

RESEARCH BRIEF

UK Pharmacy Students' Opinions on Mental Health Conditions

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Objective. To determine future pharmacists' opinions on mental health conditions and investigate the influence of gender.

Methods. Final-year Master of Pharmacy students at Queen's University Belfast completed a paper-based questionnaire. Section A of the questionnaire was adapted from a United Kingdom public opinion questionnaire on mental health. Section B gathered non-identifiable demographic data. Descriptive statistics were undertaken. Mann-Whitney U and Chi-square tests were used for gender comparisons.

Results. An 89% (97/109) response rate was obtained. Most survey respondents considered that pharmacological and non-pharmacological measures were beneficial in the management of mental health conditions (89% and 96%, respectively) and that people with mental illness had the same rights to jobs as anyone else (82%). However, only 57% of the respondents felt confident discussing mental health issues with patients and 36% deemed university training to be satisfactory. Males were more likely than females to "agree strongly" or "agree slightly" that they would not want to live next door to someone who has been mentally ill.

Conclusion. While some positive opinions were evident, more work is needed to prepare future pharmacists for roles within mental health care teams.

Keywords: mental health, opinions, pharmacy students, questionnaire

INTRODUCTION

The National Institute for Health and Care Excellence (NICE) states that common mental health disorders such as depression, generalized anxiety disorder, panic disorder, obsessive-compulsive disorder, post-traumatic stress disorder and social anxiety disorder may affect up to 15% of the United Kingdom (UK) population.¹ In the United States, the prevalence of adults with a mental health illness in 2015 was 17.9%, according to the National Institute of Mental Health (NIMH).² However, because many individuals do not necessarily seek medical help, mental health conditions can remain undiagnosed and underreported. Although a few mental health problems may be temporary and resolve with self-care measures, in many instances when an individual delays or avoids medical care, serious consequences can arise.³⁻⁶ While the severity of individual mental health disorders varies, all disorders can result to significant long-term concerns. For example, depression is associated with high rates of morbidity and mortality and is the most common disorder contributing to suicide.¹

Research investigating attitudes toward mental illness has been conducted at population levels among the general public (such as in Australia, UK and US) and media campaigns strive to raise awareness and aim to dispel myths.⁷⁻¹⁰ Studies have also been conducted involving medical, nursing and pharmacy university students' knowledge of mental health and their attitudes toward patients with mental illnesses.¹¹⁻²² Unfortunately, views held by future health care professionals toward mental illness have not always been appropriate. Bell and colleagues' questionnaire study conducted in six countries (Australia, Belgium, Estonia, Finland, India and Latvia) revealed that pharmacy students' attitudes toward people with mental health illnesses (schizophrenia and severe depression) was sub-optimal.¹⁸

The aim of this study was to investigate the opinions on mental health of Level 4 (ie, the final year of the degree program) pharmacy students at Queen's University Belfast (QUB). Specifically, the objectives were to investigate their attitudes toward mental health conditions and determine whether gender was a factor.

To the best of the authors' knowledge, there has been limited work in this area involving pharmacy students particularly in the UK and no work specifically conducted in Northern Ireland. This research adds to the existing

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body of literature by providing baseline data from a UK context. With the growing number of people affected by mental health conditions, it is important to ascertain pharmacy students' opinions on mental health conditions because they will be advising and counseling patients in their role as future health care professionals.¹ The findings of this study will inform future teaching of the subject matter. From a pharmacy education standpoint, "developing a clinical knowledge base that culminates in the demonstrated ability of learners to apply knowledge to practice" and preparing students "to provide patient-centered collaborative care" are stipulations in the 2016 Accreditation Standards of the Accreditation Council for Pharmacy Education (ACPE).²³ These standards are also reiterated in the UK Master of Pharmacy (MPharm) accreditation standards.²⁴

METHODS

Ethical approval for this study was obtained from the School of Pharmacy Ethics Committee at QUB. All Level 4 MPharm students currently enrolled at QUB were invited to participate in the study. Level 4 students were selected because they had been taught about mental health conditions prior to conducting the study (unlike the other year groups) and because they were going to graduate soon and begin their career.

Data were collected by means of a paper-based self-completed questionnaire. The questionnaire was developed with reference to the wider literature and had two sections.⁷⁻¹⁸ Section A was adapted from the UK public opinion questionnaire, "Attitudes to Mental Illness."⁸ This section consisted of attitudinal statements that were measured using a five-point Likert scale ranging from strongly agree to strongly disagree, and on occasion, a seven-point scale that ranged from very comfortable to very uncomfortable. The Attitudes to Mental Illness questionnaire was developed and funded by the Department of Health and includes items from the "Community Attitudes toward the Mentally Ill (CAMI)" scale and the "Opinions about Mental Illness" scale.⁸ Statements about confidence in counseling patients on mental illness and training provision within the degree program were also added. Section B was composed of statements related to demographic information that were non-identifiable.

To maximize response rates, most of the questions were in a close-ended question format.²⁵ The questionnaire was piloted with 10 postgraduate pharmacy students in November 2016. One minor modification was made wherein the wording for one question was modified to clarify that respondents may choose as many options as they wished.

The questionnaire was distributed in class during the first semester in December 2016. In January 2017,

the responses from the completed questionnaires were coded and entered into a customized database developed on IBM SPSS v22 (SPSS Inc., Chicago, IL) for statistical analysis. Data analysis was in the form of descriptive statistics. Interpolated median scores were calculated on the rating questions. Studies by Alfaris and colleagues' and Poreddi and colleagues' revealed differences in opinions based on gender.^{12,14} For this questionnaire, comparisons between gender responses were measured using Mann-Whitney U and Chi-square tests with significance set at $p < .05$ *a priori*. The Mann-Whitney U test was performed on the ordinal data and the Chi-square test was performed on the categorical (nominal) data.

RESULTS

A response rate of 89% (97 out of 109) was obtained; 40% (39) were males and 60% (58) were females. The mean age of the year group was 22.8 years. Prior to the start of the MPharm degree program, 83% (80) of students had received their education in the UK and Ireland, 10% (10) from Asia, and the remaining 7% (7) did not disclose this information.

Students were asked about the person closest to them who has or had some kind of mental illness. They were instructed to select one option from a list. The top three most popular selections were: a friend 25% (24), no one known 24% (23), and immediate family (spouse/child/sister/brother/parent) 19% (18). Table 1 outlines all the results for this question.

In relation to the hypothetical statement about how likely they would be to go to a doctor for help if they felt they had a mental health problem, the interpolated median was 3.7 (maximum score of 5 = very likely, $n = 97$).

In another hypothetical statement, students were asked to rate their comfort level in talking to a friend or

Table 1. The Closest Person to the Student who has (or had) Some Kind of Mental Illness ($n = 97$), Ranked by Most Popular to Least Popular

Categories of People	Students who Selected the Option, n (%)
Friend	24 (25)
No one known	23 (24)
Immediate family (spouse/child/sister/brother/parent)	18 (19)
Other family (uncle/aunt/cousin/grandparent, etc)	12 (12)
Acquaintance or work colleague	6 (6)
Self	5 (5)
Other	5 (5)
Partner	4 (4)

family member about their mental health and how it affected them. The interpolated median was 4.4 (maximum score of 7=very comfortable, $n=97$). Using the same scale, students were asked to rate how comfortable they would feel talking to a current or prospective employer about their mental health. The interpolated median for this statement was 2.1 ($n=97$).

Students indicated their level of agreement for statements about future relationships (maximum score of 5=strongly agree, $n=97$). The interpolated medians for each were: I would be willing to continue a relationship with a friend who developed a mental health problem (4.9), live with someone with a mental health problem (4.5), and work with someone with a mental health problem (4.7).

When asked about the number of people in the UK with a mental health problem at some point in their lives, only 35 (36%) respondents chose the correct answer (1 in 4 people). Students were also asked if they considered stress, grief, depression and drug addiction as types of mental health conditions (Figure 1). Twenty-three (24%) respondents thought a person was mentally ill if the person was incapable of making simple decisions about his/her life. Thirty-four (35%) respondents said a mentally ill person could not be held responsible for his/her own actions.

Table 2 outlines findings about the attitudinal statements. While the majority (93%) of respondents considered that virtually anyone could become mentally ill, about one-fifth (22%) thought there was something about people with mental illness that made it easy to tell them apart from “normal” people. Positive opinions were held by most with regard to people with mental illness having

the same rights to jobs as anyone else (82%) and not being excluded from holding public office positions (74%). Most thought that pharmacological and non-pharmacological measures were beneficial in the management of mental health conditions (89% and 96%, respectively) and that services should typically be provided via community-based facilities, if possible (86%). However, just over half (57%) felt confident talking about mental illness with patients and only 36% felt that their university training was adequate. Six out of every 10 respondents knew what advice to give a friend with a mental health problem so that the friend could get professional help. In relation to the statement “I would not want to live next door to someone who has been mentally ill,” males were more likely than females to strongly agree or slightly agree (21% vs 10%), $p=.01$. However, given the small numbers involved, this result should be interpreted with caution. Females were more likely to strongly disagree or slightly disagree that people with mental health problems should be excluded from taking public office (83%) versus men (61%), $p=.01$.

Lastly, when asked about whether people with mental illness experienced stigma and discrimination nowadays because of mental health problems, 53% selected “yes, a lot” and 47% selected “yes, a little.”

DISCUSSION

Unlike in other studies, gender played a limited role in this study as there were few significant differences between male and female responses.^{12,14} Only 5% of students reported having a mental illness. This is a much lower percentage compared to studies by Goodwin and colleagues on first- year undergraduate university students, Alfaris and colleagues on health professions’

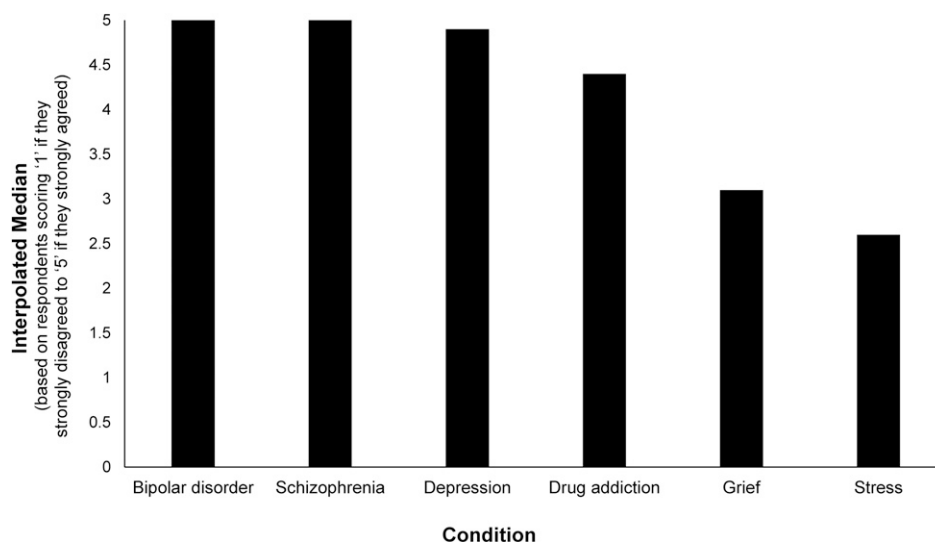


Figure 1. Respondents' Views on Various Conditions Being Types of Mental Health Conditions (N=97).

Table 2. Respondents' Views on Various Attitudinal Statements Related to Mental Illness (N=97, unless otherwise stated)

	Strongly Agree n (%)	Slightly Agree n (%)	Neither Agree nor Disagree n (%)	Slightly Disagree n (%)	Strongly Disagree n (%)	Interpolated Median
There is something about people with mental illness that makes it easy to tell them apart from normal people (n=96).	2 (2)	19 (20)	17 (18)	30 (31)	28 (29)	2.2
Mental illness is an illness like any other.	59 (61)	19 (20)	1 (1)	8 (8)	10 (10)	4.7
Virtually anyone can become mentally ill.	72 (74)	18 (19)	2 (2)	2 (2)	3 (3)	4.8
We need to adopt a far more tolerant attitude toward people with mental illness.	57 (59)	32 (33)	4 (4)	2 (2)	2 (2)	4.7
People with mental illness are a burden on society.	2 (2)	5 (5)	9 (9)	17 (18)	64 (66)	1.3
Increased government spending on mental health services is a waste of money.	3 (3)	2 (2)	3 (3)	19 (20)	70 (72)	1.2
People with mental illness should not be given any responsibility.	2 (2)	4 (4)	13 (13)	30 (31)	48 (49)	1.5
People with a history of mental illness should be excluded from taking public office (n=96).	4 (4)	8 (8)	13 (14)	31 (32)	40 (42)	1.8
I would not want to live next door to someone who has been mentally ill.	1 (1)	13 (13)	15 (15)	35 (36)	33 (34)	1.9
As far as possible, mental health services should be provided through community based facilities.	39 (40)	45 (46)	11 (11)	2 (2)	0 (0)	4.3
People with mental health problems should have the same rights to a job as anyone else.	38 (39)	42 (43)	10 (10)	5 (5)	2 (2)	4.3
If a friend had a mental health problem, I know what advice to give them to get professional help.	21 (22)	39 (40)	18 (19)	18 (19)	1 (1)	3.8
Medication can be an effective for people with mental health problems.	33 (34)	50 (52)	7 (7)	6 (6)	1 (1)	4.2
Psychotherapy can be an effective for people with mental health problems.	59 (61)	34 (35)	3 (3)	0 (0)	1 (1)	4.7
Most people with mental health problems go to a health care professional to get help.	14 (14)	19 (20)	19 (20)	39 (40)	6 (6)	2.7
As a future health care professional, I feel confident about discussing mental illnesses with patients.	20 (21)	35 (36)	18 (19)	18 (19)	6 (6)	3.7
The university training I have received on mental health has been satisfactory.	13 (13)	22 (23)	30 (31)	26 (27)	6 (6)	3.1

5=strongly agree, 4=slightly agree, 3=neither agree nor disagree, 2=slightly disagree, 1=strongly disagree

university students (particularly female students), Payakachat, and Panthee and colleagues on pharmacy students.^{11-13,19} While respondents said they would be comfortable talking to friends and family about a mental health condition (interpolated median was 4.4, max 7), more than 40% said they would be reluctant to seek medical help from a doctor. Moreover, only 34% of respondents agreed that most people with mental health problems go to a health care professional to get help (Table 2). In the UK, the doctor is a key medication provider in primary care and a gateway to other mental health services. Similarly, Reavley and colleagues in Australia reported that 16-24 year olds were less likely to seek help for mental health issues than middle-aged or older adults.²⁶ Furthermore, Downs and Eisenberg concluded that people who need professional support the most are the least likely to ask for it.²⁷

Ultimately, pharmacy educators cannot assume that students pursuing health care degrees are looking after their own health adequately. In relation to alcohol intake, the mean intake of alcohol was 18.3 units per week (exceeding the recommended UK amount) with around 70% of pharmacy students reporting binge drinking at least once a week.²⁸ In QUB School of Pharmacy, a mental health first aid program was recently launched whereby a cohort of students across the year groups are trained to spot warning signs of mental health issues among their peers and refer them to appropriate sources of professional help. It would be useful to evaluate the impact of this program and conduct further research to determine the types of professional support that students seek or would consider accessing in relation to mental health issues and barriers toward seeking help.

In this study, respondents did not appear comfortable talking about personal mental health issues with employers. The score was higher in relation to friends and family. However, this finding may be related to concerns about stigma and discrimination since all students thought stigma and discrimination associated with mental illness exists today and most believe that the society should adopt a far more tolerant attitude toward people with mental illness. Northern Ireland may be slower to adopt appropriate attitudes toward mental health than other countries. For example, a public awareness campaign rolled out across various parts of Europe by Kohls and colleagues gleaned less positive results in Ireland compared to Germany and Portugal.²⁹ That being said, many of the students' attitudes toward mental health in this study were positive and appropriate, unlike that previously reported by Bell and colleagues about pharmacy students.¹⁸ The majority of the students in this study thought that people with mental health problems should have the same rights

to a job as anyone else (including being given responsibility and public office positions), and seemed fine with the concept of living next door and having future relationships with people who had mental health problems.

With reference to the training provided and knowledge of the subject area, many student respondents correctly thought that virtually anyone could become mentally ill and all respondents identified common mental illnesses (schizophrenia, depression and bipolar disorder) as being such. However, only 1 in every 2 respondents felt confident talking about mental illness with patients and 6 in every 10 knew what advice to give a friend with a mental health problem. Only 1 in every 3 respondents considered that the university training was adequate. These findings, among others, suggest that the current training provision (a lecture series) is not enough to adequately prepare future pharmacists for practice. Similarly, Aaltonen and colleagues investigated perceived barriers among pharmacy students in relation to providing medication counseling for people with mental health disorders in Australia, Belgium, Estonia, Finland, India and Latvia (n=649) and concluded that more work is needed within pharmacy education programs.³⁰ Furthermore, in this study, some misconceptions exist (in relation to the ability to tell patients with mental illness apart from those without mental illness). In light of this, the authors consider that QUB teaching should be reviewed and evidence-based interventions explored.^{16,17,31-33}

This study has weaknesses. The research was conducted with only a one year group of students at one pharmacy school, making the findings not generalizable. It is also possible that attitudes could change depending on when the study was conducted in the semester (for example, knowledge of mental health conditions could be better after revising for a clinical examination than beforehand and attitudes can change after working in practice, as has been previously reported in pharmacy students).²⁰

CONCLUSION

Many future pharmacists in the UK appear to have appropriate attitudes toward mental health and people with mental health conditions. Gender seemed to have a limited influence on attitudes. However, there was a lack of confidence around advice provision to friends and patients and level of dissatisfaction with the current training provision. Students' reluctance to seek medical help if they ever develop a mental illness mirrors the view held by many members of the general public, but is perhaps surprising given these students are future health care professionals.

This study adds to the field and provides a timely opportunity to reflect on current teaching and what improvements can be made to the educational practice.

Based on the findings, it seems that the current mental health education in the UK is not at an appropriate level to adequately prepare students for practice. Additionally, this study should provide useful baseline data for other pharmacy schools in the UK and potentially beyond. Future research should focus on an exploration of whether having personal mental health issues subsequently affects advice provision to patients and also evaluate the impact of introducing specific mental health awareness training into the program.

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