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RUNNING HEAD: UNDERGRADUATES IN FORENSIC PSYCHIATRY

A critical review of undergraduate education and teaching in forensic psychiatry

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All authors listed meet the authorship criteria according to the latest guidelines of the international committee of medical journal editors, and all authors are in agreement with the manuscript.

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#### ABSTRACT

**Background:** Although forensic psychiatry is recognised as a full medical specialty in the UK, training in it is not routinely offered to medical students. With growth both in forensic psychiatry and availability of medical school places, it is a good time to explore the nature and quality of experience already available.

**Aims:** 1. To map the literature against the GREET checklist for reporting evidence-based practice educational interventions and teaching of medical students in forensic psychiatry; 2. To critically review research and scholarship; 3. To identify gaps in evidence based education for medical students in forensic psychiatry.

**Method:** A systematic search of three bibliographic databases from inception to December 2021 was undertaken using keywords related to medical students and forensic psychiatry between December 2021 and March 2022. The search was supplemented by citation and hand searching.

**Results:** Eight articles were identified. Collectively they suggest that education and teaching were implemented at a local level and not linked to theories of learning. Exposure to forensic psychiatry stimulated positive attitudes, which amplified interest in psychiatry. There was insufficient evidence to determine optimal undergraduate education and teaching practice in forensic psychiatry.

Conclusions: Forensic psychiatry appears to have much to offer the medical undergraduate as part of core learning in psychiatry, including universal skills and knowledge such as ethical decision making and handling emotions. There appears to be considerable opportunity for education, teaching and research innovation in undergraduate education and teaching in forensic psychiatry. Interesting areas for development include simulated and coproduced education.

#### INTRODUCTION

Forensic psychiatry has been defined in England as 'the assessment, care and treatment of mentally disordered offenders and others requiring similar services. Risk assessment and management and the prevention of further victimisation are core elements of this (RCPsych, 2022b p.2)'. In forensic mental health settings, as in other specialties, complex structures, pathways, and models of care bridge the legal framework and processes integrating medical ethics and human rights (Kennedy, 2022). Forensic psychiatrists like other physicians protect and promote the health of patients and the public (Taylor et al., 2013) and often serve as expert witnesses in court (Mullen, 2000, Awodiya et al., 2021). The knowledge and competencies required by forensic psychiatrists differ from general adult psychiatrists, with a greater focus on violence and criminal offending in association with mental disorder as a source of risk of harm to others (RCPsych, 2022b).

Forensic psychiatry has formal recognition in the United Kingdom (UK) as a medical speciality and requires a certificate of completed training (CCT) (Sebastian, 2012). Curriculum approval rests firmly with the General Medical Council (General Medical Council, 2023). The international context differs considerably as cultures, resources and services govern social responses to offending (Soothill, 2008). In the United States of America for example, the therapeutic role of the forensic psychiatrist tends to be more of a quasi-legal position that prioritises court work rather than service provision (Gunn, 2000).

Education and teaching in forensic psychiatry have not historically been a core component of undergraduate medical education in either the USA (Frierson, 2020) or the UK (Thomas, 2012). Generally, opportunities for medical students to spend time with forensic psychiatrists in secure settings have been inconsistent, contingent on local service provision (Byrne et al., 2020) and potentially limited by possible stigmatising attitudes towards offender patients in wider community mental health services, currently being researched (Vorstenbosch, Masoliver-Gallach & Escuder-Romev, 2022). Nevertheless, there are visions of what may be achieved (e.g. McGauley and Campbell, 2004). In many medical schools and locations, undergraduate experiences in forensic psychiatry have been limited to taster sessions, electives, or special study modules, which

have enabled interested students to study topics of personal interest in more depth (Martin and Martin, 2023). Most opportunities to spend time in forensic settings have remained postgraduate (Thomas, 2012).

An increase in medical school places and the number of medical schools (UK Parliament, 2017) has resulted in additional demand for undergraduate placements in the UK and all opportunities for clinical placements will need to be used in resource stretched services (Nisbet et al., 2021). Forensic psychiatry is an expanding speciality (Kennedy, 2022) and it appears likely that there will be more students being taught in forensic settings. A critical evaluation of educational interventions and teaching in forensic psychiatry appears timely.

## Our aims, therefore, were:

- 1. To map the published literature against the GREET checklist for reporting evidence-based practice educational interventions and teaching of medical students in forensic psychiatry.
- 2. To critically review relevant research and scholarship.
- 3. To identify knowledge gaps in evidence based education for medical students in forensic psychiatry.

#### **METHOD**

A systematic search of Medline, EMBASE and PsychINFO from inception to December 2021 using a combination of keywords related to medical students and forensic psychiatry (Supplementary file one), combined with Boolean operators, was undertaken by Lancashire and South Cumbria Foundation Trust academic library in December 2021. The search was limited to English language publications. The bibliographic database search was supplemented by citation and hand searching between January and March 2022. An additional search of Google Scholar was undertaken in April 2023. Any article exploring any educational intervention or teaching of medical students in forensic psychiatry was eligible for inclusion. The historical development of undergraduate

medical education in forensic psychiatry was considered important to the review and no article was excluded based on quality, but the presentation of some pertinent empirical data was a requirement.

Data from eligible articles were extracted into a Microsoft Excel (2016) spreadsheet against the guideline for reporting evidence-based practice educational interventions and teaching (GREET) (Phillips et al., 2016) to map the literature across the domains. GREET offers a 17 item reporting guideline to appraise educational interventions, including why, what, who, how, where, when, how much, planned changes, attendance, and if strategies and materials have been used as planned (Phillips et al., 2016).

Relevant methodological reporting criteria recommended by the EQUATOR network were used to critically review the evidence. The reporting criteria used in this review comprised: the consensus based checklist for reporting of survey studies (CROSS) (Sharma et al., 2021); the standards for reporting qualitative research (SRQR) (O'Brien et al., 2014); and the defined criteria to report innovations in education (DoCTRINE) (Blanco et al., 2022).

#### RESULTS

Figure 1 shows the number of records retrieved in the searches and the process of selection. Just four articles were eligible for inclusion in the review from the database searching (Figure 1); an additional four articles were identified by the hand searching methods. All studies were mapped against the relevant methodological reporting criteria recommended by the EQUATOR network as well as the GREET checklist (Phillips et al., 2016) for reporting evidence-based practice educational interventions and teaching (Supplementary file two). The identified literature was disparate and methodologically weak.

## Figure 1 about here

The characteristics of the included studies are reported in Table 1. The literature spanned 1958-2018, with the early literature focused predominantly on the teaching of undergraduate forensic psychiatry in American Universities (Felthous and Miller, 1989, Sadoff, 1974, Stoller, 1958). The contemporary literature mostly explored the education and teaching of forensic psychiatry in practice settings (Archer et al., 2017, Mortlock et al., 2017, Kennedy and Wilkinson, 2018, Thomson et al., 1999). One study, however, provided a broad overview of University based teaching and practice (Reiss and Chamberlain, 2001). Three studies were conducted in a high security hospital setting (Archer et al., 2017, Mortlock et al., 2017, Thomson et al., 1999). Two studies (Mortlock et al., 2017, Archer et al., 2017) appeared to describe the same teaching programme at the same high secure hospital.

### Educational and teaching interventions and theory

In the American literature, undergraduate education comprised undergraduate clinical placements (Felthous and Miller, 1989), interdisciplinary courses, and lectures in forensic psychiatry (Felthous and Miller, 1989, Sadoff, 1974, Stoller, 1958). A survey of 127 medical schools in the United States identified a range of taught content including competency to stand trial, the insanity defence, the duty to warn and protect, and testamentary capacity (Felthous and Miller, 1989). Other undergraduate topics identified in the literature included substance misuse and sexual offending (Sadoff, 1974), the

M'Naghten rules and the psychiatrist in court (Stoller, 1958). Student led teaching and learning (Kennedy and Wilkinson, 2018) and an interactive style (Thomson et al., 1999) were considered more engaging for students than teacher led instruction.

Theory located was sparse; teaching methodologies at the interface between law and medicine have rarely been explored in depth and no pedagogy has reportedly demonstrated long term effectiveness (Kennedy and Wilkinson, 2018).

#### Learning objectives and evidence based practice

There was a range of justifications for delivering educational interventions and teaching in forensic psychiatry. These were: to stimulate thinking and promote interest in forensic psychiatry (Thomson et al., 1999, Felthous and Miller, 1989); to attract medical students to postgraduate psychiatry training (Sadoff, 1974, Reiss and Chamberlain, 2001) and to promote attitudes and values consistent with treating people suffering from mental illness (Thomson et al., 1999, Archer et al., 2017). In his 1958 paper, Stoller debated whether forensic psychiatry was a priority in an overloaded curriculum (Stoller, 1958). Literature originating from the United States reported medical students benefitted from being exposed to the intersection between medicine and the law during undergraduate studies (Felthous and Miller, 1989, Sadoff, 1974, Stoller, 1958). In the UK context, forensic psychiatry teaching was reported to provide transferrable skills relevant to wider medical practice e.g., the treatment of chronic conditions (Reiss and Chamberlain, 2001).

## Teaching material, strategies and incentives

Medical students were offered the opportunity to take part in interactive question and answer sessions, spend time on wards interviewing patients under supervision and to present their findings, as well as the opportunity to tour Broadmoor high secure hospital (Archer et al., 2017, Mortlock et al., 2017). General teaching resources included published articles and books (Felthous and Miller, 1989, Kennedy and Wilkinson, 2018, Sadoff, 1974), case studies (Felthous and Miller, 1989, Stoller, 1958), films and videos (Felthous and Miller, 1989, Kennedy and Wilkinson, 2018, Sadoff, 1974). Students

undertaking special study modules undertook student directed research and delivered seminars or poster presentations on a chosen topic (Kennedy and Wilkinson, 2018).

No teaching materials designed to elicit attitudinal change were provided in the literature (Archer et al., 2017, Mortlock et al., 2017, Thomson et al., 1999). No inducements to attend the forensic psychiatry setting were reported in any study.

#### **Instructors**

Teaching was primarily delivered by psychiatrists (Archer et al., 2017, Felthous and Miller, 1989, Mortlock et al., 2017, Kennedy and Wilkinson, 2018, Sadoff, 1974, Reiss and Chamberlain, 2001). Sessions provided by lawyers were also reported (Felthous and Miller, 1989, Kennedy and Wilkinson, 2018, Sadoff, 1974), as well as psychologists (Felthous and Miller, 1989), academics (Thomson et al., 1999, Reiss and Chamberlain, 2001), social workers, anthropologists (Sadoff, 1974) and nurses (Reiss and Chamberlain, 2001). There was no reference in the literature to experts by experience, including those with lived experience as patients, delivering education and teaching in forensic psychiatry at the undergraduate level.

### **Delivery**

Students received teaching sessions on forensic psychiatry in both face-to-face small group practicums (Archer et al., 2017) and in larger classroom groups (Archer et al., 2017, Kennedy and Wilkinson, 2018, Mortlock et al., 2017, Sadoff, 1974, Reiss and Chamberlain, 2001). Medical students also engaged in problem based learning (Kennedy and Wilkinson, 2018) and attended conferences, seminars, and workshops (Stoller, 1958, Felthous and Miller, 1989, Reiss and Chamberlain, 2001). No report of virtual education and teaching in forensic psychiatry was located in the literature.

### Environment, schedule, attendance and contact with instructors

The literature suggested medical students received educational and learning opportunities predominantly in high secure hospitals (Archer et al., 2017, Mortlock et al., 2017, Thomson et al., 1999). However, some relevant learning took place in low and medium secure forensic services, prisons and court clinics (Felthous and Miller, 1989, Kennedy and Wilkinson, 2018, Sadoff, 1974), and at Universities (Sadoff, 1974, Reiss and Chamberlain, 2001). Medical students received varied amounts of formal teaching in forensic psychiatry ranging from 1 hour (Stoller, 1958) up to eight hours (Reiss and Chamberlain, 2001). Special study modules in forensic psychiatry provided between four and twelve weeks in forensic psychiatry (Kennedy and Wilkinson, 2018, Reiss and Chamberlain, 2001). Undergraduates typically visited clinical areas for less than one day (Reiss and Chamberlain, 2001).

Student experience evaluations were concentrated on attitudes to psychiatry (Archer et al., 2017, Mortlock et al., 2017). No evaluation of the optimum environment, schedule, attendance or contact with instructors was identified.

#### Adaptability of educational interventions and teaching

No account of any adapted or modified educational interventions was located in the literature. No literature was identified on how to approach educational interventions and teaching in forensic psychiatry for medical students with lived experience of psychological trauma or with students who had been victims of crime themselves.

#### **DISCUSSION**

There is a paucity of evidence on the outcomes of teaching forensic psychiatry to undergraduate medical students. Nevertheless, there is some support for exposure to educational interventions and teaching in forensic psychiatry stimulating positive attitudes in the short term in the majority of students (Archer et al., 2017, Mortlock et al., 2017). A shift in attitude might be sufficient for some students to consider a career in forensic psychiatry (Archer et al., 2017, Felthous and Miller, 1989, Thomson et al., 1999) or psychiatry more broadly (Mortlock et al., 2017). While student experiences have been linked to the decision to choose a career in psychiatry (Baldwin et al 1998), a systematic review found the effectiveness of teaching and the quality of educational experiences were more influential than time spent in any speciality (Choudry and Farooq, 2017).

Teaching in undergraduate psychiatry has mainly consisted of clinical teaching in psychopathology and history taking along with lectures, reading lists, small group tutorials, workshops, problem based learning, role play, and more recently simulation and virtual learning environments with a balance struck between online and in-person teaching (Ruddock and Clafferty, 2023). Education and teaching specific to undergraduate forensic psychiatry have predominantly been developed and implemented at a local level, without any curriculum guidance, and rarely underpinned by learning theories, potentially limiting the development of knowledge, skills and facilitative attitudes (Taylor and Hamdy, 2013). Conceivably, this may have limited opportunities for medical students to get the most out of learning in forensic psychiatry, particularly if it is to inform other aspects of their practice too.

## What this work adds to what is already known

At the postgraduate level in the UK, the curricula, learning objectives, teaching, and assessment methods in forensic psychiatry have been clearly set out (RCPsych, 2022b) and monitored for quality assurance (Sebastian, 2012). In undergraduate medical training, however, exposure to forensic psychiatry has been *ad hoc* and limited (Thomson et al., 1999). Undergraduate education and teaching on forensic psychiatry have been overlooked despite recent endeavours to improve education and teaching in other important areas such as substance misuse

(International Centre for Drug Policy, 2012). Forensic psychiatry appears to have much to offer the medical undergraduate as part of core learning in psychiatry. From its specialist perspective at the interface with law, it also offers undergraduates opportunities to develop skills and knowledge with relevance to wider medical practice (Reiss and Chamberlain, 2001).

Forensic psychiatry and particularly medium secure and non-hospital settings are an underused resource (Reiss and Chamberlain, 2001). There is a need to engage key stakeholders formally to gain consensus on how forensic psychiatry can most contribute to the undergraduate medical educational agenda, supporting future doctors as scholars, scientists, practitioners and professionals (RCPsych, 2022a). There is a need to understand medical student experiences of forensic psychiatry in depth and the barriers and facilitators faced by medical educators. There appears to be considerable opportunity for education and teaching innovation in undergraduate medical education in forensic psychiatry including expanding the use of technology, simulation and coproduction.

### Strengths and limitations

Only eight studies were identified in this review. The literature was disparate and limited to an expert report (Kennedy et al 2018), surveys of medical schools in the United States of America (Felthous and Miller, 1989, Sadoff, 1974, Stoller, 1958) and surveys on medical student attitudes (Archer et al., 2017, Mortlock et al., 2017, Thomson et al., 1999) with only one study providing an overview of University based teaching and practice in forensic psychiatry in the UK (Reiss and Chamberlain, 2001). Three of the studies focused on high security settings (Mortlock et al., 2017, Thomson et al., 1999, Archer et al., 2017) and there was a lack of literature specific to low or medium security settings. Optimal educational interventions and teaching of medical students in secure psychiatric settings may differ according to the year of study but there was no attempt to stratify students by year group in the literature. A decision was taken not to exclude any study based on quality.

## Implications from the findings of this review for future research and practice

This review indicates a need to consider undergraduate education and teaching in forensic psychiatry in the UK context in which forensic psychiatry is a recognised medical speciality with a defined training programme (RCPsych, 2022b). Forensic psychiatrists have a recognised role in the UK (RCPsych, 2022b) unlike some other countries, which have no formal speciality training (Thomson et al., 1999). Given the status of forensic psychiatry in the UK, undergraduate education and teaching on the subject of forensic psychiatry appears to have been overlooked as part of the psychiatry component of the undergraduate medical curricula, which is out of step with the demand from society and the care and treatment required by patients (Reiss and Chamberlain, 2001).

Forensic psychiatry, seems to have much to offer the medical undergraduate as part of the core curriculum in psychiatry e.g., developing knowledge of complex psychiatric disorders, theory and treatments (the doctor as a scholar and a scientist) and in the application of knowledge (the doctor as practitioner) (RCPsych, 2022a). Moreover, forensic psychiatry can offer ample opportunity to develop accurate empathy towards people experiencing mental illness and distress (the doctor as professional) (RCPsych, 2022a). Forensic psychiatry appears particularly well placed to offer special study modules as the specialty offers considerable opportunities for in depth study and a longitudinal perspective of mental illness (Reiss and Chamberlain, 2001).

Forensic psychiatry can develop universal skills and knowledge, with relevance to wider medical practice (Reiss and Chamberlain, 2001), including the assessment and management of multimorbidity; uncertainty; safeguarding; team working; understanding and applying ethical and legal frameworks (General Medical Council, 2018) and capacity, consent, confidentiality and human rights (McGauley and Campbell, 2004). Medical students do not solely require skills and knowledge, they need to acquire professionalism (Taylor and Hamdy, 2013). As undergraduates are expected to learn to be inclusive and recognise the impact of attitudes, values and beliefs and personal biases (General Medical Council, 2018) more opportunities to learn from forensic psychiatrists may be beneficial.

Exposure to forensic psychiatry and complex and risky situations may be stressful and emotionally challenging (Sebastian, 2012) but with support and planning these experiences can provide valuable learning. Opportunities for meaningful learning experiences in novel environments, such as secure settings, may enable constructivist approaches to learning, promoting engagement, and participation, moving beyond the acquisition of knowledge and skills, and enabling medical students to build on existing knowledge through deep philosophical reflection (Verduin et al., 2013). Learning to process uncomfortable emotions as a student may be valuable to developing professional expertise (de Vries-Erich et al., 2016).

Although medical students were sometimes placed in forensic psychiatry as a compulsory part of medical training (Mortlock et al., 2017) there was no discussion of the implications of this in the identified literature. The use of technology and simulation in forensic psychiatry might provide a useful and supportive adaptation for learners. The addition of simulated teaching in forensic psychiatry might also add value to undergraduate learning in important areas such as ethical decision making (General Medical Council, 2018) e.g., via mock jury experiences (Chalmers et al., 2021); developing therapeutic relationships (Marshall and Adams, 2018); managing challenging emotional responses and relational working (Allen, 2015). There was no literature describing digital technology in undergraduate teaching in forensic psychiatry despite discourse on digital resources and other technologies in other fields of psychiatry (Petrie et al., 2019). The implementation and evaluation of new technologies and simulated teaching in forensic psychiatry appears an important area for development.

No literature on coproduced undergraduate medical education in forensic psychiatry was located. Coproduction remains in its infancy in the criminal justice mental health sector, although there has been much collective interest in developing coproduction activities (Co-Production Collective, 2021). Coproduced education provides rich, transformative learning experiences (Happell et al., 2022), which ensure learners are connected to humanity (Horgan et al., 2018). A key nursing paper on coproduction in secure settings described a tension between relational work and what the authors described as 'a safety and security first mantra' in the secure setting (McKeown et al., 2014). This tension may not be immediately apparent to medical students on brief placements. Evolving coproduction as part of undergraduate

education and teaching in forensic psychiatry appears to be an educational and research priority.

Forensic psychiatry arguably provides an underused and valuable resource for undergraduates (Reiss and Chamberlain, 2001). Qualitative research exploring the views and perspectives of medical students undertaking placements in forensic psychiatry may be a useful starting point for understanding student experiences in depth as well as understanding the barriers and facilitators faced by medical educators. The use of consensus building research approaches such as Delphi may be useful to formally engage key stakeholders in investigating how forensic psychiatry can most purposefully contribute to the undergraduate medical educational agenda, supporting future doctors as scholars, scientists, practitioners and professionals (RCPsych, 2022a). There appears to be substantial opportunity for education and teaching innovation in undergraduate medical education in forensic psychiatry.

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### **REFERENCES**

- ALLEN, E. 2015. See think act [Online]. UK: Royal College of Psychiatrists Quality Network for Forensic Mental Health Services. Available: <a href="https://www.rcpsych.ac.uk/docs/default-source/improving-care/ccqi/quality-networks/secure-forensic/forensic-see-think-act-qnfmhs/sta\_hndbk\_2nded\_web.pdf?sfvrsn=90e1fc26\_4 [Accessed 24/03/2019 2019].
- ARCHER, A., GULIANI, J., JOHNS, F., MCCARTNEY, E., SMITH, N. E., ROSS, C., SENGUPTA, S. & DAS, M. 2017. Effectiveness of a single day induction programme in changing medical students attitudes towards the speciality of forensic psychiatry. *Australasian psychiatry: bulletin of Royal Australian and New Zealand college of psychiatrists*, 26, 73-77.
- AWODIYA, A., WHELAN, P. & PETTIT, J. 2021. How to make the most of your psychiatry placement. *BMJ.* UK: BMJ.
- BLANCO, M., PRUNUSKE, J., DICORCIA, M., LEARMAN, L. A., MUTCHESON, B. & HUANG, G. C. 2022. The DoCTRINE Guidelines: Defined Criteria To Report Innovations in Education. *Acad Med*, 97, 689-695.
- BYRNE, F., MURPHY, R., O'ROURKE, L., COTTER, D., MURPHY, K. C., GUERANDEL, A., MEAGHER, D., SWEENEY, E., GILL, M., CAMPBELL, A., MCDONALD, C. & HALLAHAN, B. 2020. A comparison of undergraduate teaching of psychiatry across medical schools in the Republic of Ireland. *Irish journal of psychological medicine*, 37, 77-88.
- CHALMERS, J., F., L. & MUNRO, V. E. 2021. The provenance of what is proven: exploring (mock) jury deliberation in Scottish rape trials. *Journal of Law and Society*, 48, 226-249.
- CHOUDRY, A. & FAROOQ, S. 2017. Systematic review into factors associated with the recruitment crisis in psychiatry in the UK: students', trainees' and consultants' views. *BJPsych Bull*, 41, 345-352.
- CO-PRODUCTION COLLECTIVE. 2021. *Co-Production in Prison, Secure and Forensic Mental Health Services* [Online]. UK,: Co-Production Collective,. Available: <a href="https://www.coproductioncollective.co.uk/news/co-production-in-prison-secure-and-forensic-mental-health-services">https://www.coproductioncollective.co.uk/news/co-production-in-prison-secure-and-forensic-mental-health-services</a> [Accessed 12/07/22 2022].
- DE VRIES-ERICH, J. M., DORNAN, T., BOERBOOM, T. B. B., JAARSMA, A. D. C. & HELMICH, E. 2016. Dealing with emotions: medical undergraduates' preferences in sharing their experiences. *Medical Education*, 50, 817-828.
- FELTHOUS, A. R. & MILLER, R. D. 1989. Teaching forensic psychiatry to medical students. *Journal of forensic sciences*, 34, 871-880.
- FRIERSON, R. L. 2020. Examining the Past and Advocating for the Future of Forensic Psychiatry Training. *J Am Acad Psychiatry Law*, 48, 16-25.
- GENERAL MEDICAL COUNCIL 2018. *Outcomes for Graduates,* England and Wales, General Medical Council.
- GENERAL MEDICAL COUNCIL. 2023. Excellence by design [Online]. England, Wales and Scotland: General Medical Council. Available: <a href="https://www.gmc-uk.org/education/standards-guidance-and-curricula/standards-and-outcomes/excellence-by-design">https://www.gmc-uk.org/education/standards-guidance-and-curricula/standards-and-outcomes/excellence-by-design</a> [Accessed 20/5/23 2023].
- GUNN, J. 2000. Future directions for treatment in forensic psychiatry. *Br J Psychiatry*, 176, 332-8
- HAPPELL, B., WARNER, T., WAKS, S., O'DONOVAN, A., MANNING, F., DOODY, R., GREANEY, S., GOODWIN, J., HALS, E., GRIFFIN, M., SCHOLZ, B., GRANERUD, A., PLATANIA-PHUNG, C., RUSSELL, S., MACGABHANN, L., PULLI, J., VATULA, A., VAN DER VAART, K. J., ALLON, J.,

- BJORNSSON, E., ELLILÄ, H., LAHTI, M. & BIERING, P. 2022. Something special, something unique: Perspectives of experts by experience in mental health nursing education on their contribution. *Journal of Psychiatric and Mental Health Nursing*, 29, 346-358.
- HORGAN, A., MANNING, F., BOCKING, J., HAPPELL, B., LAHTI, M., DOODY, R., GRIFFIN, M., BRADLEY, S. K., RUSSELL, S., BJORNSSON, E., O'DONOVAN, M., MACGABHANN, L., SAVAGE, E., PULLI, J., GOODWIN, J., VAN DER VAART, K. J., O'SULLIVAN, H., DORRITY, C., ELLILA, H., ALLON, J., HALS, E., SITVAST, J., GRANERUD, A. & BIERING, P. 2018. 'To be treated as a human': Using co-production to explore experts by experience involvement in mental health nursing education The COMMUNE project. *Int J Ment Health Nurs*, 27, 1282-1291.
- INTERNATIONAL CENTRE FOR DRUG POLICY 2012. Substance misuse in the undergraduate medical curriculum project report. England,: St Georges University of London
- KENNEDY, H. 2022. Models of care in forensic psychiatry. BJPsych Advances, 28, 46-59.
- KENNEDY, K. M. & WILKINSON, A. 2018. A Student Selected Component (or Special Study Module) in Forensic and Legal Medicine: Design, delivery, assessment and evaluation of an optional module as an addition to the medical undergraduate core curriculum. *J Forensic Leg Med*, 53, 62-67.
- MARSHALL, L. & ADAMS, E. 2018. Building from the ground up: exploring forensic mental health staff's relationships with patients. *The Journal of Forensic Psychiatry & Psychology*, 29, 744-761.
- MARTIN, J. & MARTIN, D. 2023. Beyond the Undergraduate Core Curriculum *In:* MARTIN, J. H., P. (ed.) *Teaching Psychiatry to Undergraduates* 2nd ed. UK: Cambridge University Press.
- MCGAULEY, G. & CAMPBELL, C. 2004. Do medical students need to know anything about forensic psychiatry. *Criminal behaviour and mental health*, 14, 6-11.
- MCKEOWN, M., JONES, F., WRIGHT, K., SPANDLER, H., WRIGHT, J., FLETCHER, H., DUXBURY, J., MCVITTIE, J., SIMON & TURTON, W. 2014. It's the talk: a study of involvement initiatives in secure mental health settings. *Health Expect*, 19, 570-9.
- MORTLOCK, A., PUZZO, I., TAYLOR, S., KUMARI, V., YOUNG, S., SENGUPTA, S. & DAS, M. 2017. Enrichment activities in the medical school psychiatry programme - could this be a key to engaging medical students in psychiatry? A study from a high secure forensic hospital. *BMC Psychiatry*, 17.
- MULLEN, P. E. 2000. Forensic mental health. *British Journal of Psychiatry,* 176, 307-311. NISBET, G., MCALLISTER, S., MORRIS, C. & JENNINGS, M. 2021. Moving beyond solutionism: Re-
- NISBET, G., MCALLISTER, S., MORRIS, C. & JENNINGS, M. 2021. Moving beyond solutionism: Reimagining placements through an activity systems lens. *Medical Education*, 55, 45-54.
- O'BRIEN, B. C., HARRIS, I. B., BECKMAN, T. J., REED, D. A. & COOK, D. A. 2014. Standards for reporting qualitative research: a synthesis of recommendations. *Acad Med*, 89, 1245-51.
- PAGE, M. J., MCKENZIE, J. E., BOSSUYT, P. M., BOUTRON, I., HOFFMANN, T. C., MULROW, C. D., SHAMSEER, L., TETZLAFF, J. M., AKL, E. A., BRENNAN, S. E., CHOU, R., GLANVILLE, J., GRIMSHAW, J. M., HRÓBJARTSSON, A., LALU, M. M., LI, T., LODER, E. W., MAYOWILSON, E., MCDONALD, S., MCGUINNESS, L. A., STEWART, L. A., THOMAS, J., TRICCO, A. C., WELCH, V. A., WHITING, P. & MOHER, D. 2021. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ*, 372, n71.
- PETRIE, K., TROLLOR, J., DEAN, K. & HARVEY, S. 2019. Medical students' preferences regarding Psychiatry teaching: a comparison of different lecture delivery methods. *MedEdPublish*, 8.
- PHILLIPS, A. C., LEWIS, L. K., MCEVOY, M. P., GALIPEAU, J., GLASZIOU, P., MOHER, D., TILSON, J. K. & WILLIAMS, M. T. 2016. Development and validation of the guideline for reporting

- evidence-based practice educational interventions and teaching (GREET). *BMC Med Educ,* 16, 237.
- RCPSYCH. 2022a. *Curricula documents and resources* [Online]. England and Wales,: RC PSYCH, . Available: <a href="https://www.rcpsych.ac.uk/training/curricula-and-guidance/curricula-implementation/curricula-documents-and-resources">https://www.rcpsych.ac.uk/training/curricula-and-guidance/curricula-implementation/curricula-documents-and-resources</a> [Accessed 20/5/23 2023].
- RCPSYCH 2022b. Forensic Psychiatry Royal College of Psychiatrists Higher Specialty Curriculum (ST4 ST6). United Kingdom: RCPsych.
- REISS, D. & CHAMBERLAIN, S. 2001. A survey of forensic psychiatry teaching in UK medical schools. *Psychiatric Bulletin*, 25, 299-301.
- RUDDOCK, K. & CLAFFERTY, R. 2023. Understanding Curriculum Design. *In:* MARTIN, J. H., P. (ed.) *Teaching Psychiatry to Undergraduates* UK: Cambridge University Press.
- SADOFF, R. L., THRASHER, J.W., GOTTLEIB, D.W. 1974. Survey of teaching programmes in law and psychiatry *The bulletin of the american academy of psychiatry and the law,* 15, 319-327.
- SEBASTIAN, L. 2012. Specialist training in forensic psychiatry. *Criminal behaviour and mental health*, 22, 252-256.
- SHARMA, A., MINH DUC, N. T., LUU LAM THANG, T., NAM, N. H., NG, S. J., ABBAS, K. S., HUY, N. T., MARUŠIĆ, A., PAUL, C. L., KWOK, J., KARBWANG, J., DE WAURE, C., DRUMMOND, F. J., KIZAWA, Y., TAAL, E., VERMEULEN, J., LEE, G. H. M., GYEDU, A., TO, K. G., VERRA, M. L., JACQZ-AIGRAIN É, M., LECLERCQ, W. K. G., SALMINEN, S. T., SHERBOURNE, C. D., MINTZES, B., LOZANO, S., TRAN, U. S., MATSUI, M. & KARAMOUZIAN, M. 2021. A Consensus-Based Checklist for Reporting of Survey Studies (CROSS). *J Gen Intern Med*, 36, 3179-3187.
- SOOTHILL, K. 2008. Handbook of Forensic Mental Health. *In:* SOOTHILL, K. D., M. ROGERS, P. (ed.) *Handbook of Forensic Mental Health* London and New York: Routledge.
- STOLLER, R. J. 1958. The teaching of forensic psychiatry in American and Canadian medical centres. *The American Journal of Psychiatry*, 115, 150-153.
- TAYLOR, D. C. M. & HAMDY, H. 2013. Adult learning theories: Implications for learning and teaching in medical education: AMEE Guide No. 83. *Medical Teacher*, 35, e1561-e1572.
- TAYLOR, P. J., WOOLFENDEN, N. & NEDOPIL, N. 2013. Forensic psychiatry training in Europe. *Die Psychiatrie,* 10, 181-187.
- THOMAS, A. 2012. What about forensic psychiatry as a career? Undergraduate and early post-graduate medical perspectives. *Criminal Behaviour and Mental Health*, 22, 247-251.
- THOMSON, L. D. G., GRAY, C. M. & HUMPHREYS, M. S. 1999. Medical students perspective of maximum security psychiatry care. *Psychiatric Bulletin*, 23, 230-232.
- UK PARLIAMENT. 2017. *Medical School Places in England from September 2018* [Online]. England: UK Parliament. Available: <a href="https://commonslibrary.parliament.uk/research-briefings/cbp-7914/">https://commonslibrary.parliament.uk/research-briefings/cbp-7914/</a> [Accessed 20/5/23 2023].
- VERDUIN, M., BOLAND, R. & GUTHRIE, T. 2013. New directions in medical education related to psychiatry. *International Review of Psychiatry*, 25, 338-346.
- VORSTENBOSCH, E. & MASOLIVER-GALLACH, R., and ESCUDER-ROMEV G. 2022. Measuring professional stigma towards patients with a forensic mental health status: protocol for a Delphi consensus study on the design of a questionnaire. *BMJ Open*, 12, e061160.

Figure 1 PRISMA diagram adapted from Page et al. (2021)

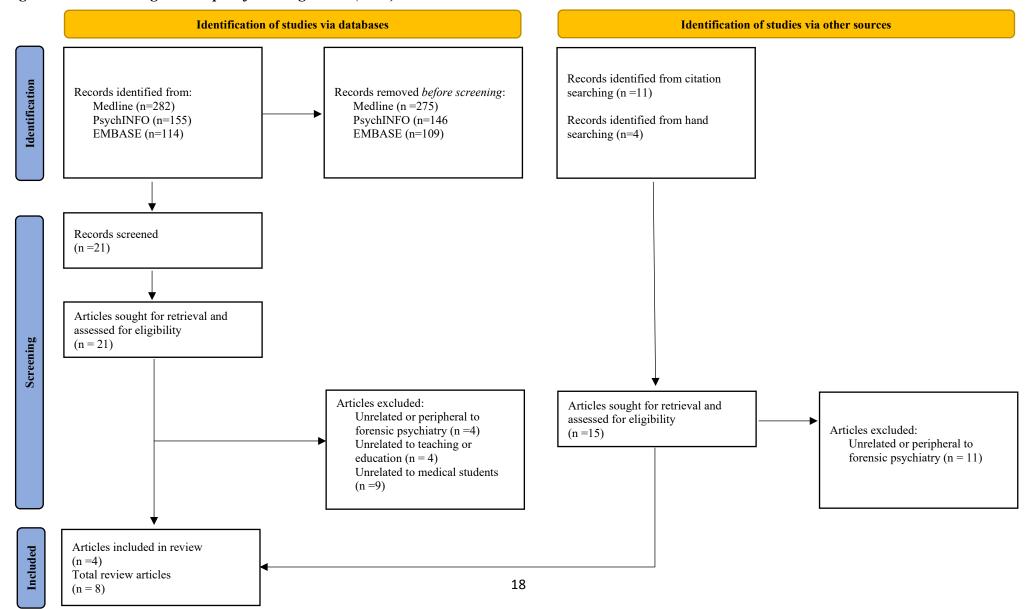


Table 1. Characteristics of included studies and critical review of the evidence

Author and year	Title	Origin	Study design	Intervention	Reporting quality tool	Strengths	Limitations
Archer et al. (2017)	Effectiveness of a single day induction programme in changing medical students attitudes towards the speciality of forensic psychiatry	UK	Qualitative Survey of 4th year medical students (n=296)	A single day induction programme in a high security hospital	SRQR	Participation was mandatory by all medical students on placement as part of a service evaluation in medical education, reducing the risk of selection bias. Authors report the educational programme was easily achievable and was an effective way	Students were asked the question - what do you think of Broadmoor at the beginning and end of the day. No follow up of reported attitudinal change. The authors report findings from the high secure setting may not be generalisable to other psychiatric settings.

						of changing attitudes.	
Felthous and Miller (1989)	Teaching forensic psychiatry to medical students	US	Survey and interviews with medical school representatives from (n=127)	Undergraduate courses offering separate credit for study in forensic/legal psychiatry	CROSS	Survey sought to establish the number of separate courses in forensic/legal psychiatry and explored teaching methods. Authors report all US medical schools were surveyed via post or telephone.	Questionnaire and medical school characteristics were unreported. May not have relevance to current UK practice.

Mortlock et al.	Enrichment	UK	Survey of 3rd	A visit to a high	CROSS	Questionnaire	Authors state
(2017)	activities in the		and 4th year	secure hospital		was reported	different
	medical school		medical	as part of		and used a	medical schools
	psychiatry		students from	compulsory		validated	may place a
	programme -		Oxford	medical		instrument	different
	could this be a		University,	training		(ATP-30) to	emphasis on
	key to engaging		Imperial			measure	psychiatry in
	medical		College, St			attitudes	both academic
	students in		Georges and			towards	studies and
	psychiatry? A		Kings College			psychiatry. The	clinical
	study from a		with			tool was	placements. No
	high secure		quantitative and			reported to	stratification by
	forensic		qualitative			have good face	school. No long
	psychiatric UK		analysis			validity,	term follow up
	hospital		(n=289)			concurrent and	of attitudinal
						construct	change. The
						validity, split-	authors report
						half reliability	findings from
						and high test re-	the high secure
						test correlation.	setting may not
							be generalisable
							to other
							psychiatric
							settings.

Thomson et al. (1999)	Medical students perspective of maximum security psychiatric care	UK	Survey of 3rd year medical students attending a secure hospital at the beginning and end of the academic year. Round 1 (n=134) and	Teaching medical students at a maximum security hospital	CROSS	Reports distribution of questionnaires to all students attending a maximum security setting to learn about psychiatry in secure	Questionnaires and modes of distribution were unreported. People with an interest in psychiatry were considered more likely to
			Round 2 (n=64)			environments as part of core psychiatry teaching.	return the questionnaire. The authors report attrition was due to fewer students being available in the summer term due to exams.
Kennedy and Wilkinson (2018)	A student selected component (or special study module) in forensic and legal medicine: design, delivery, assessment and	UK/Republic of Ireland	Expert report	Student selected components (SSM's) with discussion of topics in forensic psychiatry	DoCTRINE	The design and delivery of student selected components offers an opportunity to raise the profile of forensic psychiatry. Students can	Students are examined on quality and participation. The authors report a paucity of empirical evidence to justify evaluation

	evaluation of an optional module as an addition to the medical undergraduate core curriculum					develop research skills, presentation skills, engage in inter- professional working and cultivate practical competencies. Students highly rate enjoyment, structure, content, and learning opportunities.	methods. Student satisfaction ratings may not be indicative of attitudinal change. This study discussed topics in forensic psychiatry as part of a broad focus on forensic and legal medicine.
Sadoff (1974)	Survey of teaching programmes in law and psychiatry	US	Survey of University medical centres (n=83)	A teaching programme in law and psychiatry	CROSS	Work to investigate teaching time (undergraduate and postgraduate) and exposure to forensic psychiatry in medicine. Builds on the work of Stoller (1956).	Questionnaire and medical school characteristics unreported. Scant data reported. May not have relevance to current UK practice.

Stoller (1958)	The teaching of forensic psychiatry in American and Canadian medical centres	US	Survey of medical centres (n=58)	Teaching in forensic psychiatry	CROSS	Work to investigate undergraduate teaching time and exposure to forensic psychiatry.	Questionnaire and medical school characteristics unreported. Limited methods and scant data reported. May not have relevance to current UK practice.
Reiss and Chamberlain (2001)	A survey of forensic psychiatry teaching in UK medical schools	UK	Survey of UK medical schools (n=21)	Teaching in forensic psychiatry	CROSS	Authors contacted all UK medical schools (N=24) to capture the amount and methods of teaching in forensic psychiatry.	Questionnaire was unreported. No discussion of medical school characteristics to contextualise the reported variation in forensic psychiatry teaching.

# RUNNING HEAD: UNDERGRADUATES IN FORENSIC PSYCHIATRY