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CARNEGIE SCHOOL OF EDUCATION



Mind Your Head – Programme Evaluation

October 2018

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Abstract

The evaluation of Cambridge United Community Trust's Mind Your Head programme delivery shows that statistically significant improvements in mental health literacy are made as a result of the programme and this occurs across all genders and ethnicities. The quantitative evaluation included over 500 participants and the qualitative evaluation included students and teachers from all six schools delivered to in the monitoring period. The questions with the largest improvement in the quantitative evaluation revolved around dealing with stress, understanding the causes of poor mental health and spotting signs of mental ill health. The qualitative data indicates that the programme is valued by both schools and participants and that students' understanding of key issues around mental health and well-being was improved.

Key Findings

- 2.5 times more students scored over 80% on mental health literacy after the programme than before and 3.3 times more scored over 90% after than before.
- On average mental health literacy increased 8.4% as a result of the programme which represents 16.9% of the maximum possible improvement.
- Female participants started and finished with higher mental health literacy scores than male participants on average.
- The Mind Your Head programme increased mental health literacy across all genders and ethnicities analysed. Those identifying as white started with higher mental health literacy scores although improvements as a result of the programme are not significantly different for those identifying as white.
- There were no statistically significant changes in well-being overall or for any major gender or ethnic groups.
- The greatest improvements were seen across questions including increasing understanding of dealing with stress, the causes of poor mental health and recognising the signs of poor mental health. Questions with smaller improvements focus more around stigma.
- Qualitative data indicate that:
 - Students understood the differences between mental health and mental ill health and were able to identify strategies to be resilient to adverse experiences.
 - Students were able to recognise the signs of mental ill health and were aware of the differences between low mood and depression.
 - Students were aware of the importance of talking to others and able to discuss how this alleviates mental ill health.
 - Students were able to identify the benefits and risks of social media use and able to identify ways of keeping themselves safe online.
 - Students were able to identify the positive and negative effects of stress and able to identify ways of managing stress.
 - Students were aware of the importance of social interaction and community participation in facilitating positive mental health.



Introduction

Context and literature

The World Health Organisation (2014) defines mental health as:

...a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community. Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.

It is important to acknowledge that mental health exists along a continuum which ranges from being mentally healthy to being mentally ill. Thus, mental health is more than the absence of mental illness (Keyes, 2002). The World Health Organization (2013, p. 6) has stressed that ‘there is no health without mental health’. Thus, one’s mental health is an essential element of being healthy, alongside their physical and social health.

The inter-relationship between physical, social and psychological well-being has long been established in the literature, although the relationship between mental health and well-being is sometimes unclear. For example, in some studies well-being is viewed as a component of mental health (Hanlon & Carlisle, 2013; Huppert, 2005; Keyes, 2005) but in other publications mental health is viewed as a component of overall well-being (Lehtinen, Ozamiz, Underwood and Weiss, 2005; World Health Organization, 1946). It is generally accepted that the different components of well-being are not mutually exclusive in that they support each other. Common attributes of well-being in children and adolescents include self-esteem, subjective well-being, quality of life, and psychological resilience (Lubans et al., 2016). Additional attributes may also include confidence and motivation.

Improving people’s mental health has been identified as one of the most critical public health priorities (Kieling et al., 2011; Knifton and Quinn, 2013). Data from the UK Child and Adolescent Mental Health Survey published in 2004 estimated that 10% of children and young people aged 5-16 had a clinically diagnosable mental health problem. In 2017-18 18,870 children under the age of 11 were referred for specialist mental health support. This represents a rise of 5,183 (or by a third) since 2014-15 (BBC, 2018). Research suggests that half of all psychological disorders begin before the age of 14 years (Kessler et al., 2007), thus highlighting the need for early intervention. Mental health problems can reduce the likelihood of successfully completing education, securing employment, and engaging productively as a member of society, thus detrimentally impacting on life quality (Kieling et al., 2011). Worryingly, young men and boys represent the group at greatest risk of developing mental illness in one third of developed countries (World Health Organisation, 2014). According to the NSPCC approximately 1 in 6 adults in England experiences mental ill health and over 2 million children are estimated to be living with a parent who has a common mental health disorder (<https://www.nspcc.org.uk>).

The problem is not unique to England, or even the UK and the causes of mental ill health are multi-faceted:

A growing body of evidence, mainly from high-income countries, has shown that there is a strong socioeconomic gradient in mental health, with people of lower socioeconomic status



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having a higher likelihood of developing and experiencing mental health problems. In other words, social inequalities in society are strongly linked to mental health inequalities.

(Mental Health Foundation, 2016: 57)

Thus, socio-economic disadvantage acts as a psychosocial stressor and can have a detrimental impact on young people's mental health and well-being. It reduces the ability of young people to participate in activities with their peers. It is also associated with worse parental mental health, which is, in turn, a strong risk factor for poor child mental health and well-being (Education Policy Institute, 2018). Additionally, adverse childhood experiences, have a known and significant effect on children and young people's mental health. These include trauma, poor attachment, parental alcohol and drug abuse, domestic violence, neglect and abuse (House of Commons, 2018). School factors also play a role. Evidence suggests that young people who are excluded from school or in alternative provision are more likely to have a mental health need than children not in alternative provision (IPPR, 2017). High-stakes exams can also have adverse effects on young people's mental health and well-being (House of Commons, 2018). Additionally, lack of curriculum choice, particularly in secondary school, can increase stress and reduce self-esteem (House of Commons, 2018).

The Department for Education (DfE) and the Department of Health (DoH) recently published a joint Green Paper entitled, *Transforming Children and Young People's Mental Health Provision* (December 2017). Within the Green Paper both departments express a commitment to working together to improve mental health services for children and young people, especially within the school environment. The role that schools and colleges can play is also highlighted:

There is clear evidence that schools and colleges can, and do, play a vital role in identifying mental health needs at an early stage, referring young people to specialist support and working jointly with others to support young people experiencing problems

(DfE/DoH, 2017:4).

According to the Green Paper, the two departments '...want to put schools and colleges at the heart of our efforts to intervene early and prevent problems escalating' (DfE/DoH, 2017:3). To help them do this they have committed £1.4 billion over the next five years to young people's mental health. The Green Paper proposes that every school and college should have a Designated Senior Lead who is responsible for mental health. Additionally, there are proposals to introduce Mental Health Support Teams into schools to provide support with identifying needs and intervention. Specific risk groups are identified. These include those who are looked after, those who identify as Lesbian, Gay, Bisexual and Transgender (LGBT), those in gangs and those not in education, employment or training (DfE / DoH, 2017). According to the Green Paper 'Children with a persistent mental health problem face unequal chances in life. This is one of the burning injustices of our time' (DfE / DoH, 2017, p.6). It is estimated that 850,000 children and young people experience a mental health need (DfE/DoH, 2017). Access to support is variable across the country and, for many, the support comes too late. Additionally, many children and young people do not meet the threshold criteria for a successful referral to Child and Adolescent Mental Health Services and within this context the role of schools in identifying needs early and providing early intervention is critical.

Common mental health needs in adolescents include anxiety, stress, depression, self-harm, substance misuse, conduct disorders and eating disorders. This is an illustrative rather than exhaustive list. Young people lead very different lives to previous generations and this may account for the apparent increase



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in young people with mental health needs. For example, many young people now live their lives online. Research suggests that excessive internet use can have a detrimental impact on life satisfaction (OECD, 2016). The Office for National Statistics has also found an association between longer time spent on social media and mental health problems; young people who engage with social networking sites for three or more hours per day experience more symptoms of mental ill health compared those who spend no time on social networking sites (ONS, 2015). Research suggests that young people who are heavy users of social media are more likely to report poor mental health, including psychological distress (RSPH, 2017) than those who use it less frequently. The relationship between social media use and low body-esteem has been established in the literature (British Youth Council, 2017). Additionally, 70% of young people have experienced cyberbullying and 37% of young people experience it frequently (RSPH, 2017). Whilst social media can facilitate numerous benefits, including the benefits of peer interaction, access to information and advice, it can also facilitate direct exposure to a range of risks, including content which is dangerous and life-threatening. Examples include exposure to content which promotes self-harm and suicide.

The relationship between physical activity and mental health

Both the physical and mental health benefits of engaging in physical activity for adults as well as children and young people, are well documented and widely and internationally accepted (Ahmed et al., 2016; Hyndman, et al., 2017; McMahon et al., 2017; Yun et al., 2017). Sport can enhance social and emotional functioning, health-related quality of life, and develop protective factors including self-esteem, positive social relationships, and well-being (Fraser-Thomas and Côté, 2009; Holt, 2016; Holt et al., 2017). Breslin et al., (2016) explored connections between moderate to vigorous intensity physical activity (MVPA) and the well-being of children aged 8 and 9 in Ireland from socially disadvantaged backgrounds. They concluded that:

Children who met the MVPA guidelines had higher well-being scores than those children who did not. Specifically, every dimension of well-being was significantly associated with MVPA; physical well-being, psychological well-being, parent relations and autonomy, social support and school environment.

(Breslin et al., 2016: 12)

Research by McMahon et al., (2017: 120) in their study looking at European adolescence and physical activity concluded ‘...that moderately increasing activity in inactive adolescents could result in a meaningful improvement in well-being.’

Whilst Cambridge United’s Mind Your Head project was not a physical activity intervention per se, the Mind your Head programme was designed to highlight the role of physical activity in improving mental health. Additionally, the programme was delivered by sports professionals from Cambridge United Community Trust and included the perspectives of significant sports people who talked about how they had managed their own mental health. Using sports people as champions of mental health in this way helps to break down stigma and increase young people’s motivation to engage in physical activity. Recent research of this nature has focused on the role of elite athletes as mental health champions (Coyle et al, 2017). However, Swann et al (2018) highlighted the need to increase the participation of grassroots sport in supporting young people’s mental health, including community sport organisations. This project was designed to address this research gap.



Mental health literacy

The term mental health literacy was first introduced in 1997 by Jorm et al and is defined as ‘knowledge and beliefs about mental disorders which aid their recognition, management and prevention’ (Jorm, et al, 1997). It is known that young people in particular have low levels of mental health literacy i.e. they have difficulties in identifying mental disorders and their underlying causes, risk factors, and associated protective factors, and can develop incorrect beliefs about the effectiveness of therapeutic interventions (Jorm et al, 2006; Kelly et al, 2007). Additionally, the stigma associated with mental health problems becomes apparent to people at an early age (Campos et al, 2018). However, research suggests that the attitudes of young people can be changed more easily than those of adults (Corrigan and Watson, 2007) and therefore schools can play a critical role in improving young people’s mental health literacy through the introduction of programmes which are specifically designed to develop young people’s knowledge about mental health and shape the development of positive attitudes towards it, thus reducing stigma. Research has demonstrated that young women have higher levels of mental health literacy than boys (Martínez-Zambrano et al, 2013). This highlights the need for boys to access mental health literacy programmes.

Improved mental health literacy should enable individuals to understand how to obtain and maintain good mental health and provides knowledge of mental illnesses and their treatments (Kutcher et al, 2016). Thus, it might be expected that improved mental health literacy decreases stigma and enhances help-seeking behaviours for mental health concerns, thus leading to improved mental health (Kutcher et al., 2015). Research demonstrates that those who benefit from mental health literacy programmes are more likely to seek help (including self-help) for their mental health problems and more likely to help others with mental health problems (Campos et al, 2018), thus demonstrating the important role that greater mental health literacy can lead to improvements in mental health.

Aims and methods of delivery

It is important to note that Mind Your Head, the educational work in schools by Cambridge United Community Trust, does not specifically seek to tackle symptoms of mental ill-health. In particular Mind Your Head is not targeted at the typically more severe mental illnesses such as psychosis and eating disorders. Whilst these aspects of mental ill-health may be tangential to Mind Your Head they are beyond the capabilities of such a programme to address.

Mind Your Head consists of six one-hour lessons delivered over six weeks to students in their school. In almost all cases the students participating were not selected – full year groups participated – and therefore do not necessarily have any prior history with mental health problems.

The themes of the six lessons in Mind Your Head are:

1. Introduction to mental health, resilience and well-being
2. Recognising the signs of mental health concerns
3. The benefits of talking
4. Social media and its impact on our well-being
5. Coping with stress
6. Collaboration and community



MIND YOUR HEAD

Mind Your Head was designed in partnership with Centre 33, a Cambridge-based youth counselling and mental health charity. Mind Your Head uses a student-centred approach to active and collaborative learning as well as incorporating engaging video content from Cambridge United's professional men's and women's footballers as well as Cambridge United scholars (16-18 year old aspiring professionals). This video content involves the footballers talking about the main issue of the lesson with regards to their own experiences helping to provide a relatable role model discussing mental health issues in a relaxed environment.

The aim of Cambridge United Community Trust's Mind Your Head programme is to work with young people in Cambridge to:

- a) increase young people's knowledge about mental health;
- b) improve resilience among young people;
- c) enthuse young people to understand the importance of mental health, resilience and well-being through leveraging the social power of professional football.

To attempt to achieve these aims lessons were delivered on mental health, resilience and well-being training across six Cambridge schools and with Cambridge United Football Club's scholars – 16-18 year old aspiring professionals – from January to July 2018.

Schools

The following table shows the schools and students who participated in Mind Your Head from January to July 2018:

School	Participating students	Year Group
CUFC Scholars	Scholars	Age 16-18 (Year 12-13)
School 1	Whole Year	Age 12-13 (Year 8)
School 2	Whole Year	Age 13-15 (Year 9 & 10)
School 3	Whole Year	Age 12-13 (Year 8)
School 4	Targeted	Age 12-14 (Year 8 & 9)
School 5	Whole Year	Age 12-13 (Year 8)
School 6	Whole Year	Age 12-13 (Year 8)

Evaluation design

The monitoring and evaluation of Mind Your Head consists of both quantitative and qualitative analysis of the effectiveness of the programme in meeting its key short-term measurable goal of increasing young people's mental health literacy.

Mind Your Head is evaluated independently by the Carnegie Centre of Excellence for Mental Health in Schools at Leeds Beckett University.



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The quantitative evaluation consisted of identical pre and post-programme Likert-scale questionnaires (Appendix 1) with programme participants. The anonymous questionnaires gather data on demographic information including gender, age and ethnicity, self-reported well-being and mental health literacy. The survey used can be seen in Appendix 1.

The self-reported well-being is measured using the Warwick-Edinburgh Mental Well-being Scale.¹ This measurement is supported by Public Health England.² The mental health literacy of participants is measured using an adaptation of the Mental Health Literacy Scale developed by O'Connor and Casey (2015). This aims to assess both stigma measures and knowledge measures around mental health. The adaptations to O'Connor and Casey's work have removed questions asking about specific, and often complex, mental health disorders as well as questions that were inappropriate for the age-group e.g. around employment. Questions have been added asking about the participants' sense of their own resilience, strategies for stress and social media use to link the questionnaire to the programme of lessons.

Mind Your Head's outcome variable is Mental Health Literacy and the effect of the programme is assessed by positively affecting this variable. The well-being measure is unlikely to be affected over a six-week period and therefore this is measured to assess any impact and correlations without necessarily expecting any and therefore little change is expected in this measurement.

Qualitative data were collected using focus groups with students in each of the participating schools (Appendix 2). Individual semi-structured interviews were also conducted with teachers within each school (Appendix 2).

¹ <https://warwick.ac.uk/fac/med/research/platform/wemwbs/>

²

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/611494/Measuring_mental_well-being_in_children_and_young_people.pdf



Quantitative Data

Data collection, entry and cleaning processes

The survey was administered by Cambridge United Community Trust staff. The pre-programme survey was given to students to complete in the first lesson after the course deliverer had introduced themselves but before any content had been delivered. The post-programme survey was administered at the end of the final lesson. Students were not forced to fill out any aspect of the survey although were encouraged to fill it out.

The surveys were then collected and grouped together by school and whether they were pre or post-programme surveys. The surveys were then entered electronically by Cambridge United Community Trust staff which collected all of the information entered on the survey. Each individual survey was assigned a Unique ID that was marked on the original survey form and stored electronically so that each survey could easily be checked against the original document. The electronic records also provided those entering the data a field with which to express any errors they believed to have occurred such as missing questions.

The data was cleaned by a separate member of Cambridge United Community Trust staff. Surveys with missing questions were dealt with in the following way: any missing demographic data was entered as ‘none entered’; where either one or two questions on the well-being questionnaire were unanswered the average score of the other questions was entered; where either one or two questions on the mental health literacy questionnaire were unanswered the middle score (3) was entered; where more than two questions on either questionnaire were unanswered the survey was excluded from the dataset. Surveys with an unusual pattern of response (e.g. all questions answered with the same response) were deemed eligible if under the well-being questionnaire as this was a reasonable response to the questionnaire. However, they were deemed ineligible if under the mental health literacy questionnaire due to several of the questions being reversed on the Likert scale (a greater degree of mental health literacy being associated with a lower Likert score) making a uniform response to the mental health literacy questionnaire an inconsistent and likely confused response.

The majority of survey responses that were removed were removed due to missing more than two questions from one of the two questionnaires and a small number were removed due to uniform response on the mental health literacy questionnaire. Marginally more post-programme surveys were removed than pre-programme surveys.

The ethnicity category also required a degree of cleaning. Despite specific categories being given on the survey the raw data collected included descriptions of categories such as “African” which was cleaned into “Black/African/Caribbean” and also entries such as “Hispanic” which was included under “Any other”



Overall descriptive statistics

The total number of valid surveys administered and included in the data analysis below was 1064. Of these, 557 are pre-programme surveys and 507 are post-programme surveys. The discrepancy between the two figures is mainly due to a higher preponderance of invalid post-programme surveys as well as students who had not attended all the sessions not completing post-programme surveys. Furthermore, in one school, School 5, several students were unfortunately not present in the final lesson.

The different schools, groups of students and age-groups are listed in Table 1.

Table 1 - Number of Pre and Post-Programme Surveys by School Type

School	Students	Year Group	Pre-surveys (N)	Post-surveys (N)
CUFC Scholars	Scholars	Age 16-18	14	11
School 1	Whole Year	Year 8	177	174
School 2	Whole Year	Year 9 & 10	133	127
School 3	Whole Year	Year 8	49	41
School 4	Targeted	Year 8 & 9	16	10
School 5	Whole Year	Year 8	109	91
School 6	Whole Year	Year 8	59	53
Total			557	507

Source: All tables and graphs are from Cambridge United Community Trust Data unless explicitly stated as otherwise.

The gender and ethnicity profile of the data is displayed in Table 2.³ This shows that 69.2% of the respondents self-identified as white and 30.8% as anything else with the most common categories being ‘Asian/Asian British’ (14.9%) and ‘Mixed/Multiple Ethnic Groups’ (9.5%). Of all valid surveys completed 49.5% (527) listed their gender as female, 50.2% (534) were male and 0.3% (3) as ‘other’.

Table 2 - Ethnicity and Gender of Survey Respondents

Ethnicity	M Pre N	M Post N	F Pre N	F Post N	% Total
Any other	1	0	5	6	1.1%
Asian/Asian British	43	41	37	37	14.9%
Black/African/Caribbean	11	13	13	14	4.8%
Mixed/Multiple Ethnic groups	26	17	27	31	9.5%
None Entered	2	0	2	1	0.5%
White	204	176	184	170	69.2%
Total	287	247	268	259	

³ Note that the discrepancy in total numbers of surveys is due to 3 respondents (2 pre-programme and 1 post-programme) indicating that they did not want their gender recorded.



Measuring mental health literacy

The measurement of mental health literacy, a 14-question Likert scale, produces 14 data-points per survey that were marked between 1 and 5 with 1 showing the lowest degree of mental health literacy and 5 the highest. One aspect of the mental health literacy survey is that seven of the questions were ‘reversed’ e.g. a low Likert score indicated high mental health literacy; these were reversed before scores were given. 14 questions therefore produced scores between 14 and 70. To transform this into a meaningful measurement the score between 14 and 70 was expressed as a percentage of the possible score. The calculation for this is listed below and for example a score of 42 would produce a mental health literacy percentage of 50%.⁴

$$(1) \text{Mental health literacy percentage} = \frac{\text{Likert Scale Score} - 14}{(70 - 14)} \times 100$$

The well-being scores were transformed into well-being percentages similarly.

There was a possibility that the mental health literacy scores would be affected by the ‘reversed’ mental health literacy questions if respondents failed to recognise the questions had been reversed. To assess this the difference between the average score on the ‘normal’ questions and the ‘reversed’ questions was analysed. This showed that on average ‘normal’ questions produced mental health literacy percentages 0.47% higher than subverted questions; this marginal difference shows that any effect of the ‘reversed’ questions was not large.

Programme effect on mental health literacy

The overall change in mental health literacy from pre-programme surveys to post-programme surveys was 66.7% (N=557) to 72.4% (N=507). On average this represents an improvement of 5.6 percentage points in mental health literacy or an 8.4% increase from baseline.⁵ A further way of understanding this change is to compare the maximum possible improvement with what the programme achieved. From a baseline of 66.7% mental health literacy on average the programme could have achieved a maximum 33.3 percentage point increase in mental health literacy were all students to achieve perfect scores after the programme. Given the 5.6 percentage point increase achieved, 16.9% of the maximum possible increase in mental health literacy was achieved through the programme on average.

An independent samples t-test indicated that the difference between the means for the pre-programme mental health literacy score and the post-programme mental health literacy score was statistically significant; this is true whether equal variances are assumed or not.⁶

The distribution of mental health literacy scores within surveyed students can be seen in Figure 1. This shows that before the programme 12.0% of students score above 80% for mental health literacy whereas

⁴ This is intuitively correct as 42 is equal to 14 multiplied by 3 where 3 was the middle score between 1 and 5 on the Likert scale.

⁵ Slight discrepancies are due to rounding.

⁶ Due to the data not being matched between pre and post-programme surveys a paired samples t-test is inappropriate.



after the programme this figure rises to 30.2%. This means that the programme increased the proportion of students scoring above 80% for mental health literacy by 2.5 times. Similarly, those scoring above 90% increased from 2.0% pre-programme to 6.7% post-programme; an increase by a factor of greater than 3.3 times.

The impact of the programme can also be analysed by gender and ethnicity. The data is provided in Table 3.

Table 3 shows that female participants started with a higher mental health literacy score than male participants on average (67.4% and 66.0% respectively). Female participants also saw a greater increase both in percentage point change (6.0% compared to 5.3%) and in proportion of maximum change achieved (18.5% compared to 15.4%). This is perhaps a surprising finding due to the programme being delivered by a football club; a sport which has traditionally been more associated in the United Kingdom with boys than girls.

Figure 1 - Distribution of Mental Health Literacy Scores

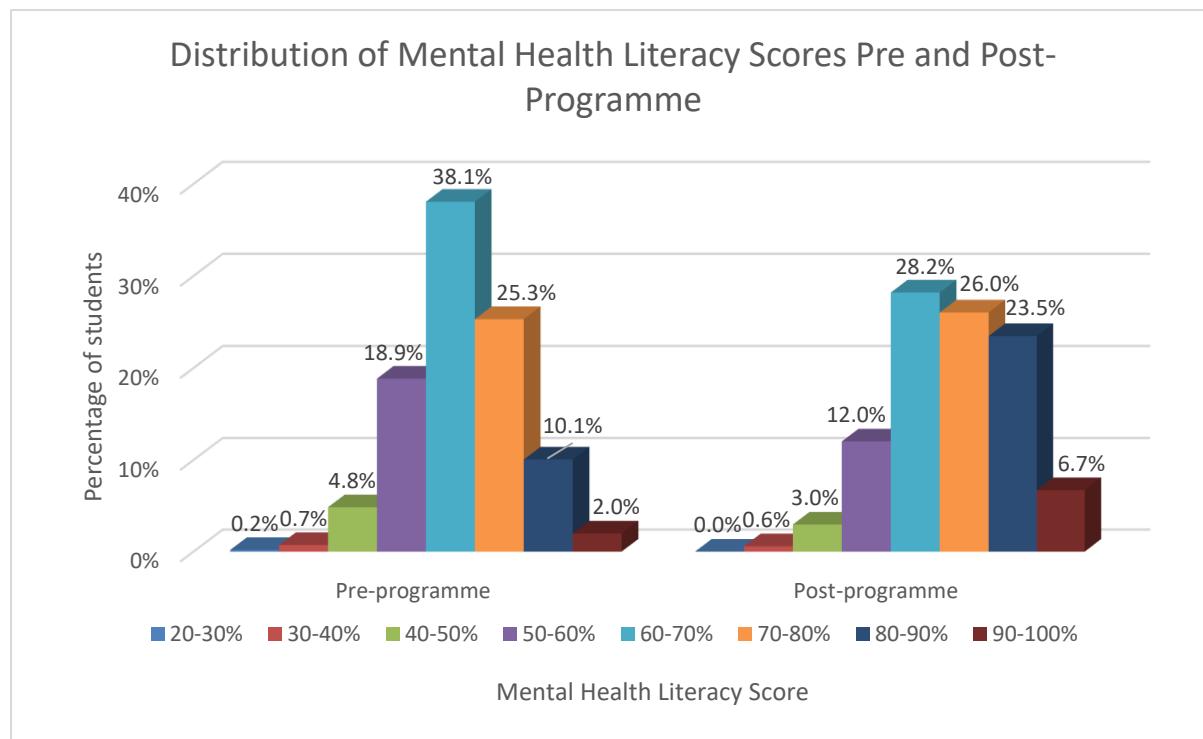


Table 3 also shows that students who identified as white start with a higher mental health literacy percentage (67.3% overall) than other ethnicities; this is true both overall and for both genders listed. The average initial mental health literacy of other ethnicities is as follows: 'Asian/Asian British' second highest (66.7%), then 'Mixed/Multiple Ethnic Groups' (65.9%) and 'Black/African/Caribbean' start quite a bit lower (61.8%). Overall aggregated non-white ethnic groups have initial mental health literacy scores of 65.4%. The improvement from pre-programme to post-programme occurs relatively evenly for both white and non-white ethnicities. Overall those identifying as white increased 5.8 percentage



points and those identifying as non-white by 5.5 percentage points. Males were more similar between white and non-white categories (5.3 and 5.2 percentage points respectively) than females where the gap was 6.3 percentage point improvement for those identifying as white and 5.7 percentage point improvement for those identifying as non-white as an aggregate group. The scores of boys identifying as 'Black/African/Caribbean' are particularly relatively low both initially (59.3%) and at the end of the programme (61.0%) representing the lowest percentage point increase across all gender and ethnic groups from pre to post-programme (1.7 percentage points). This contrasts with boys identifying as 'Mixed/Multiple Ethnic groups' starting slightly low on 64.3% but increasing significantly to 72.3% (8.0 percentage points) the highest increase of all gender and ethnic groups across the programme delivery.

The data displayed in Table 3 shows that Mind Your Head provides effectiveness across both genders listed and all ethnicities. The programme seems to be marginally more effective with those identifying as white and those identifying as female. The reason for the lower scores of those identifying as 'Black/African/Caribbean' is uncertain.

Table 3 - Mental Health Literacy Scores by Gender and Ethnicity⁷

Gender/Ethnicity	Pre	Post	% Point Change	% of Max Change
Female (F)	67.4%	73.4%	6.0%	18.5%
Asian/Asian British F	67.3%	71.3%	4.0%	12.1%
Black/African/Caribbean F	64.0%	70.0%	6.0%	16.7%
Mixed/Multiple Ethnic groups F	66.5%	72.5%	5.9%	17.7%
White F	68.0%	74.4%	6.3%	19.8%
All Non-white F	66.1%	71.9%	5.7%	16.9%
Male (M)	66.0%	71.2%	5.3%	15.4%
Asian/Asian British M	66.1%	71.3%	5.2%	15.3%
Black/African/Caribbean M	59.3%	61.0%	1.7%	4.3%
Mixed/Multiple Ethnic groups M	64.3%	72.3%	8.0%	22.4%
White M	66.6%	71.9%	5.3%	15.8%
All Non-white M	64.4%	69.6%	5.2%	14.7%
All Genders				
Asian/Asian British	66.7%	71.3%	4.6%	13.8%
Black/African/Caribbean	61.8%	65.7%	3.8%	10.1%
Mixed/Multiple Ethnic groups	65.9%	72.4%	6.6%	19.3%
White	67.3%	73.1%	5.8%	17.7%
Non-White	65.4%	70.9%	5.5%	15.9%

⁷ Note that N for each category can be seen in Table 2.



Impact on self-reported well-being

As expected for a 6-week programme the movement in self-reported well-being was minimal and all statistically insignificant. The average movement was from 62.9% to 62.8% which is statistically insignificant. Females moved from 61.7% to 61.0% and males from 64.0% to 64.6% neither of which are statistically significant. Those identifying as white moved from 63.0% to 62.4% and non-white from 62.4% to 63.7% both also statistically insignificant.

Initial well-being scores can also be correlated to initial mental-health literacy scores.⁸ The association between the two was positive with the regression equation from the univariate analysis found to be:

$$\text{Initial wellbeing percentage} = 0.36 + (0.40 \times \text{Initial mental health literacy percentage})^9$$

The coefficient for mental health literacy percentage's impact on well-being is statistically significant and this remains true when controlling for gender and ethnicity. Being female also has a small statistically significant negative impact on well-being when mental health literacy and ethnicity is controlled for and ethnicity has a near-zero, statistically insignificant effect.¹⁰

Individual mental health literacy questions

Changes in the average response to individual questions in the mental health literacy questionnaire can also be analysed. With this we find that knowledge related questions in particular score large-differences. This can be seen in Table 4.¹¹ Therefore, all questions move in the anticipated direction towards greater mental health literacy on average apart from question 11. The questions with large increases include increasing understanding of dealing with stress, causes of poor mental health and recognising the signs of poor mental health. Questions with lower scores, although still improving, focus more around stigma. The one question with a change not in the anticipated direction was around seeking help from a mental health professional if the individual responding believe that they had a mental health illness. This is an interesting response and could be caused by participants not wanting to see a medical professional. However, it could also be due to a new understanding of mental illness and when medical help is needed as a result of the programme. Either way the impact is relatively small.

⁸ Comparing post-programme scores would not necessarily make sense but comparing individual change would were the data to have been tracked individually across pre and post-programme surveys.

⁹ Note that this assumed well-being is the dependent variable and mental health literacy is the independent variable; this is subject to debate and argument.

¹⁰ These regressions should be treated as indicative of relationships as opposed to statistically establishing relationships because the regressions are by no means fully specified. There are many further variables that one would want to include were the data collected such as socioeconomic information of the individual's household etc.

¹¹ The data in Table 4 have been calculated so an increase in score is always associated with increasing mental health literacy even when the Likert-scale was reversed in the raw question.



Table 4 - Average Change in Mental Health Literacy Question Response sorted by percentage of maximum change achieved

Question Number	Question	Percentage Point Change	% of Maximum Change
4	I know strategies for dealing with stress.	15.1%	36.8%
1	I am knowledgeable about the causes of poor mental health.	12.3%	35.1%
3	I recognise the signs of poor mental health.	12.4%	31.5%
14	I am confident that I know where to seek information about mental illness.	12.4%	30.8%
2	I know strategies to help me to be resilient when faced with difficult situations.	9.5%	26.6%
5	I understand how social media impacts on my well-being.	4.6%	17.0%
7	A mental illness is a sign of personal weakness.	8.8%	13.4%
8	People with a mental illness are dangerous.	7.5%	10.4%
9	I am willing to make friends with someone with a mental illness.	1.6%	7.0%
13	People with a mental illness could snap out of it if they wanted.	5.0%	6.9%
12	Seeing a mental health professional means you are not strong enough to manage your own difficulties.	4.1%	5.3%
10	If I had a mental illness I would not tell anyone.	2.6%	4.3%
6	A mental illness is not a real medical illness.	1.6%	2.5%
11	If I had a mental illness, I would not seek help from a mental health professional.	-1.8%	-2.8%



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Qualitative Data

Overall themes from the qualitative data

The qualitative data were taken from focus groups conducted after the conclusion of the Mind Your Head programme. These data were coded, and key themes were identified. These are summarised below.

What is mental health?

Student participants demonstrated a good understanding of the differences between mental health and mental illness. They also understood that mental health exists along a continuum and that mental health can change depending on one's circumstances:

Everyone has mental health and it is not the same as mental illness. (Student, Y9)

To me mental health is understanding my own feelings, being healthy in my mind and physically healthy. (Student, Y8)

Mental health can change from one minute to the next. (Student, Y8)

Mental health is good and bad. Poor mental health for example is when someone is feeling depressed. But depression is not the same as just feeling a little bit sad. When you are depressed it can stop you doing things, like you might not want to get out of bed. (Student, Y9)

Depression is not the same as sadness. I have been depressed and it stopped me from going into school. It made me have anger problems. My grades went down. Depression is a form of mental illness. (Student, Y9)

Now I know the signs of depression, such as sleeplessness. (Student, Y8)

Teachers who had observed the delivery of Mind Your Head highlighted that the programme was particularly valuable in terms of raising students' general awareness of the extent of mental ill health:

Students now understand that the majority of people experience mental health issues at some point in their lives. They know they are not the only one to feel like this. (Teacher, School 1)

They are now aware there are many people in the same situation and that they are not the only person to have experienced how they are feeling. (Teacher, School 4)

Ways of improving mental health

Student participants demonstrated an understanding of how they could influence their own mental health. They recognised that poor mental health is not a fixed attribute and they had learned some simple, yet effective, strategies to support them in becoming mentally healthy. Some students highlighted a distrust of teachers. They felt that teachers would not uphold confidentiality and would pass the information on to other teachers or their parents. The majority of student participants preferred



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to speak to their friends about their feelings. Many students were able to articulate the relationship between physical activity and mental health:

There are ways to improve your mental health. You can talk to people who are close to you. If you have a schedule, then it keeps you more organised. Then you don't get stressed. (Student, Y9)

It is really important to talk to other people. If you don't let your emotions out it will just get worse. Sometimes it is easier to talk to parents than a teacher or you can talk to people that you trust. You can also talk to your siblings. You don't have a deeply personal connection with your teachers like you have with your friends, so it is easier to talk to friends. (Student, Y9)

It's important to talk to someone about your worries. If not, this will make your thoughts and feelings worse and can lead to serious situations for some people. (Student, Y9)

Listening to music and taking walks helps to de-stress me. (Student, Y8)

I don't want to talk to a teacher because they might tell your parents. Everyone will find out. I would rather talk to a friend. Young people are going through changes like puberty which can be stressful (Student, Y8).

Being able to open up within my peer group and to be approachable to others who are not coping. (Student, Y9)

It is very important to talk to others about worries, stress and anxiety. Talking does help with your well-being (Student, Y8).

Stress

Student participants were able to identify a range of strategies to alleviate stress. These included listening to music, engaging in physical activity, meditation and watching television. Some students recognised that stress is not always a negative attribute. They were able to identify ways in which stress helped them to be productive and to achieve goals. Students recognised that stress was a normal part of daily life and that eliminating stress from their lives might lead to a lack of productivity. Some students were also able to differentiate between stress and anxiety:

There are things that you can do to manage stress. Stress can be a good thing. It can help you to improve your performance. If you think of stress in a negative way, then it can start to affect your sleep. (Student, Y9)

If you are feeling stressed, you can do things to help. You can talk to a teacher, go for a walk, listen to music. Stress can be good and bad at the same time. (Student, Y8)

If you use your energy through exercise it can help you to manage your stress. You can do something else like watch TV to take your mind off it. Sometimes you can be stressed when there are too many deadlines, but you can try to get things done rather than letting things stack up. (Student, Y9)

I used to break mirrors or punch walls when I was upset and stressed. Now I try to take time out and remove myself from stressful situations so that I can think about how to deal with it. (Student, Y8).



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If we are stressed, we can relieve this through meditation or knowing someone else is able to help you. (Student, Y8)

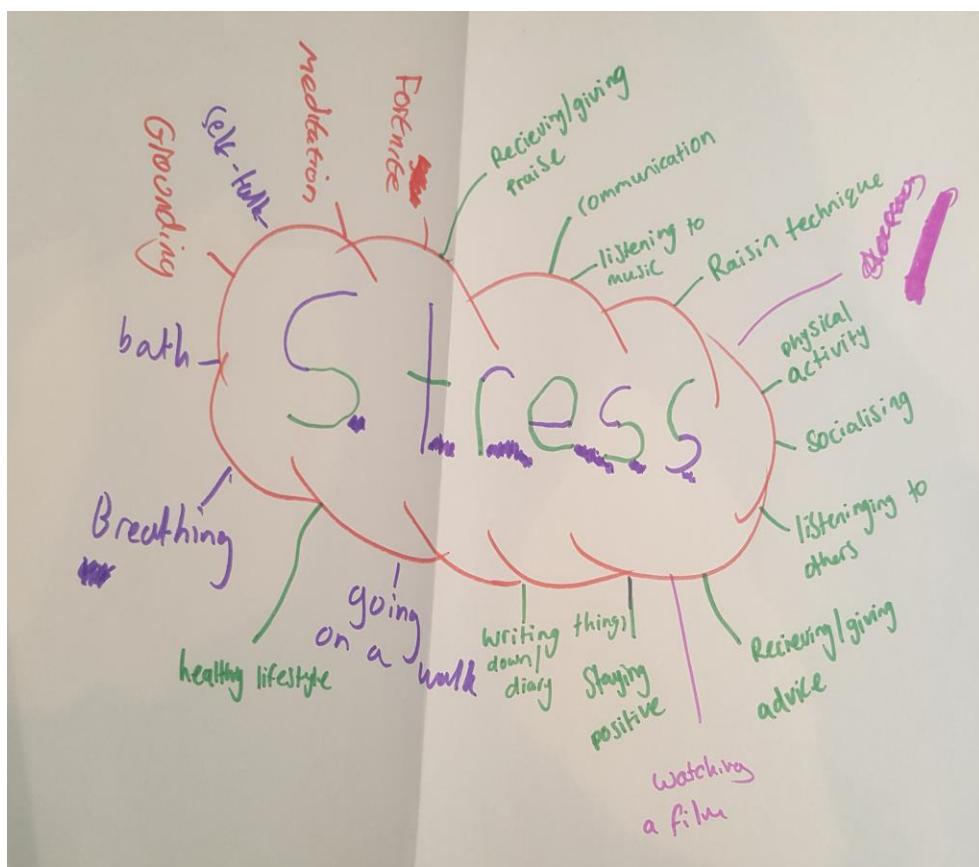
I think stress isn't always bad as we face stress through completing essays / homework which we need to experience to handle stress. (Student, Y8)

For me to handle stress is to keep calm, take breathing exercises and do physical activities which helps towards good mental health. (Student, Y8)

Anxiety can make you lack confidence and it can make you feel scared. (Student, Y8)

Stress can make you feel tired. You could learn how to play a musical instrument because it takes your mind off everything else. (Student, Y9)

Figure 2 – Student Mind Map on Ways of Managing Stress



Source: Materials produced by students participating in Mind Your Head

Vulnerable groups

After participating in the programme all students could identify vulnerable groups who are at risk of developing mental ill health. They were also able to discuss why individuals in these groups are vulnerable. For example, they recognised that the pressures on athletes to perform to a high standard



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might result in stress and anxiety and that athletes who are injured and unable to participate in their sport might be at risk of developing depression. The students were all able to identify the LGBT+ group as a vulnerable group due to prejudice and discrimination which exists within society. Some students were able to articulate ways in which gender stereotypes might prevent males from expressing their feelings, for example, the expectation that males should be 'tough' and 'hard' rather than 'soft':

There are some groups that are more prone to developing poor mental health such as LGBT, males and athletes. (Student, Y8)

It is harder for men because if they get too emotional they might feel like they should not be doing that. Men sometimes think they have to be strong. This comes from stereotypes. (Student, Y8)

There are different kinds of people who are vulnerable to mental illness. For young people, things are challenging because everything is new to us like building relationships for the first time. (Student, Y9)

Athletes can get injured and this can make them stressed and they may worry they are letting down their team and supporters. They have a lot of pressure to perform so they can get stressed. LGBTQ people are at risk because some people think they are different. (Student, Y9)

Teacher participants perceived that the programme had increased students' knowledge of groups in society that are vulnerable to mental ill health:

Students are articulate about gender issues and knowledgeable of highlighting the issues of vulnerable groups. (Teacher, School 2).

Students are now able to identify vulnerable groups. The male students in particular have benefitted because they now know that it is okay for them to be upset and to express their feelings and many of them have done so'. (Teacher, School 3).

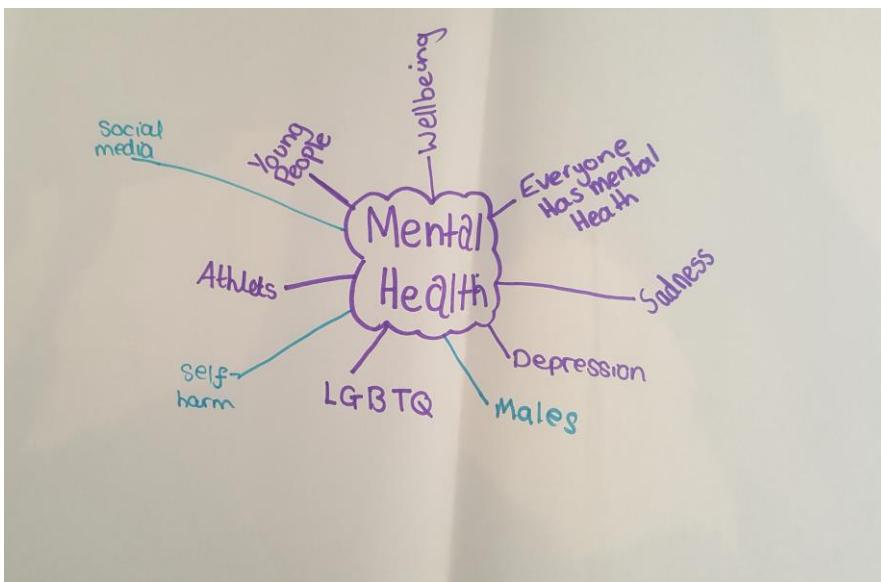
The students appeared to demonstrate empathy for the vulnerable groups, particularly in relation to those who identify as LGBT. They were able to identify ways of supporting their peers from this group:

Being approachable and supportive. Just being there to listen to their problems can help their mental health. (Student Y9)



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Figure 3- Student Mind Map on Vulnerable Groups



Source: Materials produced by students participating in Mind Your Head

Resilience

Student participants had developed a good understanding of the concept of ‘resilience’ through the programme, although nearly all students needed support to recall the ABC model of resilience that they had been introduced to. Student participants had understood the benefits of being resilient to adverse situations and the relationship between resilience and mindset:

Resilience is how well you get through obstacles or your ability to cope with problems. (Student, Y9)

Facing a situation that may be difficult but being able to see it through with the best outcome. (Student, Y9)

Resilience is when you don't give up and you keep going. You can bounce back from things like failing a test. Resilience helps you to achieve things. It changes your mindset into a positive mindset. (Student, Y8)

I have just found out that I am not being taken on by the Club to play professionally. I am disappointed. However, these sessions have helped me to be resilient and I know that I will end up doing something useful. I will use my skills in other ways. I am going to go to University instead. (CUFC Scholars)

Teacher participants perceived that the programme had enable the students to not only understand resilience but to become more resilient:

They have appreciated the session on resilience. They say that understanding resilience helps them cope in situation e.g. not achieving best grades. Many of them are responding better to negative experiences now after participating in this session. (Teacher, School 5)



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The students don't fall to pieces anymore when they get a low grade. They pick themselves up, dust themselves down and do better next time. (Teacher, School 2)

The sessions on social media have enabled them to become more digitally resilient. They now know how to deal with negative situations on line. (Teacher, School 1).

Social media

The students had developed an excellent understanding of the benefits of social media and the relationship between social media use and mental ill health, including sleep deprivation, cyberbullying and low body-esteem. They had also developed a better understanding of how to keep themselves safe online:

Social media helps you to communicate with your friends if they are far away. It makes you feel good when you get a like on your posts. (Student Y8)

You can talk to your friends and family on social media. The disadvantages are that you can get stalked. People can create fake accounts. You can get cyber-bullied. People can hack into other people's accounts and you might not know who is communicating with you. People can become jealous of other people's lives and this can make you sad and depressed. (Student Y9)

Some of the pictures can be fake so people can make out that they are leading an exciting life but really they are not and this can make others feel worthless. (Student Y8)

Social media results in an expectation to show the good part of your life. It can impact on others because they think you are having a good time and they might not be having such a good time. (Student Y9)

People make mean comments and it makes you feel bad. The bullying can be anonymous, and it reaches a larger audience. You can ignore the insults and carry on with your life. You can report the person or block them. (Student Y9)

Men are expected to be muscular. You get upset because you think 'why don't I look like that?' (Student Y8)

I realise that social media has an impact on my sleep. I find it addictive and I am always checking what friends are doing through social media and texting. (Student Y9)

I think online bullying is different to bullying in school. It is easier to say horrible things to someone through social media because you are not saying it to their face. (Student Y8)

We can become stressed through social media because celebrities show images of being slim. This mainly affects women but now men are becoming bothered about how they look. This is stress that becomes a mental health problem. (Student Y9)

You feel you have to look as good as celebrity people because people feel you need to be as good looking otherwise you don't get a good reputation. (Student Y8)

Cyber bullying is when you post hateful messages online to directly hurt a person. (Student Y8)

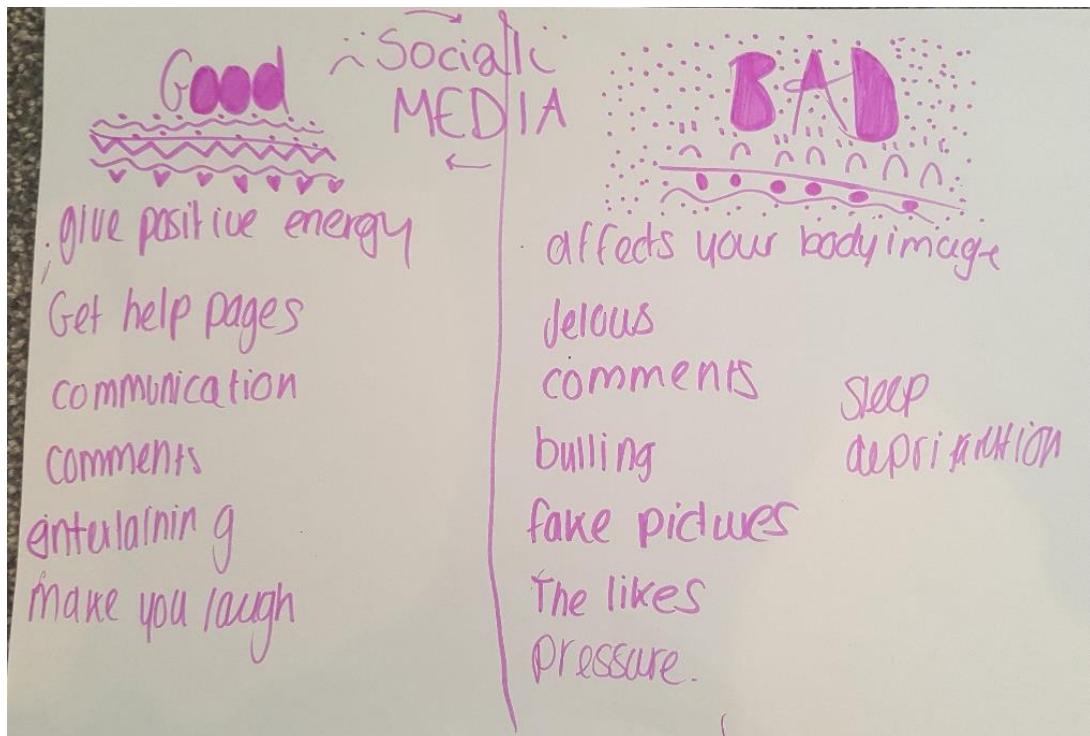
Seeing slim models online (body image) can make your self-esteem feel low. (Student Y8)



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Social media has its advantage that you can talk to other people positively about how you feel. Its disadvantages could be when someone is being stalked, snapchat maps shows your locations and cyber bullying through text messages. (Student Y8)

Figure 4 – Student Perceptions of Social Media Use



Source: Materials produced by students participating in Mind Your Head

Knowledge of how to help others

The student participants identified ways in which the programme had enabled them to support their peers:

Being approachable and supportive. Just being there to listen to their problems can help their mental health. (Student, Y8)

Listening to your friends without interrupting them is important. Even if I do not understand what they are going through I can just be there for them and listen to them. (Student, Y9)

I know how important it is to listen to others. If I don't know how to help them I can take them to someone else in the school who might be able to help them. (Student, Y9)



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I know it is important not to judge my friends if they are having problems. The sessions have helped me to listen and not to judge. They have helped me to be more supportive of others who are going through difficult times. (Student, Y9).

Best sessions

Students and teachers identified the most effective sessions from the programme:

I feel like the stress session was good because many people feel stressed. It was good because we got to eat a raisin and it was fun. (Student, Y8)

The way the sessions were approached was particularly effective. The examples given were great and the person delivering the session showed true understanding and empathy. The informal style of delivery really helped because it was not like a real lesson. It was less structured than a typical lesson and students enjoyed the discussions. (Teacher, School 4)

The best session was when someone talked about stress and that it isn't always bad. The students will experience stress during their GCSEs, which are getting more difficult, and other exams. Students now understand stress, how to handle it, how to take a step back, how to relax and so on. They now understand the importance of thinking things over and working out a solution for best outcome from that stressful period. Year 11 are faced with so much work load and pressures. Quite a lot of students at this point shut down and don't express or discuss their feelings. (Teacher, School 2)

The programme has helped students to cope with their emotions. They took on more understanding by listening to others and sharing experiences from other people. At the beginning students were quiet but as the lesson was less formal, this allowed them to open up and contribute to discussion (Teacher, School 6)

The sessions were perfect. The footballers talking, when they were sharing their feelings, that was the best bit. The videos were good. (Student, Y8).

The children learned to cope with their emotions. It engaged them in conversations and they learned more because it was not delivered by a teacher. The sessions were less formal than normal lessons, so they engaged well. (Teacher, School 3).

The videos of the football players were brilliant. It is massively important that we hear their stories because they are role models and we look up to them (CUFC Scholars)

Improvements to session delivery:

Teachers and students identified several ways of further enhancing the quality of the programme:

To have more stress relieving strategies to help me handle stressful situations. (Student, Y8)

I feel some of the information wasn't relevant to me personally. This made it difficult for me to understand the topics. (Student, Y8)



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More of a focus on people's stories of mental health such as someone's experiences of bullying in school. We can then listen to their experiences to understand what they went through and how they overcame it (Student, Y9)

More input on how to identify poor mental health early (Student, Y9)

Although students are taking part in these sessions, we should look beyond our students and think about including sessions for parents / guardians. Most students when asked who they would prefer to speak to in relation to mental health issues said that they would prefer to speak to their parents so sessions for parents would be good (Teacher, School 6).

Develop broader strategies to improve discussion where groups lack confidence with oral communication, such as expressing their feelings through posters. (Teacher, School 1)

Develop other ways to engage students in discussions e.g. matching definitions to terms (Teacher, School 3).



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Conclusions

The quantitative analysis demonstrated statistically significant improvements to students' mental health literacy across all genders and ethnicities, although there were some slight variations in the degree of improvement between different ethnic groups. Females demonstrated greater increases in mental health literacy than males. Changes in well-being were not statistically significant.

The qualitative data revealed a range of interesting findings. The adolescents broadly understood mental health to exist along a continuum from being mentally healthy to mentally ill. They perceived a range of mental health benefits from engagement in physical activity and they recognised other ways of improving their own mental health. Their mental health literacy improved as a result of participating in the programme. They were able to identify the signs of mental illness and they could describe ways of supporting others who experience mental ill health. They were able to identify population groups at risk of developing mental ill health. They could talk about the importance of being resilient in the face of adversity and they were able to identify the negative effects of social media and ways of keeping themselves safe online. They valued the opportunity to develop their awareness of mental health through listening to athletes speaking about their own issues. Sport participation was reported to have both positive (e.g., therapeutic) and negative (e.g., stressful) effects on mental health (pressure to perform, performance slumps, and having less time to socialise with friends). Whilst these benefits are acknowledged, the programme does not have a significant effect on well-being.

The schools were unanimously positive about the programme and its benefits on pupils' mental health literacy. In view of these findings we are confident that the programme could be replicated successfully in other schools.

Considering the research which demonstrates that improvements to mental health literacy can lead to an increased likelihood of engaging in help seeking behaviours for mental ill health and greater willingness to help others with mental health needs (Campos et al, 2018) it is possible that the programme delivered in Cambridge will lead to improvements in adolescent mental health.

Overall, Mind Your Head is clearly valued by pupils and schools and delivers measurable, statistically significant improvements in Mental Health Literacy across all genders and ethnicities.



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Appendix 1 - Surveys used with participants

1. School:

2. Form group

3. Date of birth:

4. School Year:

5. Gender, please circle one:

a. Female

b. Male

c. Any other, please describe:

6. Ethnicity, please circle one:

a. White

b. Mixed / Multiple Ethnic groups

c. Asian / Asian British

d. Black / African / Caribbean

e. Any other ethnic group, please describe:



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Well-being survey

Below are some statements about feelings and thoughts. Please tick the box that best describes your experience of each over the last 2 weeks.

STATEMENTS	None of the time	Rarely	Some of the time	Often	All of the time
I've been feeling optimistic about the future.					
I've been feeling useful.					
I've been feeling relaxed.					
I've been feeling interested in other people.					
I've had energy to spare.					
I've been dealing with problems well.					
I've been thinking clearly.					
I've been feeling good about myself.					
I've been feeling close to other people.					
I've been feeling confident.					
I've been able to make up my own mind about things.					
I've been feeling loved.					
I've been interested in new things.					
I've been feeling cheerful.					



Mental Health Literacy Survey

Please tick the box that best describes to what extent you agree with the following statements:

STATEMENTS	Strongly Disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
I am knowledgeable about the causes of poor mental health.					
I know strategies to help me to be resilient when faced with difficult situations.					
I recognise the signs of poor mental health.					
I know strategies for dealing with stress.					
I understand how social media impacts on my well-being.					
A mental illness is not a real medical illness.					
A mental illness is a sign of personal weakness.					
People with a mental illness are dangerous.					
I am willing to make friends with someone with a mental illness.					
If I had a mental illness I would not tell anyone.					
If I had a mental illness, I would not seek help from a mental health professional.					
Seeing a mental health professional means you are not strong enough to manage your own difficulties.					
People with a mental illness could snap out of it if they wanted.					
I am confident that I know where to seek information about mental illness.					



Appendix 2 – Focus group questions

Students

1. Did the sessions improve your knowledge of mental health? If so tell me how.
2. What did you learn about resilience?
3. Have you benefitted from learning about resilience? Say how.
4. What did you learn about social media and mental health?
5. Have you benefitted from learning about social media and mental health? Say how.
6. What did you learn about coping with stress and how has this helped you?
7. What did you learn about the value of talking to others?
8. What did you learn about the role of collaborating with others as a way of improving mental health?
9. What were the best sessions?
10. Which aspects of the programme could be improved and why?
11. Was there anything missing from the programme?

Focus group with the teachers / workshop leader:

1. What did the students learn from the programme?
2. Which aspects of the programme worked well? What were the best sessions?
3. Were there any sessions that were less effective? Say why.
4. Was anything missing from the programme?
5. What challenges did you face in delivering the programme?



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