the roots to current practice; highlighting the advance of science and growing evidence base.	'Starting at basics and getting an idea of how psychiatry evolved.' 'Good overview and history of psychiatry.' 'It was interesting to find out how psychiatry evolved - good introduction to the day.'
The glamour of psychiatry	The importance of the role of the psychiatrist. Eradicating myths and dealing with stigma within and outside of the medical arena.	'Informal, personal perspective made it very interesting.' 'Gave a good picture of becoming a psychiatrist.' 'Real insight into life in psychiatry.'
The medicine/ psychiatry interface	The 'medical' psychiatrist and how psychiatry interacts with other disciplines in medicine.	'Cleared up concerns about psychiatry's role in medicine.' 'Good to see how psychiatry is connected to more the physical medical bit.'
Dramatisation of personality disorder	A short piece of professionally commissioned drama aimed at communicating patient experience of personality disorder while also facilitating discussion around diagnosis and treatment approaches. This aimed to show the wide-reaching impact of mental disorder and bring to life the patient experience. Students were given a chance to ask the actors questions in character and to ask actors what it felt like to portray and 'become' people with such problems. Emphasising the human component to psychiatry.	'Engaging scenes, I found it really helpful to be able to see how personality disorder affect the patient's life.' 'Very engaging, emotive; generally brilliant.' 'I loved the dramatisation - that gave me the best insight and understanding into psychiatry that I've had so far.'
Psychiatry film club	Looked at stigma and attitudes of the media industry in portraying people with mental health problems, and the psychiatrists caring for them. To reflect on how they may shape the public's beliefs. To teach some elements of the mental state examination in an engaging way. Addressing public perception of psychiatry, both positive and negative.	'Gave a new way of looking at films and TV.' 'Good insight into public perspective of conditions.' 'Engaging, made me think a lot about the different mental illnesses.' 'Really good session which was educational and fun!'
Training in psychiatry	What it is like to train in psychiatry and the current career pathways. Emphasising the pathway but also the opportunities within psychiatric training.	'Informative about what will happen to us and what we need to know.' 'It's essential for people who think about doing this speciality.'
Research in psychiatry	An introduction to the exciting advances that are being made in psychiatry, but also the nuances which make research in psychiatry a unique challenge. Reinforcing the scientific underpinning of psychiatry.	'It was inspirational hearing about presenters' personal experiences in research and advice for medical students who want a career in research.'
Clinical case presentations	Case presentations by higher trainees that were used to highlight the role of psychiatrists in diagnostic challenges and managing complex cases. Presented by higher trainees to display some complexities psychiatrists faced. Allowing the students to experience the dilemmas and rewarding aspects of real patient care.	'Exciting, animated, detailed, pitching at right level - interesting and challenging case.' 'Engaging, interesting, insight into work within specialities and with individuals.'
Psychometric testing	To demonstrate that someone's psychological make-up can have an influence on the kind of doctor they may become. An appreciation of their personality preferences and the chance to take something away that they had learnt about themselves.	'Understanding interaction between people of different personality types, very informative.' 'Interesting perspective into personality and understanding yourself.' 'I found out I was an introvert - I get it now!'
Speed dating (followed by a free evening meal at Durham Restaurant with	Opportunity to meet a diverse range of consultants and higher trainees from different specialties which allowed them to explore these at each station. This	'Wide range of specialities, lots of good advice and an insight in a very short space of time!' 'I felt highly involved because of the 1:1

consultants and trainees)	was aimed at enabling them to dispel myths but also appreciate and gain more knowledge of the breadth of psychiatry.	interactions. I was also able to ask questions to suit my needs.' 'Speed dating was a brilliant way to get to know a little bit about each topic.' 'They (the consultants) were enthusiastic, honest and open.'
Parallel clinical workshops (addictions, PTSD, EMDR, perinatal, psychotherapy, forensic)	These were designed to give the students a greater insight into clinical work through presentation of patient journeys, with a focus on the role of the psychiatrist and patient recovery.	'The individual workshops were very informative and a good opportunity to see subsets of psychiatry I wouldn't normally have been exposed to.' 'She (perinatal psychiatrist) was informative but very kind and lovely to watch.' 'New information well presented by someone who was clearly passionate and motivated.'
Quizzes	To show the complexities and knowledge needed to practice psychiatry, but in a fun and relaxed way.	A good mix of important information and trivia.' 'It was fun, entertaining and educational.' 'It was fun, showed everyone's sense of humour.' 'Fun and laid back end to the week.'
Closing with essential feedback	Event closed by director of medical education.	

