MENTAL HEALTH WORKSHOPS DELIVERED BY MEDICAL STUDENTS IN CAMBRIDGE SECONDARY SCHOOLS: AN EVALUATION OF LEARNING

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SUMMARY

Aims: For a group of medical students to design and deliver a mental health workshop in Cambridge secondary schools. Subsequently, to evaluate any improvements in pupils' knowledge of mental health issues, including knowledge of common mental illnesses, stigma and where to access help with mental health problems.

Method: A group of three medical students undertook a five week Student Selected Component to develop a mental health workshop in Spring 2013. The workshop was designed to include interactive components, such as role play, models and video. It was delivered to eight classes of 12-13 year old pupils across two local secondary schools, a total of 230 students. Questionnaires were completed before and after each workshop to test knowledge acquisition of mental health issues, stigma and where pupils could get help with mental health problems. Comparisons between data from the pre- and post-workshop questionnaires were made to assess learning.

Results: The responses from the questionnaires showed a global improvement in knowledge of mental health. This is highlighted by the increase in awareness of the prevalence of mental health problems amongst young people from 47.0% before the workshops to 97.8% after the workshops. The ability to identify symptoms of anxiety rose from 21.7% to 44.8% and the ability to identify depression rose from 29.0% to 53.5% respectively. Whilst only 15.2% pupils disagreed with a stigmatising statement about mental illness before the workshops, 61.3% pupils disagreed afterwards. The students were also better informed about how to access help and identified areas that they found useful to learn about.

Conclusion: Comparison of the pre- and post-workshop questionnaires indicate that medical student-led workshops are an effective method for improving knowledge of mental health topics amongst 12-13 year old school pupils, as well as encouraging positive attitudes towards mental health. The project highlights a demand for mental health education in schools and brings to light topics that could be covered in future sessions or similar projects.

Key words: *mental health – education - secondary schools*

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INTRODUCTION AND BACKGROUND

In the UK one in ten children between the ages of five and sixteen suffers from a clinically diagnosed mental disorder (Green et al. 2005). Given how common mental illness is in young people, it is important that adolescents understand how they may be affected and how to seek help. A report from the World Health Organisation Department of Mental Health and Substance Abuse identified depression as the leading cause of disability worldwide and highlighted how education regarding this illness can play a role in its prevention and understanding (Marcus et al. 2012).

The current UK Key Stage Three national curriculum for Physical, Social, Health and Economic education (PSHEE) briefly mentions mental health. (Department of Education 2011) However, this teaching is non-statutory and is subject to the discretion of individual schools. Given the non statutory nature of the PSHEE curriculum, there may be a discrepancy between schools regarding how well mental health is tackled.

Mental health teaching, delivered by pastoral school staff over a series of lessons, has been shown to be beneficial to secondary school pupils (Naylor et al. 2009). The idea of this teaching being given by health professionals originated in Belfast, with four trainee psychiatrists producing workshops as part of a project addressing mental health teaching in schools (Sloan et al. 2011). In 2009 their work was presented at the Psychiatric Training Committee (PTC) Residential Conference. The PTC subsequently set up an information sharing forum for trainee psychiatrists to supervise undergraduate medical students in undertaking mental health education-based Student Selected Components (SSC). This was set up following an Information Sharing Day - 'Heads above the Rest', set up by the Belfast group in May 2010. A comparable project was found to be running at University College London set up by MBPhD student Kelly Clarke, which linked into the national group. Since 2009 a number of clinical schools have adapted the Belfast project such that it can be offered as an SSC to their medical students working in partnership with local schools. Author (MS) has offered this SSC to Cambridge University School of Clinical Medicine students twice previously. These workshops have been met with enthusiasm by Key Stage Three pupils, and data on pupil satisfaction has been published previously (Jones et al. 2011). This study goes on to assess the success of workshops in terms of learning achieved by the participating pupils.

Authors (CB, AD and ST) were three fourth year medical students from Cambridge University School of Clinical Medicine supervised by a child and adolescent psychiatry registrar (MS). They had a five week period to plan, deliver and review workshops. The content focussed on the pertinent issues suggested from the PTC information sharing forum and included the importance of mental health, common issues affecting adolescents, stigma, and where to get help with mental health issues. Results showed pupils were receptive to mental health teaching as assessed by questionnaire responses.

METHOD

Delivery

Authors (CB, AD and ST) are a group of three medical students from Cambridge University who undertook the project 'Mental Health Workshops in Schools' in Spring 2013 in which they developed and delivered teaching sessions to 12-13 year old pupils. Prior to development of the workshops, Humanities teachers were contacted at four Cambridge secondary schools. Two teachers responded positively to the request for workshops to be delivered to their pupils. A pre-workshop meeting was arranged with each link teacher to discuss relevant topics and workshop logistics. Based on these discussions, a fifty minute workshop was designed and delivered to eight classes of pupils across the two schools. In total, 230 children attended. All workshops were supervised by a mental health professional.

Delivery of the workshops was preceded by a three week research period. This included studying the content and format of previous mental health workshops and analysing what topics would be most appropriate to include. Time was also spent in local youth mental health settings to give further contextual understanding of mental disorders in young people. This included time on an inpatient children's mental health unit, a local multifamily group project and an outpatients' clinic. Input from mental health professionals was given at all stages of the project and twice weekly supervision sessions with the project supervisor were organised.

Content

A number of teaching styles were used in the workshops to address four main topics: what mental health is and its relevance to adolescents, three mental health problems commonly affecting young people (depression, anxiety and drug and alcohol abuse), stigma and where to get help.

After an ice breaker activity a short narrative and video explained what mental health is and how common mental health problems are in young people. The specific mental illnesses covered were first explained in general terms, then different teaching methods were employed to enhance salient points. Depression, anxiety and drug and alcohol use were covered by use of videos, visual stimuli and class participation. To explore the concept of stigma and the problems it can cause for people suffering from mental illness a role play scenario, video and class discussion were used.

After the role play the class was asked to suggest how they may access help and support for mental health issues. Before leaving the workshop, each student was given a leaflet detailing the pastoral systems that each school had in place and including contact details of a number of registered local and national mental health organisations.

Data collection and analysis

Pre- and post-workshop questionnaires were designed to reflect the main teaching points of the workshops. Pre-workshop questionnaires were filled in by the relevant classes, approximately a week before teaching. Post-workshop questionnaires were handed out at the end of each session. Both quantitative and qualitative data were collected. Pre- and post-workshop comparisons were made so that numerical values and percentages could be ascertained for each question asked. Data were then analysed for each question and topic area separately.

RESULTS

In total, 217 pupils completed pre-workshop questionnaires and 230 pupils completed post-workshop questionnaires. Throughout the study, responses to single correct answer multiple-choice questions were counted as valid if only one answer was ticked and responses to multiple correct answer multiple-choice questions were counted as valid if one or more answers were ticked. Each multiple-choice question was answered validly by a minimum of 195/217 (89.9%) pupils in the pre-workshop questionnaires and 208/230 (90.4%) pupils in the post-workshop questionnaires. Answers to questions requiring written responses were counted as invalid if the question was unanswered or the answers were incomprehensible or irrelevant. Written-answer questions were completed validly by at least 187/217 (86.2%) pupils before the workshops and 168/230 (73.0%) pupils after the workshops.

Importance of mental health

In order to assess the pupils' views on the importance of mental health, four multiple-choice questions were asked in the pre- and post-workshop questionnaires (Figure 1, Figure 2).

I think it is useful to learn about how young people can be affected by mental health

Before the workshops, 196/217 (90.3%) pupils either agreed or strongly agreed with this statement, with 'agree' offered as the most common response by 124/217 (57.1%) pupils. After the workshops, 228/230 (99.1%) pupils agreed or strongly agreed that learning about mental health in young people is useful, with 137/230 (59.6%) selecting 'strongly agree' (Figure 3).
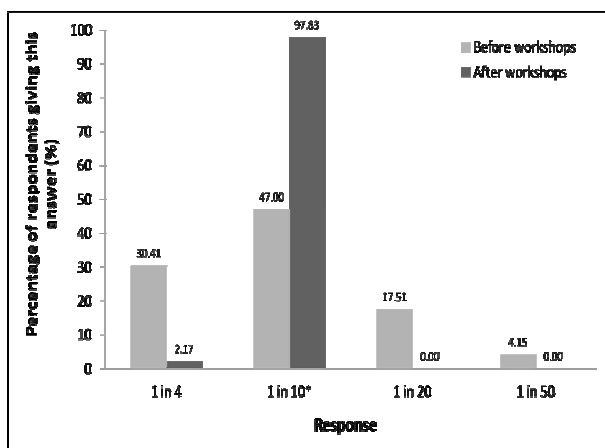
Figure 1. Response to 'What proportion of young people has mental health problems?' The correct answer is starred (*) (Green et al. 2005)
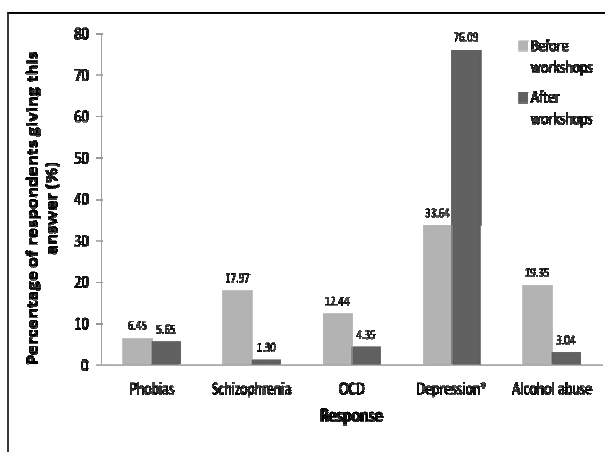

Figure 2. Response to 'Which mental illness is the leading cause of disability worldwide?' The correct answer is starred (*) (Marcus et al. 2012)

What proportion of young people has mental health problems?

The pupils considered the prevalence of mental health problems in young people (Figure 1). 102/217 (47.0%) gave the correct answer before the workshops, whereas 225/230 (97.8%) pupils gave the correct answer afterwards.

Mental health can have just as much impact on overall health as physical health

Pupils responded to this statement by ticking either 'agree', 'disagree' or 'don't know'. Before the workshops, 157/217 (72.4%) pupils agreed with this statement, rising to 202/230 (87.8%) pupils afterwards.

Which mental illness is the leading cause of disability worldwide?

This question was used to emphasise the impact of mental health on overall wellbeing (HM Government 2011) (Figure 2). 73/217 (33.6%) pupils correctly chose depression as the leading cause of disability in the pre-workshop questionnaires, compared to 175/230 (76.1%) pupils in the post-workshop questionnaires.
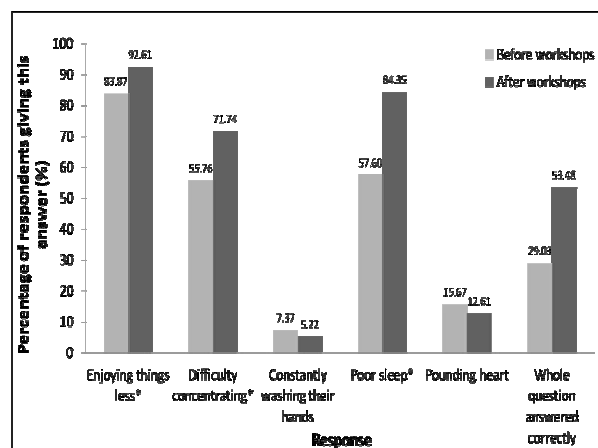

Figure 3. Response to 'If someone is ill with depression, which of the following things are they likely to suffer with?' The correct answers are starred (*) (WHO 1992)

Common mental illnesses in young people

Pupils' awareness of depression, anxiety and the effects of drug or alcohol abuse on mental health were assessed before and after the workshops by three multiple-choice questions.

Which symptoms are common in depression?

Pupils were asked to tick all the symptoms which they believed people with depression suffer with (Figure 3). 63/217 (29.0%) pupils answered the whole question correctly before the workshops, increasing to 123/230 (53.5%) pupils afterwards.

Which problems could people with anxiety disorders have?

Respondents were invited to tick as many options as they thought correct (Figure 4). 47/217 (21.7%) pupils gave a fully correct answer in the pre-workshop questionnaire, compared to 103/230 (44.8%) pupils in the post-workshop questionnaire (Figure 4).
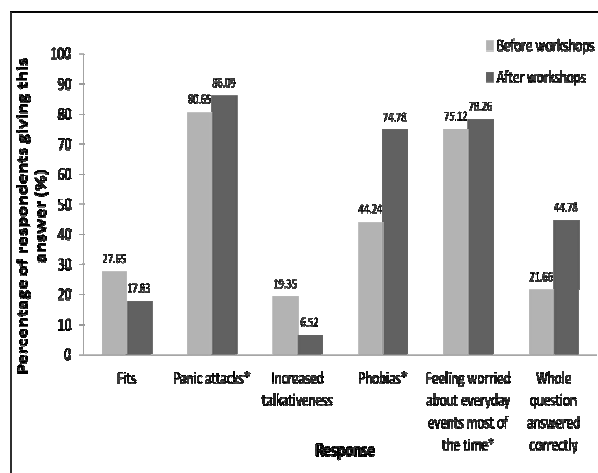

Figure 4. Response to 'If someone has an anxiety disorder, which of the following problems could they have?' The correct answers are starred (*) (WHO 1992)

Drug or alcohol abuse can worsen a person's mental health

Pupils expressed the extent to which they agreed with the statement (Figure 5). Before the workshops 197/217 (90.8%) pupils agreed or strongly agreed, rising to 223/230 (97.0%) pupils afterwards.
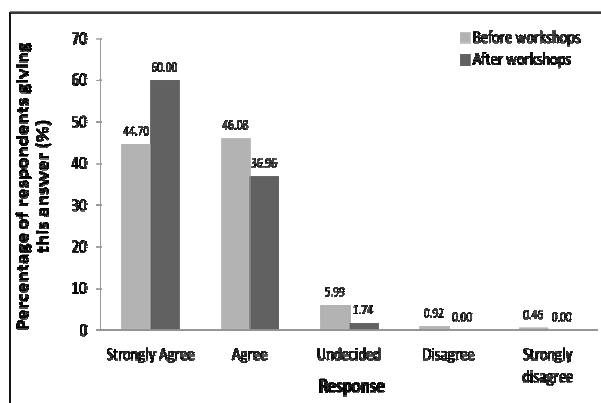

Figure 5. Response to statement 'Drug or alcohol abuse can worsen a person's mental health'

Attitudes towards people with mental health problems

People with mental illness are usually dangerous to others

Pupils were asked, both before and after the workshops, the extent to which they agreed with this stigmatising statement (Figure 6). 33/217 (15.2%) pupils disagreed or strongly disagreed in the pre-workshop questionnaire in contrast to 141/230 (61.3%) pupils in the post-workshop questionnaire.

Has this workshop changed how you think about people with mental health problems?

168/230 (73.0%) pupils agreed with this question. Several of those who disagreed gave qualifying statements indicating that they were previously aware of the topics covered.

Where to get help with mental health problems

Before the workshops

The pupils gave their ideas about where to get help with mental health problems before the workshops. These were grouped into common categories, detailed in Table 1. If a pupil gave multiple suggestions which fitted into different categories, each response was counted separately. If a pupil gave more than one response in the same category, this was counted as a single response.

Categories in which more than 5% (>11/217), pupils gave a fitting response are displayed in figure 7. Smaller categories included 'Other NHS resources' (eg. NHS website), 'Frank' and 'Other Charities' (each charity mentioned by fewer than 1% (<2/217) pupils).

After the workshops

Pupils' suggestions of new places they had learnt to access help were grouped into common categories, according to the method used in the previous question.

Categories in which more than 5% (>12/230) pupils gave an appropriate response are displayed in figure 8. Other categories included 'Friends', 'Family', 'Cambridgeshire Child and Adolescent Substance Use Service' and 'Internet'.

Table 1. Categories applied to pre-workshop suggestions of where to get help with mental health problems

| Category	Responses
Friends	Friends
Family	Mother, family, parents, grandmother, father, parents/carer, people at home
School	Teachers, school, school nurse
Other person	Someone you trust, carer, people, advice, anyone, someone you know, people close to you, responsible adult, support workers, myself, adults, someone who has been through it before
General medical professional/institution	Doctor, GP, nurse, hospital consultant, pharmacist, occupational therapist, doctors' surgery, hospital, Addenbrooke's, NHS, clinic, health clinics, A&E, care units
Mental health professional/institution	People who specialise in mental illness, counsellor, psychologist, mental health doctors, therapist, psychiatrist, Brookside, Fulbourn Hospital, mental health, mental home, rehab, mental health hospital, asylum, Brookfields
Other NHS resources	NHS helpline, NHS online, NHS website
Childline	Childline
Talk to Frank	Talk to Frank, Frank
Other charities	RSPCA, charities, Mental Health UK, Cruse, NSPCC, Red Cross, Samaritans, Mind
Internet	Websites, Support forum, Google - help with mental illnesses, Wikipedia, Ask Jeeves, Yahoo, Online, Tumblr, Google, Internet
Other	Citizens' advice, place of worship, local groups, helpline, the police, anti-bullying, the council, newsletters/leaflets, self hypnosis books, music, 999, clubs, books, centres, youth group, specialist call centres, support groups
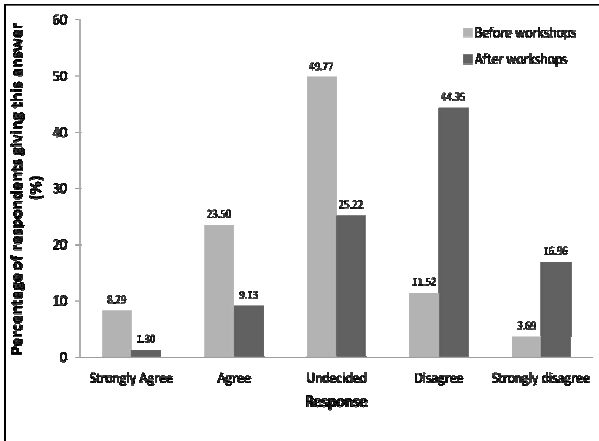
Figure 6. Response to statement 'People with mental illness, such as schizophrenia, are usually dangerous to others.'
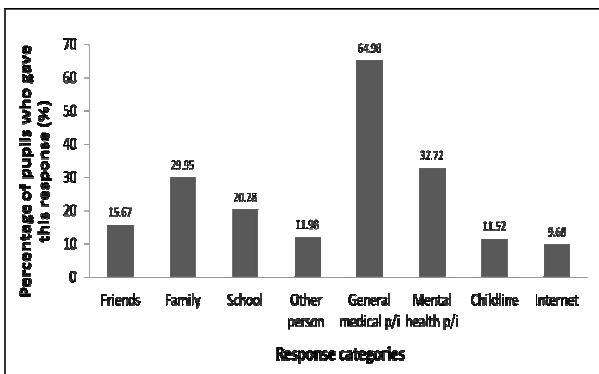

Figure 7. Response to 'Where could you get help if you, or someone you knew, was suffering from a mental health problem?' p/i = professional/institution
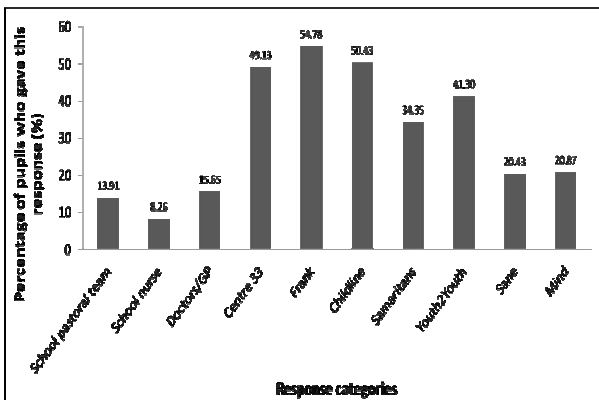

Figure 8. Response to 'What new places have you learnt about where could you get help if you, or someone you knew, was suffering from a mental health problem?'

Key learning and future directions

What is the most useful thing you have learnt?

Answers were grouped into common categories as before. Categories in which more than 5% (>12/230) pupils gave a fitting response are displayed in figure 9.

Examples of other categories include 'More about drugs and alcohol', 'People with mental health problems are not usually dangerous' and 'Mental illness is a serious issue'.
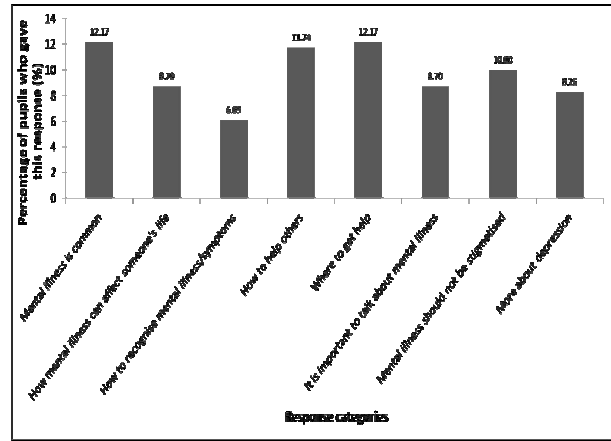

Figure 9. Response to 'What is the most useful thing you have learnt from today's session?'

What else would pupils like to learn?

Following the workshops, students stated what else they felt it would be useful to cover in relation to mental health. Categories in which more than 5% (>12/230) pupils gave a fitting response are displayed in figure 10. The most common category of 'Other mental illnesses' incorporates suggestions of specific disorders, which included schizophrenia, ADD/ADHD, dyspraxia, dyslexia, self-harm, bipolar disorder, personality disorder, anorexia/eating disorders and autism.

Examples of smaller categories include 'More about the symptoms of mental illness', 'More on how to help others' and 'More on the effect of mental illness on people's lives'.
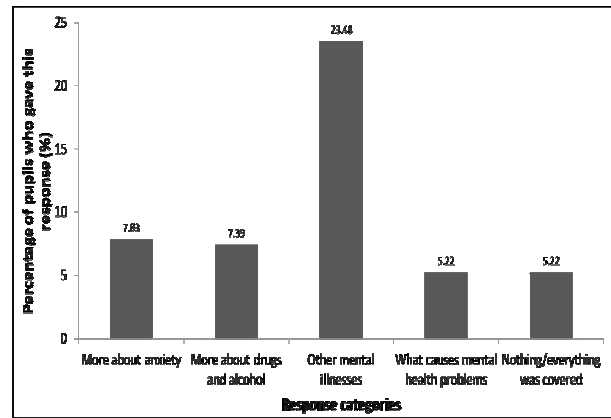

Figure 10. Response to 'If we were to come back for another session on mental health, what else would it be useful to cover?'

DISCUSSION

This study shows that the mental health workshops carried out were effective in increasing mental health awareness. Arguably the most notable areas of improvement were in combating stigmatising views and in providing information on where to get help. In addition, the workshops succeeded in emphasising the importance of mental health and improving students' knowledge of

common mental health problems. It has been suggested that increased mental health literacy may encourage earlier help-seeking (Kelly et al. 2007), thus improving outcomes, and could also help combat stigma (Naylor et al. 2009).

This project is consistent with other studies (Pinfold et al. 2003, Pejović-Milovančević et al. 2009) reporting that educational interventions can be an effective way of tackling the negative attitudes that many young people have towards people with a mental illness. The workshops aimed to educate students about such stigma and its consequences, and attempted to dispel the common myth that people with mental illness are usually dangerous to others. There was a large increase in the number of students that disagreed or strongly disagreed with this myth (61.3% (141/230) in post-workshop questionnaires compared with just 15.2% (33/217) pre-workshop). Moreover, 73.0% (168/230) of pupils said that the workshops had changed the way in which they think about people with mental health problems. It was also encouraging to see that one of the most useful things that some pupils learned from the workshops was that mental illness should not be stigmatised; 10.0% (23/230) of pupils gave this answer in free text, the fourth most popular response.

Another important aim of the workshops was to provide pupils with information on how and where to access support when worried about mental health. This was highlighted as a key learning aim, as a study conducted by predecessors (Jones et al. 2011) showed that only 3.7% (4/109) of pupils reported 'where to get help' as something they had learned from their workshop. This study demonstrates an impressive improvement in this area. Pre-workshop questionnaires identified that whilst the students were aware of broad areas that they could go to for help, they lacked knowledge of specific local and national sources of support. Following the workshop, the students were able to recall many more specific places that they could access support, the most popular being Childline, Talk to Frank and Centre 33, a local service for young people. It is hoped that this increase in awareness will lead to improved mental health outcomes and appropriate use of resources.

The pre- and post-workshop questionnaires distributed to school pupils in this study provide a useful indicator of pupil's baseline knowledge of mental health issues and of what they have learned. This study showed that the pupils had some pre-existing awareness of mental health problems. The majority of students already seemed aware that mental illness in adolescents is common, although several were unaware of its actual prevalence. 77.4% (168/217) believed that mental illness in young people was at least as common as 1 in 10 pre-workshop, with 30.4% (66/217) pupils incorrectly stating it was even more common than this. This may be due to recent Time to Change campaigns (www.time-to-change.org.uk; 2013), which have highlighted '1 in 4' prevalence in the adult population. However, the workshops refined this knowledge and effectively conveyed the prevalence of mental illness in young

people; 97.8% (225/230) of pupils answered correctly that 1 in 10 young people are affected by mental health problems in post-workshop questionnaires. Moreover, 12.2% (28/230) of pupils mentioned that one of the most useful things they learnt from the workshops was how common mental illness is.

Another focus of the workshops was the importance of mental health. After the workshops 99.1% (228/230) of pupils, compared with 90.3% (196/217) before, agreed or strongly agreed that it is useful to learn about how young people are affected by mental health. These figures reflect a pre-existing demand for mental health education by such pupils, which was further built upon by the workshop delivery. Previous work has reflected this demand (Kidger et al. 2009), and has highlighted deficits in the current delivery of such education. In addition, 87.8% (202/230), compared with 72.4% (157/217) pre-workshop, of pupils agreed that mental illness can have just as much impact on overall health as physical illness. This reflects a growing realisation of the parity of mental and physical health, as illustrated by the recent paper 'No Health Without Mental Health' (HM Government 2011). The pupils were also asked which mental illness was the leading cause of disability worldwide and following the workshops the majority of the cohort (76.1% (175/230) compared with 33.6% (73/217) beforehand) were aware that this is depression. These results demonstrate that there was some existing appreciation of the significance of mental health, but that this was reinforced by the workshops.

The workshops also succeeded in improving basic knowledge of common mental health problems in young people. In the questions relating to depression and anxiety, the most notable increases were seen in the number of pupils who answered the whole question correctly. In the depression question, 29.0% (63/217) answered the entire question correctly before the workshops, whereas 53.5% (123/230) did so afterwards. For the question regarding anxiety, 21.7% (47/217) initially answered the question completely correctly, compared with 44.8% (103/230) after the workshops, demonstrating more than double the number of pupils got this question fully correct.

The majority of pupils already held the view that drug and alcohol misuse can have a significant impact on mental health; 90.8% (197/217) agreed or strongly agreed. The workshops appear to have reinforced this view, since 97.0% (223/230) of pupils agreed or strongly agreed and none disagreed in post-workshop questionnaires. This was the only area of mental health on which the pupils had previously received any formal teaching, which could account for the high pre-existing awareness of the impact of these conditions.

Free text comments in the post-workshop questionnaires provided some qualitative data on pupils' responses to the workshops. When asked what was the most useful information learned from the workshops, the three most popular answers were that mental health problems are common (12.2% - 28/230), how to access help (12.2% - 28/230) and how to help when worried

about someone's mental health (11.7% - 27/230). When asked what topics pupils would like to be covered in further workshops, by far the most popular answer was other forms of mental illness, which once again reflects the desire of students to learn more about mental health. These observations may be helpful for development of future workshops.

Limitations

The major limitation to this project is its restricted generalisability. All eight workshops were delivered in two secondary schools in Cambridge with similar pastoral support systems and PSHEE programmes. The attitudes and awareness of this cohort cannot, therefore, be accurately extrapolated to the wider population.

A further limitation is that due to the short length of this project, longer term retention of knowledge gained from the workshops was not assessed. Post-workshop questionnaires were only able to test immediate recall as they were distributed at the end of the workshops. In order to assess knowledge retention another questionnaire would have to be completed by the cohort after a significant period of time had passed. However, studies show that recall is improved after an interactive workshop in preference to a didactic teaching session (Weare & Nind 2011).

In addition, a control group would have increased the reliability of results. Overcoming such limitations would have been beyond the scope of what could be accomplished within a five week SSC, and similar limitations have been identified in other educational interventions targeting mental health (Schachter et al. 2008).

CONCLUSIONS

The results of this study demonstrate a global improvement in pupils' awareness of the importance of mental health, common mental health issues, stigma, and where to get help. Significant demand for mental health education by young people was identified, as well as key learning points that students found useful. This study demonstrates that single workshops, delivered by medical students as part of their SSC, can be a constructive tool in improving knowledge of and attitudes towards mental health, and providing information on where to access help.

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