Relevance of mental health issues in university student dropouts

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Background  
A significant proportion of university students drop out of their courses, representing a significant loss of resources in terms of funds invested in them, as well as loss of revenue to universities.

Aims  
To determine whether a history of recent or current mental health problems affected the likelihood of university students dropping out of their studies and, if so, whether additional supportive measures are needed.

Methods  
We scrutinized the occupational health records of a cohort of students enrolled in 2005 to identify whether they had evidence of mental health problems at that time. Additionally, we identified all cohort members who had dropped out of their courses by 2011, thereby identifying students with a history of mental health problems among all those who dropped out. The dates in question were chosen to ensure that the permissible time limit for completing their studies had elapsed at the end of the follow-up period.

Results  
In total, 1319 student records were surveyed. Of these, 181 students (14%) did not complete their studies. Further, 278 (21%) had evidence of mental health problems at enrolment but students dropping out of courses were not more likely to have had a recent or current mental health problem at the time of enrolling.

Conclusions  
The presence of mental health problems at the time of course enrolment was not a predictor for subsequently dropping out of the course in question. The findings suggest that existing supportive measures for this group may be adequate.

Key words  
Dropouts; mental health; university students.

Introduction

Every year, many university students drop out from their chosen studies and do not obtain their intended qualification. The Higher Education Statistics Agency (HESA) predicted an average of 14% of university dropouts in 2004, while in 2011, it predicted that the national dropout rate for all full-time first-degree entrants in 2008 would be 21% [1]. The rate varies quite widely among universities, ranging from a dropout rate of 2.5% from Cambridge University to one of 52% at the University of the Highlands and Islands (UHI) Millennium Institute in Scotland. Student nurse dropout rates were reported to be 15–20% in the UK [2] and 24% in Denmark [3].

Previous research has shown that mental illness in people in work is associated with higher levels of sickness absence and numbers of spells of absence. Other research has focused on the effectiveness of supportive measures for job retention [4–11]. Studies have also tried to identify what may lead to university students dropping out [2,12]. There is also research into sickness absence among student nurses [13] but no published research on whether mental health problems affect university dropout rates.

University dropouts represent a significant loss of resources in terms of funds invested in the students’ studies up to the point of dropping out (e.g. bursaries provided to clinical students), as well as loss of revenue to the universities because of smaller numbers of students completing their studies. A variety of reasons for the decision to drop out are given, including family or financial reasons, changing one’s mind or health reasons.
Universities keep a record of dropouts and students are usually asked to explain their reasons. However, it is unlikely that all dropouts are scrutinized sufficiently to confirm whether the reason given is the real reason for the decision. It is possible that students who drop out for health reasons (especially mental health reasons, in view of the perceived stigma attached to such problems) will give other reasons for their decision. Even when the stated reason is not directly related to health issues, it is possible that current mental health problems may have affected the student’s ability to meet the challenge of remaining on their chosen course.

The author of this article is an occupational physician responsible for screening students seeking to enter into nursing, health care and social work courses at a large UK university, with an average annual intake for these courses of >1000. Students are screened to assess whether they are medically fit to meet the requirements of the relevant governing bodies for practice in their chosen field. The process includes completion of a health questionnaire by the student and a brief health questionnaire completed by the student’s general practitioner (GP). All students are also seen by occupational health staff and all the available information is considered to assess the students’ medical fitness to train in their chosen subjects.

The aim of this study was to assess whether the presence of current or recent mental health problems in prospective students influences the likelihood of them dropping out before completion of their courses. If so, this would suggest some potential benefit in formulating additional supportive measures for such students to reduce the likelihood of dropouts.

Methods

A retrospective study was undertaken involving all new entrants to the specified courses in 2005. This particular year was chosen to be certain that any dropouts identified had not completed their chosen degree by the time of data collection in 2011, as all these courses have a time limit of 5 years for completion. Students sometimes take temporary leave from their studies for various reasons (e.g. maternity leave) but resume their studies at a later date. Therefore, all dropouts from the 2005 entrance cohort identified in 2011 were confirmed not to have completed their studies.

‘Current or recent mental health issues’ were defined as follows: (i) students on psychotropic medication or receiving psychological therapy at time of enrolment; and (ii) students with evidence of receiving treatment for mental health problems within the 12 months preceding enrolment. Mental health problems thereby identified included anxiety, depression, controlled psychoses and eating disorders. Any applicant with a significant mental disorder felt to be unacceptable for the chosen course would not have been medically cleared to start the course.

To evaluate the significance of such mental health problems in students who dropped out of these courses, it was necessary to determine the proportion of students entering the courses in question who met this definition. Therefore, all student occupational health records for the 2005 intake were manually scrutinized and separated into three categories: (1) students with no evidence of any mental health problems; (2) students with past evidence of mental health problems (i.e. >12 months before enrolment) and (3) students with evidence of recent or current mental health problems.

Two administrative staff carried out the first sift, and files with any mention of medical problems in questionnaires completed by students or their GPs were identified and subsequently scrutinized by the researcher to identify those with evidence of a mental health problem. Such cases were further subdivided into those where there was evidence of recent or current treatment and those where the problem was further in the past. The total number of files scrutinized was checked to ensure that it tallied with the total recorded electronically. In spite of this, it is possible, although unlikely, that an occasional file may have been misclassified. However, such errors are likely to have been infrequent and thus unlikely to affect the outcome of the study.

Each school provided a complete list of all students who had dropped out from the 2005 intake. From this, it was possible to identify into which category each of the dropouts fell. Ethical approval was received from the University of Salford Research Ethics Panel (Ref REP10/179). All personal data were then securely shredded as agreed with the ethics committee.

Results

The sample included 1319 students, of whom 80% were female. Moreover, 181 (14%) students did not complete their studies (Table 1). The dropout rate was highest for nursing students (n = 573), wherein 26% (151) dropped out compared with 3% (17/519) of health care students and 6% (13/227) of social work students. There was no difference in dropout rate by gender (Table 2). Seventy-nine per cent of students

Table 1. Overall population of successful students and dropouts

<table>
<thead>
<tr>
<th></th>
<th>Completed studies</th>
<th>Dropouts, n (%)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursing students</td>
<td>422</td>
<td>151 (26)</td>
<td>573</td>
</tr>
<tr>
<td>Health care students</td>
<td>502</td>
<td>17 (3)</td>
<td>519</td>
</tr>
<tr>
<td>Social work students</td>
<td>214</td>
<td>13 (6)</td>
<td>227</td>
</tr>
<tr>
<td>Total</td>
<td>1138</td>
<td>181 (14)</td>
<td>1319</td>
</tr>
</tbody>
</table>
had no recorded history of mental health problems (Table 3), 16% (217) had a past history of such problems and 5% (61) had evidence of current or recent mental health problems. A greater percentage of nursing and social work students had a history of mental health problems compared with health care students. Out of the total number of dropouts, 90% had no history of mental health problems, 6% had a past history of such problems and only 4% had current or recent mental health problems (Table 3). None of the dropouts from health care studies were students with recorded mental health problems. A greater proportion of students with no mental health history dropped out from their studies and this difference was statistically significant ($P < 0.001$; Table 4). Of the students with a recorded history of recent or current mental health problems, a slightly greater proportion completed their studies compared with the dropouts (Table 4). However, on statistical analysis, this difference was not significant. Students with a history of past mental health problems were more likely to complete their studies ($P < 0.001$; Table 5). There was no significant difference between the proportion of students completing courses and those dropping out (Table 5).

### Discussion

This study found that a history of mental health problems at the time of enrolment did not predict whether health care and social work university students subsequently dropped out from their courses. There are many possible reasons for this finding. First, it is possible that the students who had no recorded history of mental health problems included a number of people with undiagnosed mental health problems. It is not uncommon for such people to resist seeking medical attention for fear of the stigma attached to such a diagnosis. Students with mental health problems often indicate that their own experiences as patients lead them to choose a nursing, health care or social work course. They often indicate wishing to ‘give something back’ for the care they received. Consequently, they may have greater motivation to prove their capability compared with other students. A variation of the ‘healthy worker’ confounding effect may also exist in the study group. Students accepted into a university course have to achieve required grades to be offered a university place. The fact that those with mental health problems were able to achieve such grades suggests that, in spite of these problems, their functional ability remained good. This may be different to the case of employees with mental health problems where they may not have to demonstrate a comparable level of functional ability to become employed. There may be other significant factors besides mental health problems that have a greater influence on students deciding to drop out. Andersson [12] found that, in first-year students, the high stress of moving to university itself contributed more to dropping out than either a history of anxiety or depression or the well-known hazardous alcohol drinking habits of university students.

A further finding of the study was that a greater percentage of nursing students dropped out compared with health care or social work students. Many student nurses decide to enrol in the course during the university ‘clearing’ period and may be more likely to drop out when they realize how intense and demanding the course is. Such a conclusion would be consistent with the findings of Glossop [2], who also identified academic difficulties and wrong career choice as the most common reasons for dropping out. Svennson [3] found that a recent history of low back pain on its own was not a predictor of dropping out in student nursing assistants, but it became more significant when it occurred in conjunction with a previous history of heavy physical work, poor performance in a back extension endurance test or a low mental health score. Kaul [13] found

### Table 2. Gender demographics

<table>
<thead>
<tr>
<th></th>
<th>Male (dropouts)</th>
<th>Female (dropouts)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursing students</td>
<td>84 (24)</td>
<td>489 (127)</td>
</tr>
<tr>
<td>Health care students</td>
<td>129 (6)</td>
<td>390 (11)</td>
</tr>
<tr>
<td>Social work students</td>
<td>43 (3)</td>
<td>184 (10)</td>
</tr>
<tr>
<td>Total</td>
<td>256 (33)</td>
<td>1063 (148)</td>
</tr>
</tbody>
</table>

### Table 3. Mental health history in all students and dropouts subdivided into various groups

<table>
<thead>
<tr>
<th></th>
<th>All students ($n = 1319$)</th>
<th>Dropouts ($n = 181$)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No mental health history</td>
<td>Past mental health issues</td>
</tr>
<tr>
<td></td>
<td>($n = 1041$), $n$ (%)</td>
<td>($n = 217$), $n$ (%)</td>
</tr>
<tr>
<td>Nursing</td>
<td>423 (32)</td>
<td>117 (9)</td>
</tr>
<tr>
<td>Health care</td>
<td>450 (34)</td>
<td>55 (4)</td>
</tr>
<tr>
<td>Social work</td>
<td>168 (13)</td>
<td>47 (4)</td>
</tr>
</tbody>
</table>
that pre-existing psychiatric disorders in student nurses were associated with increased sickness absence duration during their training. This was a retrospective study of hospital-based student nurses enrolled between 1992 and 1995, before nurse training became a university-based course.

A strength of the study was the accuracy of the data, as these were not subject to problems such as recall bias or poor response rate inherent in questionnaire-based studies. No attempt was made to try to further separate subjects in terms of mild, moderate or severe mental health problems in this study. While this may be a potential weakness, to do so would have introduced a significant bias since subjects had already been screened to confirm their fitness to train. This means that a number of applicants with ‘severe’ mental health problems would likely have already been excluded. Therefore, subdividing subjects into different severity groups would have found fewer cases of ‘severe’ mental health problems. Although a diagnosis of such mental health problems does not automatically exclude prospective students, it is usual that such applicants will have demonstrated excellent insight, good treatment compliance and an ability to maintain good state of health without excessive professional support.

The UK Office of National Statistics *Psychiatric Morbidity Among Adults Living in Private Households* [14] estimates that one in six of the general population has a common mental health condition at any one time, which is likely to be reflected in those enrolling in university courses. People with mental disorders are more than twice as likely to lose their jobs compared with people who do not have such conditions [15]. This raises the question whether the same could happen to people with mental health conditions enrolling in university courses. This can only be investigated in students who, because of the course chosen, have to undergo a medical fitness screening prior to enrolment. The Clothier report [16], following the Allitt inquiry, made recommendations in relation to the standards of health for health care workers with significant mental health issues, namely, that such people should demonstrate an ability to live an independent life without professional support and should have been in stable employment for at least 2 years before acceptance in a training course. Poole [17] considered these recommendations to be ‘a reasonable precaution’ provided each case is assessed on its own merits. Kloss [18] agrees with this view in an editorial that outlines an appropriate approach to making such decisions when taking disability discrimination legislation into consideration.

In our university, any student identified as having a recent and significant history of mental health problems is assessed by the occupational physician. This includes a mental health assessment and obtaining of appropriate psychiatric reports. If necessary, students are referred for an independent psychiatric assessment. Subsequently, students are either cleared as fit to train without further review or regular reviews are arranged with the occupational physician for the first few months of the course, in order to offer additional support and advice to the student as necessary. This study suggests that the current arrangements for this group of students are satisfactory and need not be altered, although further studies would be needed to confirm this, for example by undertaking a retrospective study on a comparable cohort of students elsewhere without such arrangements or by prospectively randomly allocating groups of students with

| Table 4. Statistical analysis comparing students/dropouts with no or ongoing/recent mental health history |
|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| Completed                      | Dropouts                        | Proportion difference | Confidence interval | Statistical significance |
| (n = 1138)                     | (n = 181)                       |                  |                          |                            |
| No mental health history       | 878 (0.77)                      | 163 (0.90)        | -0.13                  | -0.17 to -0.07             | P < 0.001                      |
| Ongoing/recent mental health issues | 54 (0.05)                       | 7 (0.04)          | 0.01                   | -0.03 to 0.03              | NS                             |

Analysis conducted using Stats Direct computer program’s ‘Two independent proportions’ analysis tool; NS, not significant.

| Table 5. Statistical analysis comparing students/dropouts with past history of mental health history and by gender |
|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| Completed                      | Dropouts                        | Proportion difference | Confidence interval | Statistical significance |
| (n = 1138)                     | (n = 181)                       |                  |                          |                            |
| Past history of mental health issues | 206/1138 (0.18)                   | 11/181 (0.06)      | 0.12                   | 0.071 to 0.16              | P < 0.001                      |
| Males                          | 223/1138 (0.20)                  | 33/181 (0.18)      | 0.014                  | -0.05 to 0.07              | NS                             |

NS, not significant.
mental health problems to either the same arrangements or alternative supportive measures.

**Key points**

- This study found that a significant number of university students, especially nursing students, dropped out of their chosen courses.
- The presence of a recorded history of past or present mental health problems at the time of student enrolment was not a predictor of subsequent dropping out.
- This study supports the view that less favourable treatment of applicants with past or current mental health problems to university courses is not justified on the grounds of an assumed higher dropout rate.

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**Conflicts of interest**

None declared.

**References**