

Original Research

Clinicians' attitudes towards the undergraduate medical student syllabus in psychiatry

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Abstract

Objectives: To examine if the current taught undergraduate psychiatry syllabus at an Irish University relates to what doctors in psychiatry consider to be clinically relevant and important.

Methods: Doctors of different clinical grades were invited to rate their views on 216 items on a 10-point Likert scale ranging from '0 = not relevant' to '10 = very relevant'. Participants were invited to comment on topics that should be excluded or included in a new syllabus. Thematic analysis was conducted on this free-text to identify particular themes.

Results: The doctors surveyed rated that knowledge of diagnostic criteria was important for medical students. This knowledge attained high scores across all disorders with particularly high scores for a number of disorders including major depressive disorder (mean = 9.64 (SD = 0.86)), schizophrenia (mean = 9.55 (SD = 0.95)) and attention deficit hyperactivity disorder (Attention Deficit Hyperactivity Disorder (ADHD); mean = 9.26 (SD = 1.40)). Lower scores were noted for less frequently utilised management strategies (transcranial magnetic stimulation (mean = 4.97 (SD = 2.60)), an awareness of the difference in criteria for use disorder and dependence from psychoactive substances (mean = 5.56 (SD = 2.26)), and some theories pertaining to psychotherapy (i.e. Freud's drive theory (mean = 4.59 (SD = 2.42))).

Conclusions: This study highlights the importance of an undergraduate programme that is broad based, practical and relevant to student's future medical practice. An emphasis on diagnosis and management of major psychiatry disorders, and knowledge of the interface between mental health services, other medical specialities and support services was also deemed important.

Keywords: Anorexia nervosa; pharmacology; risk assessment; undergraduate medical syllabus

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Introduction

The World Federation for Medical Education (WFME), an international organisation linked to the World Health Organisation includes psychiatry as a core undergraduate speciality (WFME, 2003). The Medical Council (2008–2013) undergraduate standards are based on these guidelines. Mental health disorders are common among patients reviewed by doctors working in all branches of medicine, with approximately 15% of patients attending non-mental health specialist services diagnosed with a mental health disorder, with an even higher prevalence (approximately 20–30%) noted in patients attending general practitioners (Walton & Gelder, 1999). Consequently, it is evident that the specialty of psychiatry should form an important component of any medical undergraduate syllabus.

Certain key skills especially acquired whilst studying or working in psychiatry are important for all doctors, such as understanding

the concept of unity of body and mind and forming a therapeutic relationship with a patient (Walton & Gelder, 1999). As only 4–7% of graduating medical students pursue a career in psychiatry (Choudry & Farooq, 2017), it is optimal that medical students are provided with adequate training in psychiatry at an undergraduate level to equip them with the appropriate knowledge, skills and attitudes that they will require as they continue in their careers in whatever branch of medicine they choose (Salmon & Tombs, 2018).

There is some understanding from research to date, of the factors which influence a medical student's decision to pursue a career in psychiatry. A positive undergraduate attachment with an emphasis in the syllabus of holistic management strategies is one such factor (Walton & Gelder, 1999; Ahmed, 2012). Research to date has also highlighted the potential barriers to choosing psychiatry as a career choice including a perceived lack of scientific basis, a perceived poor public image of psychiatry and lack of respect for the discipline from other specialties (Walton & Gelder, 1999; Murphy *et al.* 2024).

A previous study led by the University of Galway (Byrne *et al.* 2020), detailed the delivery and assessment of psychiatry at

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undergraduate level in the six medical schools in Ireland. This study highlighted the significant level of similarity across various medical schools in terms of both teaching and assessment methods employed. Despite this broad-based understanding of the undergraduate psychiatry programme, there remains a gap in our understanding the specific components of the taught psychiatry syllabus. While there is no consistent agreement on what would constitute a gold standard psychiatry curriculum for medical students (Thomas *et al.* 2013; Karim *et al.* 2009), it should be one that is dynamic, and adaptable to developments in learning and changing demands of society (Ng *et al.* 2024). We aim to address this research deficit in this study- by consulting the clinicians directly involved in the teaching and assessment of undergraduate medical students in psychiatry. We set out to specifically determine which aspects of the current taught undergraduate psychiatry syllabus are deemed most important to clinicians of varying experience and ascertain if there are topics currently taught that are deemed not required for current medical students or topics that are not taught that should be included.

Method

Participants

All doctors working in psychiatry attached to both the University of Galway and associated teaching hospitals were invited to participate ($n = 94$). Clinicians ranged from those recently qualified to those of consultant grade and academic specialists. Data was attained pertaining to (1) clinical role (non-consultant hospital doctor or consultant), (2) years of experience (< 5 years, 5–10 years, > 10 years), (3) clinical area of work (general adult psychiatry, child and adolescent psychiatry, other speciality), and (4) age range (24–35 years, 36–45 years, >46 years). Ethical approval was attained prior to study commencement from the Galway University Hospitals Research Ethics Committee.

Procedure

Six members of the academic team providing small and large group-based teaching sessions to medical students at University of Galway (AL, PH, EL, EMcG, KM, BH) provided items on specific areas of the syllabus for inclusion in this study. These items covered 8 themes (mood disorders, psychosis, anxiety disorders, addictions, child and adolescent mental health, psychiatry of later life, psychiatry of intellectual disability, other aspects of psychiatry) encapsulating the entire undergraduate syllabus in psychiatry (see Table 2). These items were subsequently discussed over three meetings of approximately 90 minutes to ensure that (i) all themes were sufficiently covered, (ii) items were representative of these eight themes and (iii) that items were not replicated in other themes. These meetings were chaired by the Principal Investigator (BH) and any disputes regarding specific items were resolved via consensus.

Likert scales (0–10) were utilised to measure clinicians' perspective of the importance for undergraduate students to be knowledgeable about 216 items pertaining across the syllabus with a score of 0 meaning not at all relevant to 10 meaning very relevant. All items related to 8 themes (mood disorders, psychosis, anxiety disorders, addictions, child and adolescent mental health, psychiatry of later life, psychiatry of intellectual disability, other aspects of psychiatry): A questionnaire detailing these 216 items was disseminated online via the Survey Monkey platform. The questionnaire was developed based on the current syllabus and

several meetings amongst the authors prior to study commencement.

Participants were also invited to make free-text comments at the end of the questionnaire which included some open-ended questions to capture additional information ascertaining knowledge components perceived as important or unimportant for medical students.

Statistical analysis

Statistical analysis was performed using the Statistical Package for Social Sciences (SPSS) 27.0 for Windows (SPSS Inc., IBM, New York, USA). Descriptive analyses (frequencies, percentages, means and standard deviations) on key demographic and syllabus data were performed for both categorical and continuous variables, as appropriate. We utilised independent t-tests, or analysis of variance for continuous data. Syllabus data was examined to determine if normally distributed by visual inspection utilising histograms and by Q-Q plots and non-parametric testing were additionally undertaken as appropriate, with the Wilcoxon ranked test utilised (with median and interquartile ranges also attained) to compare data between groups (i.e. years of experience, age range). Chi Square (χ^2) test or Fisher's Exact test were additionally utilised as appropriate for some non-parametric data as appropriate.

Free-text data were examined and were open-coded based on the framework of the questionnaire and on any other themes unrelated to these questions that emerged. This data attained from free-texts was then grouped into themes by consensus of the researchers (AL, PH, BH), with three meetings held (of approximately 60 minutes duration) to discuss the individual free-text data and emergent themes.

Results

Demographic data pertaining to study participants are provided in Table 1. A total of 94 doctors were invited to participate and there were 33 respondents (35.1%). Of note 16 (48.5%) respondents were between 24 and 35 years of age, with 5–10 years of experience most common ($n = 11$, 33.3%). Twenty-two respondents were NCHDs (66.7%) and 17 individuals (51.5%) working in general adult psychiatry at the time of questioning. Twenty-two individuals (66.7%) had experience of teaching medical students, with greater experience in delivering small group-based teaching sessions evident ($n = 16$, 48.5%).

Table 2 provides data (score out of 10) pertaining to the importance respondents believed each of the 216 items was for medical students to be taught as part of their under-graduate syllabus. Knowledge of diagnostic criteria attained high scores across all disorders with particularly high scores evident for a number of disorders including major depressive disorder (mean = 9.64 (SD = 0.86)), schizophrenia (mean = 9.55 (SD = 0.95)) and attention deficit hyperactivity disorder (Attention Deficit Hyperactivity Disorder (ADHD); mean = 9.26 (SD = 1.40)). The importance of differentiating between different disorders was also noted. This included differentiating between an adjustment disorder and major depressive disorder (mean = 9.11 (SD = 1.16)), dementia and pseudo-dementia (mean = 9.07 (SD = 1.17)), dementia and delirium (mean = 9.78 (SD = 0.70)), and 'baby-blues' and post-natal depression (mean = 9.20 (SD = 1.30)).

Knowledge of pharmacological interventions attained higher scores (mean = 8.46 (SD = 0.83)), than other aspects of the syllabus (see Table 3). Of note, risk items within pharmacology

Table 1. Demographic data

	<i>n</i> (%)
Age (years)	
24–35	16 (48.5)
36–45	8 (24.2)
46–54	7 (21.2)
55–64	2 (6.1)
Experience (years)	
<5	9 (27.3)
5–10	11 (33.3)
10–20	5 (15.2)
20–30	6 (18.2)
>30	2 (6.1)
Clinical area (current)	
General adult psychiatry	17 (51.5)
CAMHS	6 (18.2)
POLL	5 (15.2)
Other*	5 (15.2)
Clinical role in team	
NCHD	22 (66.7)
Consultant	11 (33.3)
Teaching experience	
Large group based sessions	12 (36.4)
Small group based sessions	16 (48.5)

*Includes rehabilitation, intellectual disability and liaison psychiatry.
CAMHS, Child and Adolescent Mental Health Services; NCHD, Non-Consultant Hospital Consultant; POLL, Psychiatry of Later Life.

were associated with particularly high scores (see Table 2), including clinical signs of lithium toxicity (mean = 9.52 (SD = 0.97)) teratogenic effects of sodium valproate (mean = 9.50 (SD = 0.97)), the role of antipsychotics in metabolic syndrome (mean = 9.55 (SD = 0.83)), extra-pyramidal side effects (mean = 9.55 (SD = 0.74)), and neuroleptic malignant syndrome (mean = 9.52 (SD = 0.83)). Several pharmacological strategies were associated with lower scores including augmentation strategies for clozapine (mean = 6.71 (SD = 2.19)) and the use of clomipramine for treating obsessive compulsive disorder (OCD) (mean = 6.44 (SD = 1.99)). Other aspects associated with high scores from respondents included knowledge of the risk of psychosis secondary to cannabis misuse (mean = 9.69 (SD = 0.66)), behavioural strategies for managing delirium (mean = 9.56 (SD = 0.97)), the mini-mental state examination (mean = 9.63 (SD = 0.88)), physical sequelae of eating disorders (mean = 9.50 (SD = 1.14)) and criteria for detention under the Mental Health Act (MHA) 2001 (mean = 9.27 (SD = 1.46)).

Several items were associated with lower scores from respondents including some less frequently utilised management strategies (transcranial magnetic stimulation (mean = 4.97 (SD = 2.60)) and an awareness of the difference in criteria for use disorder and dependence from psychoactive substances (mean = 5.56 (SD = 2.26)). Theories pertaining to psychotherapy (i.e. Freud's drive theory (mean = 4.59 (SD = 2.42)), Erikson's psychosocial theory (mean = 4.81 (SD = 2.43)) and Piaget's cognitive theory of development (mean = 5.33 (SD = 2.54)) and the utilisation of some psychometric instruments (i.e. the HCR-20 – mean 5.81 (SD = 2.02)) were associated with particularly low scores. Of note neuroimaging findings across all categories were deemed to have a low level of requirement for medical students (Mean = 5.80, SD = 1.72)) (Tables 2 and 3).

The only topic where consultant psychiatrists differed to NCHDs was the monoamine theory of depression, with consultant

psychiatrists placing more emphasis on the importance of this item (Mean = 8.50 (1.84) v 6.10 (2.74), $t = 2.88$, $p = 0.008$).

Nineteen participants provided 44 comments for the qualitative analysis. Four themes emerged from same (see Box 1). The first pertained to knowledge of service provision including referral pathways, national clinical programmes, multidisciplinary team working and other organisations involved in social protection (i.e. TUSLA). The second theme described clinical areas that students should have a greater knowledge, particularly if they practice in a non-psychiatry discipline post-qualification and included the physical management of anorexia nervosa, the application of the Mental Health Act 2001, knowledge on how to conduct a capacity assessment and the acquisition of knowledge pertaining to traumatic experiences when taking a clinical history and how this might relate to a patient's clinical presentation. The third theme described areas of knowledge currently taught to medical students that were viewed either as outdated or beyond the scope of medical students (some psychometric rating scales (i.e. AUDIT), medications that are now rarely employed (Monoamine Oxidase Inhibitors (MAOIs)) and some aspects of psychotherapy (Freud's theories of psychoanalysis)). The final theme related to the importance of empathy with a patient and awareness of skills such as listening, ability to be open-minded when interviewing a patient and awareness of recovery principles.

Discussion

This is the first study to date to examine in detail, clinicians' views on the taught psychiatry syllabus at an undergraduate medical school. This study is timely as it coincides with an undergraduate curriculum review process at University of Galway. The undergraduate psychiatry curriculum has varied across Universities in Ireland to date, but it is likely that we will follow the United Kingdom in standardising a core curriculum across universities (General Medical Council, 2009).

The results of this study highlight a number of key findings. Respondents consider diagnostic criteria of mental disorders as very important- major depressive disorder, schizophrenia and attention deficit hyperactivity disorder were rated particularly highly. Of note, respondents in free-text data highlighted that if students practice in a non-psychiatry discipline post-qualification, they should have a good knowledge of key clinical areas, such as the identification of common mental health disorders. This is in keeping with findings internationally across the literature (Kallivayalil, 2012; Chappel, 1993).

The overall category of the syllabus which obtained the highest score was pharmacology (mean = 8.46). Within this category, respondents placed an emphasis on the importance of developing competency in the management of certain risk categories within pharmacology e.g. lithium toxicity, teratogenicity associated with sodium valproate, metabolic effects of antipsychotics, extrapyramidal side effects and neuroleptic malignant syndrome. This again links with the aforementioned theme from the qualitative analysis (areas to attain greater knowledge). Patients will not always present to psychiatry, and it is important to be able to identify and manage medical emergencies, irrespective of a student's ultimate area of clinical practice (Chen *et al.* 2024).

Respondents highlighted several key clinical areas which commonly present at the medical-psychiatry interface (i.e. strategies for managing delirium and knowledge of the physical sequelae of anorexia nervosa) that require greater knowledge at an under-graduate level. These points were additionally highlighted in

Table 2. Ratings of different aspects of the psychiatry syllabus

Syllabus category	Mean (SD)
Mood disorders	
Diagnostic criteria of a major depressive episode	9.64 (0.86)
Differences between mild, moderate and severe depressive episodes	8.64 (1.60)
Differences between typical and atypical depressive episodes	7.24 (1.75)
Differences between a manic and hypomanic episode	8.67 (1.36)
Criteria for rapid cycling bipolar disorder	9.00 (1.16)
Differences between bipolar disorder and schizoaffective disorder	7.67 (1.93)
Principle neuroimaging findings in recurrent depressive disorder	4.64 (2.33)
Principle neuroimaging findings in bipolar disorder	4.82 (2.37)
Indications for electroconvulsive therapy	8.76 (1.64)
Adverse effects of electroconvulsive therapy	8.52 (1.94)
Transcranial magnetic stimulation (indications and basic methods)	4.97 (2.60)
Cognitive behaviour therapy principles for depression	8.70 (1.90)
Negative automatic thoughts in depressive disorders	7.73 (2.49)
Diagnostic criteria of cyclothymia	6.21 (2.38)
Screening tools for mood disorders (e.g. HDRS, BDI, MADRS, YMRS)	7.00 (1.98)
Pharmacology of mood disorders	
Mono-amine theory in depressive disorders	6.87 (2.71)
Mechanism of action of common antidepressants (SSRIs, SNRIs, TCAs)	8.48 (2.01)
Dietary restrictions with monoamine oxidase inhibitors (MAOIs)	7.68 (2.33)
Major clinical trials in depression such as STAR-D	7.26 (2.35)
Treatment strategies for resistant depressive disorders	8.23 (1.88)
Antidepressant prescribing in pregnancy	9.13 (1.34)
Antidepressant prescribing in lactating women	8.97 (1.40)
Rapid tranquilisation in mania or acute psychosis	8.52 (1.65)
Mechanism of action of lithium	7.94 (1.90)
Lithium plasma levels ranges	8.68 (1.64)
Clinical signs of lithium toxicity	9.52 (0.97)
Causes of lithium toxicity	9.29 (1.07)
Teratogenic effects of sodium valproate	9.50 (0.97)
Use of antidepressants in bipolar disorder	9.13 (0.99)
Use of lamotrigine in bipolar disorder	7.97 (1.52)
Use of antipsychotics as mood stabilisers	8.90 (1.30)
Psychosis	
DSM / ICD criteria of schizophrenia	9.55 (0.95)
DSM / ICD criteria of delusional disorder	8.79 (1.84)
Schneider's first rank symptoms	8.00 (2.00)
Difference between a primary and secondary delusion	6.69 (2.14)
Difference between second- and third-person auditory hallucinations	7.76 (1.73)
Formal thought disorder	9.10 (1.37)
Negative symptoms in schizophrenia	9.45 (0.95)
Cognitive symptoms in schizophrenia	8.72 (1.25)
Sub-types of schizophrenia (e.g. hebephrenia, catatonic)	6.96 (2.30)
Folie a Deux	6.03 (2.71)
Delusions of misidentification (e.g. Capgras syndrome, Fregoli syndrome)	6.66 (2.47)
De Clerambault's' syndrome	6.34 (2.54)
Othello syndrome	6.62 (2.46)
Cannabis use and risk of psychosis	9.69 (0.66)
Genetic markers of psychosis	7.10 (2.24)
Principle findings of Genome Wide Association Study	6.14 (2.55)
Principle neuroimaging findings in schizophrenia	6.97 (2.32)
Cognitive remediation therapy	6.48 (1.96)
Dopamine pathways in the brain	8.17 (1.79)
Predictors of good outcome with psychosis	8.55 (1.59)
Pharmacology of psychotic disorders	
First generation depot antipsychotic medications	9.10 (1.11)
Second generation depot antipsychotic medications	7.48 (2.08)
Major clinical trials in psychosis such as CATIE	9.55 (0.83)
Role of antipsychotic medications in metabolic syndrome	9.55 (0.74)
Extra-pyramidal side effects	9.52 (0.83)
Neuroleptic malignant syndrome	9.24 (1.12)
Indications for clozapine therapy	7.55 (2.23)
Treatment initiation regime for clozapine	9.45 (0.99)
Principle adverse effects of clozapine	6.71 (2.19)
Augmentation agents for clozapine	
Addictions	
ICD-10 diagnostic criteria for dependence syndrome	8.78 (1.55)
Difference between ICD and DSM criteria for dependence / use disorder	5.56 (2.26)

(Continued)

Table 2. (Continued)

Syllabus category	Mean (SD)
Differences between withdrawal states of psycho-active substances	8.26 (1.61)
Clinical features of amphetamine withdrawal state	7.48 (1.81)
CAGE questionnaire	8.19 (2.24)
AUDIT questionnaire	7.78 (2.04)
MAST questionnaire	6.48 (2.61)
Biomarkers of alcohol misuse	8.44 (1.78)
Alcoholic Hallucinosis	8.81 (1.44)
Management of alcohol withdrawal state	9.78 (0.85)
Management of benzodiazepine withdrawal state	9.44 (0.85)
Management of opioid withdrawal state	8.67 (1.59)
Diagnostic criteria of foetal alcohol syndrome	6.44 (2.42)
Neuroimaging features of Wernicke's encephalopathy	5.81 (2.20)
Diagnose Wernicke's encephalopathy	8.41 (1.76)
Treatment of Wernicke's encephalopathy	8.70 (1.35)
Disulfiram treatment and adverse effects	7.15 (1.88)
Pharmacological Prevention (i.e. nalmefene, naltrexone, acamprosate)	6.96 (1.97)
Concepts of Alcoholics Anonymous 12 steps programme	6.44 (1.93)
Research studies linking cannabis use to schizophrenia	7.85 (1.92)
Anxiety disorders	
Differences between social phobia and agoraphobia	7.62 (0.96)
Diagnostic criteria for panic disorder (ICD / DSM)	8.23 (1.61)
Diagnostic criteria for generalised anxiety disorder (GAD)	8.62 (1.53)
Diagnostic criteria for post-traumatic stress disorder (PTSD)	8.78 (1.37)
Diagnostic criteria for obsessive compulsive disorder (OCD)	8.77 (1.31)
Screening tools for anxiety disorders (e.g. YBOCS, BAI)	6.73 (2.16)
Tourette's syndrome	6.96 (1.99)
Epidemiology of common functional disorders	7.00 (1.84)
Principle neuroimaging findings in obsessive compulsive disorder	5.07 (2.17)
Principle neuroimaging findings in post-traumatic stress disorder	5.04 (2.07)
Clinical features of an adjustment disorder	8.59 (1.37)
Differences between an adjustment disorder and depressive episode	9.11 (1.16)
Clinical features of somatisation disorder	8.52 (1.48)
Clinical features of hypochondriacal disorder	8.30 (1.59)
Clinical features of dissociative disorder	8.30 (1.75)
Difference between conversion and dissociative disorders	7.59 (2.29)
Principles of management of common functional disorders	8.04 (1.70)
Factitious disorders	7.70 (1.73)
Differences between malingering and factitious disorder	7.33 (1.90)
Cognitive behaviour therapy principles for generalised anxiety disorder	8.44 (1.50)
Anxiety management techniques	8.67 (1.64)
Diagnostic criteria of chronic fatigue syndrome	7.30 (1.92)
Use of clomipramine in treating OCD	6.44 (1.99)
Behaviour therapy techniques for treating OCD	7.78 (1.65)
Behaviour therapy techniques for treating phobic disorders	7.78 (1.48)
Neurosurgical techniques for treatment resistant OCD	4.89 (2.47)
Eye Movement desensitisation reprocessing (EMDR) for PTSD	5.56 (2.34)
Child and adolescent mental health	
Diagnostic criteria for attention deficit hyperactivity disorder (ADHD)	9.26 (1.40)
Differences between stimulant and non-stimulant treatments	8.48 (1.78)
Comorbid conditions associated with ADHD	8.07 (1.84)
Findings of MTA study in ADHD (Multimodal Treatment for ADHD)	6.19 (2.66)
Common ADHD diagnostic tools – Connors scale	7.41 (2.17)
Development stages of childhood	8.12 (1.90)
Difference between typical and atypical development in childhood	7.78 (1.72)
Freud's drive theory of development	4.59 (2.42)
Erikson's psychosocial development theory	4.81 (2.43)
Piaget's cognitive development theory	5.33 (2.54)
Diagnostic criteria for autism spectrum disorder (ASD)	8.89 (1.50)
Differentiate between Asperger's syndrome and childhood autism	6.67 (2.79)
Common ASD instruments (e.g. ADOS, ADI, 3Di)	6.67 (2.40)
Somatic syndrome of childhood depression	7.44 (2.19)
Diagnostic criteria for oppositional defiant disorder	8.42 (1.84)
Theory of mind	6.70 (2.79)
Use of selective serotonin reuptake inhibitors in childhood depression	8.11 (1.91)
Differences in presentation of psychosis in children compared to adults	8.33 (1.64)
Duration of untreated psychosis	8.37 (2.00)
Classification of attachment disorders of childhood	7.48 (1.89)
Strange situation procedure	5.67 (1.84)
Junior Marzipan guidelines for management of anorexia nervosa	8.19 (1.80)

(Continued)

Table 2. (Continued)

Syllabus category	Mean (SD)
Clinical features of anorexia nervosa	9.59 (0.97)
Criteria for inpatient treatment of anorexia nervosa in childhood	8.04 (1.83)
Family based treatment model for anorexia nervosa	7.22 (1.91)
Features of sibling rivalry disorder	4.78 (2.29)
Features of selective mutism	6.74 (1.79)
Strategies for treating nocturnal enuresis	8.30 (2.00)
Roles of multidisciplinary members in a CAMHS team	7.93 (2.00)
Difference in assessment procedures in CAMHS vs. adult psychiatry	
Psychiatry of later life	
Differences between dementia and pseudo-dementia	9.07 (1.17)
Differences between dementia and delirium	9.78 (0.70)
Pathological features of Alzheimer's disease	8.56 (1.72)
Genes implicated in Alzheimer's disease	6.22 (2.12)
Clinical features of Lewy Body dementia	8.70 (1.79)
Pathological features of Lewy Body dementia	7.48 (2.12)
Clinical features of frontotemporal dementia	8.78 (1.70)
Clinical features of Creutzfeldt Jacob disease	7.52 (1.99)
Clinical features of Huntington's disease	8.07 (2.07)
Genetic aetiology of Huntington's disease	7.00 (2.66)
Diagnostic criteria of Binswangers dementia	6.11 (1.78)
Mini-mental state examination	9.63 (0.88)
Montreal cognitive assessment	9.00 (1.57)
Frontal lobe testing	7.81 (1.36)
Parietal lobe testing	6.44 (1.45)
Capacity assessments for individuals with dementia	8.52 (1.89)
Functional activities questionnaires for elderly people	6.59 (2.15)
Neuroimaging findings in Alzheimer's Disease	7.19 (1.92)
Use of PET and SPECT scans for diagnosing dementia	7.11 (2.28)
Use of geriatric depression scale	7.67 (2.08)
Management strategies	
Use (indications and side effects) of acetylcholinesterase inhibitors	8.22 (1.87)
Use (indications and side effects) of NMDA antagonists (e.g. memantine)	7.78 (2.03)
Use (indications and side effects) of galantamine	9.67 (0.78)
Pharmacological strategies for managing delirium	9.56 (0.97)
Behavioural strategies for managing delirium	9.59 (0.75)
Principles of psychotropic prescribing in the elderly	7.85 (1.77)
Aetiology of psychosis in the elderly	7.85 (1.90)
Support services for elder abuse	
Psychiatry of intellectual disability	
Intelligence quotients ranges associated with intellectual disability	8.81 (1.30)
Capacity assessments for people with intellectual disability	8.22 (1.76)
Prevalence of schizophrenia for people with intellectual disability	7.30 (1.90)
Prevalence of mood disorders for people with intellectual disability	7.44 (1.91)
Prevalence of anxiety disorders for people with intellectual disability	7.30 (1.90)
Prevalence of personality disorders for people with intellectual disability	6.52 (2.12)
Prevalence of dementia in Down's syndrome	8.04 (1.91)
Epidemiology of dementia in Down's syndrome	7.11 (2.01)
Challenging behaviour management in intellectual disability	8.78 (1.60)
Other aspects of psychiatry	
Difference between 'baby blues' and post-natal depression	9.20 (1.30)
Risk factors associated with post-natal depression	8.85 (1.62)
Subtypes of puerperal psychosis	6.69 (1.85)
Use of Edinburgh post-natal depression scale	7.35 (2.23)
Diagnostic criteria of binge eating disorder	7.77 (1.95)
Differences between anorexia and bulimia nervosa	8.92 (1.29)
Physical sequelae of eating disorders	9.50 (1.14)
Principles of CBT for eating disorders	7.46 (1.61)
Pharmacological management (e.g. SSRIs) of eating disorders	7.92 (1.77)
Haematological anomalies of eating disorders	9.35 (1.13)
Criteria of when to admit a patient involuntarily with anorexia nervosa	8.42 (1.50)
Assessment of risk of violence	8.69 (1.46)
Assessment of risk of suicide	9.58 (1.10)
The historical clinical risk (HCR)-20 risk assessment tool	5.81 (2.02)
Gender differences in completed suicide and suicide attempts	7.50 (2.10)
Social factors associated with suicide (e.g. employment, homelessness) Methodology utilised in suicide (violent v. non-violent methods)	8.31 (1.87)
DSM clusters of personality disorders	7.96 (1.93)
Diagnostic criteria of borderline personality disorder	8.77 (1.51)
Diagnostic criteria of antisocial personality disorder	8.88 (1.40)
Diagnostic criteria of histrionic personality disorder	8.19 (1.77)
Diagnostic criteria of narcissistic personality disorder	7.04 (1.76)

(Continued)

Table 2. (Continued)

Syllabus category	Mean (SD)
Diagnostic criteria of Schizoid Personality Disorder	6.96 (1.76)
Diagnostic criteria of Schizotypal Personality Disorder	7.12 (1.71)
Diagnostic criteria of Paranoid Personality Disorder	6.96 (1.78)
Diagnostic criteria of Anxious-Avoidant Personality Disorder	7.15 (1.83)
Diagnostic criteria of anankastic personality disorder	7.38 (1.84)
Gender dysphoria diagnostic criteria	7.27 (1.82)
Criteria for involuntary detention under MHA 2001	7.32 (2.23)
Process for detention of voluntary inpatient under MHA 2001	9.27 (1.46)
Process for detention of individual in community under MHA 2001	8.50 (1.82)
Psychotherapy – additional points	8.68 (1.80)
Dialectical behaviour therapy (DBT) concepts	7.58 (1.86)
Mentalisation based therapy concepts	6.46 (1.73)
Schema focused therapy concepts	5.42 (1.94)
Basic principles of psychoanalysis (e.g. id, ego, analysis of dreams)	5.73 (1.87)
Principles of psychodynamic psychotherapy	5.92 (1.96)
The most common psychological defence mechanisms	6.73 (2.22)
Transference and counter-transference	7.48 (1.83)
Therapeutic factors in group therapy	5.85 (1.99)

AUDIT; BAI, Beck's Anxiety Inventory; BDI, Beck Depression Inventory; CATIE; CBT, Cognitive Behaviour Therapy; DBT, Dialectical Behaviour Therapy; DSM, Diagnostic and Statistical Manual; EMDR, Eye Movement Desensitisation Reprocessing; GAD, Generalised Anxiety Disorder; HCR, Historical Clinical Risk; HDRS, Hamilton Depression Rating Scale; ICD, International Classification of Diseases; MAOI, Monoamine Oxidase Inhibitor; MADRS, Montgomery and Asberg Depression Rating Scale; MAST; MHA, Mental Health Act; OCD, Obsessive Compulsive Disorder; PTSD, Post-Traumatic Stress Disorder; SNRI, Serotonin and Noradrenaline Reuptake Inhibitor; SSRI, Selective Serotonin Reuptake Inhibitor; STAR-D; TCA, Tricyclic Antidepressant; YBOCS, Yale Brown Obsessive Compulsive Scale; YMRS, Young Mania Rating Scale,.

Table 3. Categories of the syllabus

Category	Mean (SD)
Mood disorders	8.01 (1.00)
Psychotic disorders	7.99 (1.05)
Anxiety disorders	7.46 (1.15)
Child and Adolescent psychiatry	7.39 (1.27)
Addictions	7.77 (1.03)
Psychiatry of later life	8.08 (1.06)
Intellectual disability	7.73 (1.39)
Personality disorders	7.57 (1.39)
Pharmacology	8.46 (0.83)
Psychotherapy	7.57 (1.39)
Psychometric Instruments	7.39 (1.08)
Neuroimaging findings	5.80 (1.72)

the qualitative data as areas requiring greater knowledge. These areas should be considered in any future syllabus planning—this study's findings highlight the importance that future doctors are competent in the identification and management of these.

Respondents emphasised the importance of being able to differentiate between various disorders (i.e. adjustment disorder vs. major depressive disorder, dementia vs. pseudo-dementia, dementia vs. delirium and 'baby blues' vs. post-natal depression). Perinatal psychiatry was highlighted in the above theme from the qualitative analysis (areas to attain greater knowledge). Perinatal psychiatry is a sub-speciality in psychiatry of growing importance with all level 3 hospitals in Ireland having this speciality available (HSE Mental Health Services, 2017).

Not all mental disorders were considered important to differentiate between however—the differentiation between psychoactive substance harmful use disorders vs. dependence obtained a much lower score in terms of importance for

undergraduate medical students (mean = 5.56). Of note, the Diagnostics and Statistics Manual (DSM) 5 does not differentiate between harmful use and dependence unlike the International Classification of Diseases (ICD) 11 (Grant & Chamberlain, 2016). Respondents overall rated knowledge of addictions as an important part of the syllabus (mean = 7.77). However, psychometric rating scales such as AUDIT and CAGE emerged in the qualitative data as areas of syllabus not viewed as imperative for undergraduate medical students. Consequently, whilst knowledge of addictions was noted to be important, consideration is required to the detail necessary for undergraduate medical students.

Two further themes emerged from the qualitative data analysis. Firstly, the importance of service provision in psychiatry and that students gain an understanding of how the multidisciplinary team functions and how psychiatry is aligned with other services. For example, one respondent highlighted the four national clinical programmes (self-harm/suicide, eating disorders, early intervention in psychosis and ADHD in adults) (Health Service Executive, 2024). While the taught medical syllabus addresses key learning points in these areas, these findings reinforce the importance of the psychiatry clinical attachment, where a lot of this learning and understanding occurs. The importance of early clinical exposure in Psychiatry for medical students has been well articulated in the literature (Brown *et al.*, 2016; Pokrzywko *et al.* 2019), and our study findings demonstrate how much our clinical colleagues value this. The second theme focused on empathy and the holistic management of patients. An understanding of confidentiality, boundary setting and issues such as stigma were particularly highlighted as areas which a medical student should encounter and consider during their undergraduate training.

There were several key areas of the syllabus which respondents considered less important in medical student education. Management strategies not utilised in routine clinical practice such as transcranial magnetic stimulation was not considered important. Similarly, some areas of pharmacology utilised in routine clinical practice in psychiatry but not in a general practice setting were considered less important at undergraduate level,

e.g. augmentation strategies for clozapine. One respondent also considered knowledge of older medications less important, citing MAOIs, which again would only be undertaken in a mental health setting. Neuroimaging findings across all categories were considered of less importance also for students and attained the lowest category of all categories in the psychiatry syllabus (mean = 5.80). These findings suggest that clinicians working in psychiatry believe that medical students should be educated in practical aspects of psychiatry with the aim of ensuring basic competency, rather than theoretical foundations or uncommonly used treatments which academics might consider useful for identifying high performing students.

Psychotherapy overall was considered important (mean = 7.57) however certain components were deemed less important- e.g. Freud's drive theory, Erikson's psychosocial theory and Piaget's cognitive theory of development. This is supported by one of the themes emerging from the qualitative analysis where the above aspects of psychotherapy were deemed out-dated or (as with neuroimaging findings or augmentation strategies in psychosis), beyond the scope of undergraduate medical students. Interestingly, one respondent outlined how students should understand how adverse child experiences can impact future mental health, but we could infer from this data that the detail of certain theories of development is potentially less relevant in gaining this understanding. Frank *et al.* 1987 explored the benefits of psychotherapy skills training for medical students- not just in terms of enhancing their experience of Psychiatry, but the generalisation of such skills to future non-psychiatric patient interaction. Any future curriculum planning must therefore appreciate the benefits of psychotherapy teaching, but be cognisant of how to integrate this, in keeping with the student's overall level of knowledge and understanding.

This study is associated with a number of limitations. Firstly, this study only evaluated doctors' views who worked in psychiatry. It has been argued that non-specialists may be better placed to advise on what should be included in an undergraduate medical syllabus (Salmon & Tombs, 2018). Consequently, future studies will seek the views of medical students on completion of their psychiatry training and doctors working in primary care. Secondly, although there was a range of doctors with different levels of experience working in different areas of psychiatry, future studies might wish to include more participants in psychiatry sub-specialities. While a total of 94 doctors were invited to participate in this study, 33 doctors responded. It is possible that those who responded had a pre-existing level of interest in medical education. As such, it is not possible to rule out the potential for selection bias within this subject sample. Finally, whilst 216 items of the psychiatry syllabus were examined, some aspects were not included. However, a free-text section was included which allowed for the inclusion of other potential topics.

In conclusion, respondents believed that many components of the current psychiatry syllabus should remain in place, with a particular emphasis on diagnostic criteria and pharmacological and psychotherapeutic management of common mental health disorders, and risk management both in terms of risk of harm to patients and risks related to pharmacological management of patients. This study highlights the importance of an undergraduate programme that is broad based, practical and relevant to each student's future medical practice with an emphasis suggested on

the medical-psychiatry interface and knowledge of the interface between mental health services and other support services such as Tusla.

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