Mental health promotion in the Internet age: a consultation with Australian young people to inform the design of an online mindfulness training programme

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SUMMARY

Mindfulness training (MT) has been shown to lead to significant improvements in psychological distress and emotion regulation skills. The Internet has many advantages as a medium for building emotional skills in young people. The aim of this study was to involve young people in designing an online MT programme. A draft programme was initially designed based on a review of the literature and an established face-to-face programme for medical students. Twenty young people were then recruited through online advertising and 13 (age 16–26) interviewed. They were asked to comment on how useful, easy to use and enjoyable they found the proposed programme and how the draft version and its planned evaluation strategy could be improved. Interviewee responses were independently processed by two of the authors within a qualitative thematic analysis paradigm. The results showed that young people were eager to engage with the design of this health promotion programme and provided valuable input. All interviewees believed that young people would find the programme desirable. They provided a variety of suggestions about how training structure and content could be improved, how best it could be evaluated and how young people could be encouraged to engage with and complete the programme. It thus appears that online MT is a feasible mental health promotion strategy for young people and that it can be evaluated in a controlled trial. The result of this consultation process was the Mindful Awareness Training and Education (MATE) programme, which has been detailed.

Key words: mental health promotion; mindfulness; Internet; young people

BACKGROUND

A focus on mental health and particularly individual mental and emotional skills has come to occupy an increasing priority within the overall health promotion effort in recent years (Patel et al., 2010). A participatory approach where young people are involved in optimizing the effectiveness of health promotion activities is a relatively new phenomenon that has increasingly been shown to have utility and feasibility (Powers and Tiffany, 2006). Young people or transitional age youth, variously defined as 12 or 14–25, form a critical target group for mental health promotion (Rowling and Walker, 2002). This argument is often made citing
statistics about the high incidence rate of mental disorder in this age group [e.g. >75% of all mental disorders begin before age 25 (Kessler et al., 2005)]. Keeping in mind broader goals of health promotion such as enabling individuals to realize optimal health and cope with adversity (Heggenhougen and Quah, 2008) it is important that efforts are made not only to deal with illness specifically but also to foster the development of individuals’ emotional skills.

**Why mindfulness?**

A key developmental challenge in young people is self regulation of emotions (Institute of Medicine, 2009). Adolescents with poor emotional control are twice as likely to develop depression as they grow into young adulthood (Patton et al., 2008). Emotional control thus appears to be a key mediator accounting for the rise in emotional difficulties or diagnosable mental disorders correlated with pubertal stage in adolescents (Patton et al., 2008).

Mindfulness training (MT) enhances individuals’ ability to be aware of their feelings and choose how intensely to engage with them (Brown et al., 2007). It is thus a particularly effective way to enhance the capacity of young people to regulate emotions (Chambers et al., 2009). This may help young people negotiate the vicissitudes of development and possibly lower the incidence of depressive or anxiety symptoms (Burke, 2010).

Mindfulness has been defined as ‘the awareness that emerges through paying attention on purpose, in the present moment, and non-judgmentally to the unfolding of experience moment by moment’ [(Kabat-Zinn, 2003), p. 145]. Greater awareness and equanimity, as paths to well-being, while emphasized in a great majority of Eastern and Western spiritual and philosophical traditions, comprise a central feature of Buddhist philosophy (Hassed, 2006). Mindfulness is a psychological trait that occurs without any training to a greater or lesser degree in all people and grows naturally with emotional maturation (Brown et al., 2007). As such, MT can be seen as a way of accelerating a normal maturational process (Mace, 2008).

Initially empirical research focussed on clinical samples and demonstrated, in the past three decades, an association between mindfulness meditation practice and mental and physical health disorders such as chronic pain, cancer, depression and anxiety in adults [reviewed in (Brown et al., 2007)] and anxiety, ADHD and PTSD in young people [reviewed in (Burke, 2010)].

In the 1980s and 1990s, empirical research in MT was severely hampered by small sample sizes, the use of limited or non-standardized measures, the lack of control groups or fidelity checks and an absence of blinding of assessors (Bishop, 2002). In parallel with an explosion in the sheer number of studies, improvements in methodological rigour have also occurred (Chiesa and Serretti, 2009a; Chiesa and Serreti, 2009b). Recently an increasing number of studies have reported benefits in measures of stress, symptoms of distress and emotion regulation ability in healthy adults [reviewed in (Chiesa and Serretti, 2009a; Chiesa and Serreti, 2009b)] and adolescents or young adults (Napoli et al., 2005; Wall, 2005; Saltzman and Goldin, 2008; Broderick and Metz, 2009; Campion and Rocco, 2009; Hassed et al., 2009; Huppert and Johnson, 2010). MT may yet prove to have its most powerful role as a tool in mental health promotion since: (i) it enhances skills in dealing with all experience, not just the symptoms of an illness and (ii) with the exception of intensive multi-day silent retreats—when undertaken by person with a fragile mental state—, there appear to be no adverse effects associated with MT (Haruki and Kaku, 2000; Mace, 2008). While programmes currently exist that aim to improve emotional regulation through means other than MT, they tend to be based on therapeutic models (esp. CBT) originally developed for ill populations which limits their applicability to the general population (Smyth and Arigo, 2009).

**Engaging potential users in Internet-based health promotion programme design**

Health promotion is more effective when the population of interest is engaged in programme design (Stacey and Herron, 2002) and this is particularly so where young people are concerned (Australian Research Alliance for Children and Youth, 2009). Professionals are faced not only with the challenge to make programmes consumer-friendly but also youth-friendly (Powers and Tiffany, 2006). There is a surge of interest currently in innovative modes of service delivery considering
only one-third of the 20% of Australians who suffer mental illness in any 1 year seek face-to-face mental health care (Slade et al., 2009). The Internet has proved to be an effective tool for building individual skills of interest to the mental health promotion effort (Lintonen et al., 2008). It provides a setting for the delivery of mental health interventions that is both relatively cheap and easily accessible (Christensen, 2007). Young people report that using the Internet to obtain information and support helps to dissolve some important barriers to seeking help such as stigma and loss of privacy (Burns et al., 2007). Internet-based health promotion for young people is both uniquely suited to and stands to gain significantly from a participatory research methodology (Flicker et al., 2008).

To our knowledge there is no current example of an online MT programme designed specifically for young people. K.M. initially designed a draft model, the Mindful Awareness Training and Evaluation (MATE) programme, which we aimed to improve through consultation with young people in this study and subsequently to offer and evaluate via Reachout.com: a youth-specific mental health promotion space. Between going live in 1998 and 2007 Reachout.com had recorded 7.3 million unique user visits (Burns et al., 2007). Fifty percent of Australian young people had heard of Reachout.com by 2009 and 80% of young people who had used the website found it helpful and would refer a friend to it (Burns et al., 2007). Following successful translation of the Australian model in Ireland, a US version became available in 2009. Involving young people in the design and evaluation of the website and all programmes featured thereon has been a key principle underpinning the development of Reachout.com throughout its history (Burns et al., 2007).

The programme was deliberately simple in design both to improve flexibility and usability (Nielsen, 2000) and to limit the need for specialized human resources and minimize costs. Core characteristics were based on a review of the literature and an established face-to-face programme for medical students [detailed in (Hassed, 2006)]. Using this programme as a cornerstone of a health enhancement course, Hassed et al. showed significant improvements in the psychological subscale of the WHO Quality-of-Life instrument (within group effect size of 0.18) and on the depression, hostility and global severity index subscales of the Hopkins symptom checklist (Hassed et al., 2009).

According to the Technology Acceptance Model (Davis et al., 1989) both the perceived usefulness and ease of use of a system or programme are likely to influence users’ engagement. This model has been revised in recent years to include perceived enjoyment as an intrinsic motivational influence (Legris et al., 2003). There is evidence that usefulness and enjoyment may explain most of the variance in participant engagement (Lee et al., 2005).

We aimed in this study to obtain views from young people about all three aspects (viz. usefulness, ease of use and enjoyment) of the proposed MATE programme as well as the planned evaluation process. Based on an analysis of this input, we aimed to devise a training programme likely to be acceptable to young people and effective in improving their mental health and well-being.

**METHODS**

An advertisement about the study was placed on the Reachout.com website for 4 weeks in November 2009. Twenty-one young people initially responded to the advertisement via email, 13 of whom remained in contact and agreed to be interviewed. An interview, rather than focus group format, was chosen as we intended to recruit participants Australia-wide making travel costs prohibitive. Ten participants were ultimately interviewed by telephone and three face-to-face. Interviews were 30–90 min in duration.

The draft structure for a 6-week training programme was developed as discussed above and a simple demonstration website prepared. The draft structure (noted briefly in the Table 1) was sent to potential interviewees by email and again described at the beginning of interviews. Interviewees also viewed the demonstration website for the MATE programme during the interview.

Interviews included five open questions phrased as ‘In what way can the program’s [subject of interest] be improved?’ Key subjects were: structure, delivery mode, homework, advertising plan and enhancement of the rate of young people accessing the site and participant...
engagement and retention in the programme. A semi-structured format was chosen to allow participants ample room to suggest any spontaneous or original ideas not triggered by above standardized questions. This also allowed, as increasing numbers of participants were interviewed, additional unscripted questions aimed at deeper exploration of new ideas suggested by

Table 1: Mental health promotion in the Internet age: a consultation with Australian young people to inform the design of an online mindfulness training programme

<table>
<thead>
<tr>
<th>Domain</th>
<th>Draft design presented to participants</th>
<th>Changes and additions based on participant suggestions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekly online education</td>
<td>Duration: 6 weeks</td>
<td>5–10 min ‘talking head’ streaming video to introduce key topics for the week</td>
</tr>
<tr>
<td></td>
<td>Core information presented weekly in video format</td>
<td>5–10 min streaming audio guided meditation exercise</td>
</tr>
<tr>
<td></td>
<td>Videos comprise an edited recording of a live training group</td>
<td>5–10 min video of group discussion of successes and difficulties in gaining mindfulness skills</td>
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<td></td>
<td></td>
<td>5–10 min closing talking head video (including a recap of week’s learning, practice tasks for the coming week and a brief guided meditation)</td>
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<tr>
<td></td>
<td></td>
<td>Downloadable PDF file summarizing the week’s key teaching content, which may be used as an alternative or adjunct to videos for learning or reviewing information</td>
</tr>
<tr>
<td>‘Timeout’ practice</td>
<td>Meditation at home in between weekly sessions supported by downloadable audio instructions</td>
<td>Downloadable MP3 of meditation instructions for twice per day practice with length increasing gradually from 5 min in week 1–20 min in week 6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Everyday mindfulness ‘tasks’: a variety of ways of remembering to bring present-moment-focused awareness to routine activities such as walking to school, doing homework or socializing; a new task presented each week. To be suggested in final video, at the end of the PDF file and briefly mentioned at the end of that week’s home meditation instructions</td>
</tr>
<tr>
<td>Online discussion forum</td>
<td>Set up to allow sharing experience of the programme and to ask questions from other participants or facilitator.</td>
<td>A bulletin board hosted on Reachout.com itself (rather than the study website) with access restricted to study participants (both aspects seen as improving sense of trust and privacy). One of the programme authors experienced in teaching mindfulness (K.M.) to review responses and questions and contribute to the discussion on a daily basis during weekdays.</td>
</tr>
<tr>
<td>Evaluation</td>
<td>A randomized, wait-list controlled trial</td>
<td>Quantitative: online Likert scale outcome measures taking a maximum of 15 min to complete</td>
</tr>
<tr>
<td></td>
<td>Key outcome domains: depressive or anxious symptoms, subjective well-being and sense of functioning and mental skills (emotion regulation ability and mindfulness)</td>
<td>Qualitative: (i) feedback about experience of undertaking the programme and how it may be improved in future versions (ii) feedback about engagement with and experience of the construct of mindfulness and associated practices independent of this particular course structure</td>
</tr>
<tr>
<td>Advertising</td>
<td>Via a link on Reachout.com</td>
<td>Additionally to include: links to the programme on websites of youth-specific organizations; presence on Facebook and Twitter; personal attendance at educational institutions and public events (e.g. music festivals) where young people are likely to be present</td>
</tr>
</tbody>
</table>

How the mindful awareness training and education (MATE) programme developed from draft to the final version by incorporating interviewee comments.

aParticipants were provided with two pages of text elaborating the draft design and a discussion of this, to ensure understanding, formed the first 5–15 min of the interview. Only a brief outline has been provided in this column in the interests of brevity.

bSee ‘results’ for further details of additions, changes and suggestions.
initial interviewees. Little new information was obtained in interviews subsequent to the first nine indicating data saturation.

Notes taken during interviews were manually analysed by one of the authors (K.M.). Initially a matrix was devised to summarize and group various interviewees’ responses according to key areas of enquiry (i.e. structure, homework etc. as above). Based on a review of this matrix, a large number of initial categories were delineated. These were condensed into a small number of core themes following further analysis. Raw interview notes were then re-analysed to ensure that categorized themes comprised a complete reflection of issues raised by participants and to clarify how frequently interviewees had emphasized each theme. The three lengthiest interview notes were independently coded by one of the co-authors (D.V.). Comparison of data categories identified by two authors revealed 86% agreement. It was deemed unnecessary to have multiple coders on all interview notes.

Approval for this project was obtained from the University of Melbourne Human Research Ethics Committee.

RESULTS

Interviewee characteristics
Participants were aged 16–26 (average 22). Sixty percent were female. Fifty percent were studying full time and the rest were in full or part-time employment. Fifty percent had had some previous experience of MT. None reported an extensive background in meditation practice (i.e. meditation on most days for a number of months). Fifty percent had previously been diagnosed with a mental illness [major depressive disorder (6), anxiety disorder (4), bipolar disorder (2), PTSD (1)—all reported currently stable]. All participants denied a current substance use disorder.

Desirability of an online programme and ideal appearance, structure and content
All interviewees commented that an online mindfulness programme would be of interest to their peers. They suggested that many young people would prefer it to a live programme as (i) the latter would take too much time; (ii) it would involve travelling to where training was held which would be a ‘hassle’; (iii) ‘the net’s where we spend all our time anyway’ and (iv) ‘if you’re all anxious you wouldn’t want to sit with a group of people’. They saw Reachout.com as a ‘brand young people trust’ which would lend authority to a programme presented thereon.

‘Look and feel’ of the website and structure of training modules
Male interviewees were concerned that the demonstration site, coloured a pale green and decorated with flowers, would not be appealing to young men. They suggested using darker, bolder colours (e.g. black, yellow and dark blue). All interviewees suggested not having pictures of meditators on the site as it may communicate a religious overtone. Instead they suggested pictures of young people ‘being happy, being active and having fun’ perhaps enhanced with online animation. Two interviewees encouraged the use of slang and mobile telephone text message language (e.g. abbreviating ‘you’ to ‘u’) especially in headings.

All interviewees were in favour of information delivery in video format rather than through text or audio. Although suggesting ‘as little text as possible’ (2–3 sentences in each page) on webpages they asked that teaching material be available as a downloadable PDF file as well as videos. This could allow participants to quickly review the teaching content for the week if they wished.

All interviewees preferred a series of short videos each week rather than one long presentation. Reasons given were: young people have a ‘short attention span’ and are unlikely to remain attentive to a video for more than a few minutes; young people tend to do several things at once when online (e.g. chat rooms, Facebook, instant messaging etc.) and as such are unlikely to continue viewing a video if it interferes with this process and; it allows them to progress at their own pace (e.g. take breaks between videos if needed) to go back and watch each section separately if they so desired.

To avoid boredom they suggested no more than four videos each week with a maximum duration of 10 min each (three suggested a maximum of 5 min). Two interviewees commented that participants viewing latter weeks of the programme may ‘cope with longer videos’ as (i) they were obviously committed and (ii) their
ability to attend to material may have improved through the mindfulness practices they have been engaged with.

One interviewee suggested that the whole week’s page not be longer than one mouse scroll long. Another suggested videos are placed in a horizontal line (e.g. two at a time) rather than vertically. Four interviewees suggested using ‘progress bars’ at the top of each page, whether a teaching module or outcome measurement, so as to orient participants, create a sense of fulfilment and encourage completion.

‘Timeout’ practice
All interviewees advised against the use of the word ‘homework’ as it may remind participants of their university or school homework and thus be off putting. Suggested alternatives were ‘home practice’, ‘meditation practice’, ‘rest’ or ‘timeout’.

Interviewees suggested a maximum of 5 min of daily meditation practice not more often than twice a day. They were comfortable with meditation instructions being provided in downloadable MP3 format.

To make home practice engagement more likely three interviewees suggested asking participants to practice at the same time every day perhaps ‘pegging it’ to a routine activity (e.g. after brushing their teeth in the morning). Two interviewees suggested asking participants to log their home practice and record any difficulties experienced with it in a diary. Another suggested drawing a parallel with the ritual and regularity of ‘when you’re on a medication’ when describing the approach to practice.

Retaining participants
A consistent message from all interviewees was that any form of feedback or communication from the programme was likely to improve retention. In addition to forms of feedback already mentioned, email (even if automated and using a ‘no-reply’ address), and text message reminders, were thought to be likely to be helpful without being intrusive.

All interviewees agreed that an online forum, which enabled discussion about their programme experiences, was highly desirable and was likely to boost retention significantly through: clarifying aspects of the teaching; sharing and overcoming difficulties with practice; and encouraging participants to remain engaged and complete home practice sessions.

Sunday morning was suggested by two interviewees as a suitable time for each weekly module of the programme to become available as ‘young people check their email and Facebook on a Sunday afternoon.’

Another interviewee suggested phrasing the initial registration step as an ‘application process’. She suggested that this would communicate the serious nature of their undertaking and encourage young people to persevere.

Two forms of reward were suggested by interviewees to ensure programme and outcome measure completion. First by highlighting the opportunity to benefit other young people a sense of ‘doing good’ and ‘being part of a bigger thing’ may be created. Interviewees suggested that it be emphasized early on that this was a world first programme of its kind and that a future roll out of the programme would be based on the experience of participants in this pilot version.

Second physical rewards were suggested in three forms: (i) a certificate for those who complete the programme and outcome measures which may be a desirable inclusion in résumés of participants who may be engaged in mental health or community studies or careers (ii) a token reward that all programme completers and all who finish all three rounds of outcome measures would receive (e.g. a Reachout.com arm band or sticker) and (iii) a prize draw for items of monetary value.

Interviewees commented that a higher chance to win small prizes was likely to be more motivating than a small chance to win large prizes. Suggested prizes were: movie vouchers; vouchers for electronics and music stores (esp. ones which had an online purchase option); music and application download credits; mobile telephone call credits; event ticket credits and driving lessons.

Evaluation method
All interviewees concurred that proposed demographic data and assessment domains (positive mental health, symptoms of ill health and mental skills) were appropriate and likely to seem relevant to participants. One interviewee suggested additional functional items to capture such aspects as ‘eating pattern, having a routine
they are happy with, and being able to catch public transport’.

All preferred online to mailed questionnaires. Completing outcome measures should take no >15 min according to half of the interviewees, while the other half suggested that any >10 min would be problematic: ‘When I was doing Moodgym [an Australian online depression treatment resource] it was 50 000 questions and by the end I said stuff this’; ‘people will get bored after 5 min and... they’ll just tick at random’.

One interviewee suggested dividing questions into sections (e.g. titled ‘positive stuff’ etc.) to make the task less daunting. Three interviewees suggested providing brief personalized feedback about scale scores and graphs showing changes at follow-up assessments.

One interviewee suggested that participants be asked to log how much practice they had done and how their mood had been each week before viewing videos. He commented that this may provide useful data and encourage participants’ progress in the programme especially if it was followed by an automated message of encouragement.

All agreed that young people were likely to be eager to provide qualitative feedback about their experience of the programme. They emphasized that the plan to devise a future, improved version of the programme based on their feedback be highlighted at the outset. One interviewee suggested asking ‘what are the things that have changed in your life since you began the program?’ upon completion to capture any adverse or stressful life events. Two were concerned that random allocation was likely to deter many potential participants but suggested that a waitlist rather than non-intervention control model would mitigate this effect somewhat.

Advertising and recruitment

Four interviewees suggested avoiding any reference to ‘spirituality’ or even ‘meditation’ as ‘they might think it’s some spiritual bull…!’ They suggested instead focusing on the likely benefits of the programme. Suggested terms were: ‘stress reduction’; ‘managing procrastination’; ‘getting your anxiety down’; ‘stop stressing out’; ‘relieve the stress of everyday life’; ‘relieve the pressure of everyday life’; ‘increase your happiness’; ‘learn to listen to yourself’ and ‘become aware of your reactions’. One interviewee advised caution in using references to stress or ‘stress management’ as in his view potential participants were already (especially in educational settings) ‘bombarded’ with tips on reducing stress. Aside from formal avenues of advertising one interviewee suggested the study have a Facebook and a Twitter presence. One interviewee suggested a video of a young person who has had MT previously speaking about the benefits of the programme on the website homepage.

Potential problems envisaged by interviewees

Ten interviewees commented that although the idea of learning mindfulness skills is likely to appeal to many young people, persevering in the programme to the end and completing home practices were likely to prove difficult. One interviewee pointed out that young people may be reluctant to undertake the programme because of concerns about privacy (e.g. when using a family or other public computer).

An outline of the MATE programme informed by input from young people

The brief draft MATE programme originally presented to interviewees was refined and elaborated based on the aforementioned input as noted in the Table 1.

All suggestions outlined above were incorporated into the design of the website, evaluation plan and advertising activities (though not all are detailed in Table 1 for conciseness). The following were exceptions: omission of references to ‘meditation’ and ‘stress’; phrasing initial registration as an ‘application’; limiting outcome measures to take no longer than 10 min to complete (suggested by half); including functional outcome measures beyond what is captured in the assessment of subjective well-being and personalized feedback regarding scale scores and programme progress. The rationale for exclusion is discussed below.

DISCUSSION

In this study, a group of young people were interviewed to help inform the design, recruitment and retention strategy as well as the evaluation plan for an online mindful awareness
training and education (MATE) programme. Interviewees commented that such a programme was likely to be well received by young people and offered an extensive range of suggestions for improvement centred around the following themes: ‘look and feel’ of the webpage; information delivery medium and pattern; provision of feedback to participants; making homework practical and appealing; volume and composition of outcome measures and qualitative enquiry; tailoring advertising material and avenues to young people and strategies for retaining participants in the programme.

Formative feedback has been an integral part of programme design in the education setting since the 1960s (Van den Akker et al., 1999). Its use in health promotion has been a later development (Dehar et al., 1993). This is especially so where young people are concerned (McGraw et al., 2000). Empirical evidence has only recently begun to emerge that obtaining and implementing such feedback leads to improvements in programme outcomes (Brown and Kiernan, 2001).

Nonetheless, in youth-specific research, there is a strong drive to involve young people from the very earliest stages of intervention development (Stafford et al., 2003). This involvement is often within the bounds of an adult agenda, distinguishing it from true youth participation involves young people deciding on the agenda itself (National Children’s Advisory Council, 2009). Consultation, of which this study is an example, entails, by its nature, a balance of power biased towards adults: they determine the questions to be asked and decide what to do with the information (National Children’s Advisory Council, 2009).

Notably, in a study exploring the views of children and young people about the consultation process, Stafford et al. found that young people saw this form of participation as very valuable (Stafford et al., 2003). They suggested that the process should be: inclusive of a wide variety of young people; motivated by a genuine interest in making use of their views; have a clear purpose that is well communicated to young people and is respectful of young people’s role as making an important contribution (Stafford et al., 2003).

We used a variety of methods to reduce the imbalance engendered in a consultation approach: provision of a minimal amount of draft content so as to ‘lead’ interviewees as little as possible; a minimum number of standardized questions with an open format and allowing flexibility in responding to material provided by interviews using additional, unscripted clarification questions. We found that face-to-face interviews provided richer and more detailed data than telephone interviews (held with participants geographically distant from researchers). Participants appeared eager to engage in the process and required little encouragement to elaborate. Additionally none reported feeling tired, requiring a break or termination of interview.

A limitation of this study may be its relatively small sample size. This is mitigated by the fact that suggestions became repetitive after the ninth interview, where we concluded that data saturation may have been reached. A contributor to relatively early saturation may be the possibility that the draft programme characteristics (Table 1) restricted the range of suggestions that occurred to them or that they saw as relevant. Another limitation, related to the recruitment via Reachout.com, is that participants may not be representative of the general youth population: they are clearly interested in accessing mental health information online and also in programme development.

A common challenge in making use of consultee feedback is the fundamental tension between what a health promotion professional or researcher may feel is important to include in a programme (e.g. randomization) and what potential recipients may desire. Negotiating differences may be particularly difficult when initial consultation is held, as in this study, without participants having actually experienced the programme in full and understood its characteristics and rationale experientially (e.g. regarding sustained meditation practice if attentional skills are to be improved). A balance should ideally be struck between respect for the need for autonomy and the self-knowledge that a chosen target population brings and ‘expert’ knowledge based on previously available evidence of what works and what does not (Castro et al., 2004). Using a blueprint for interviews, in the form of an intentionally brief draft (Table 1), allowed us to ‘insist’ on some key aspects, which we thought were necessary (e.g. practice between teaching sessions). Also we chose not to follow some suggestions to ensure accurate and ethically sound communication to
potential participants and effective programme evaluation: that words such as ‘meditation’ or ‘stress’ be omitted from advertising; that registration is phrased as an application process; and that questionnaires not take >10 min to complete (versus the other half of participants who suggested a maximum of 15 min).

Some suggestions could not be incorporated into the final programme design as the software costs would have been prohibitive: personalized automated feedback based on outcome measure scores; automated reminders to do ‘timeout’ practice; and online animations. Additionally, some suggestions from participants were in conflict with others, which meant compromises had to be made in incorporating them. For example, minimizing the number of questions asked during outcome measurement was unanimously agreed on. Nevertheless some participants suggested additional items to be added to the already broad range of domains they had felt was relevant.

An ideal alternative consultation study design would perhaps involve interviews with a group of young people with extensive personal training in mindfulness or as mindfulness educators. Such a group could then be presented with no draft plan at all but simply with the question: ‘How would you design an online MT program for young people?’ This exercise was not undertaken in this study as recruiting a sufficient number of young people with extensive personal experience in this area was not deemed possible. Additionally, interview feedback may be enriched had we circulated a summary of the results back to participants and conducted a second round of interviews. We aim to redress these issues in a detailed qualitative study planned as part of the evaluation of the online MATE programme once it has been finalized and delivered based on the results of this initial consultation.

CONCLUSIONS

This study demonstrated that young people were enthusiastic about contributing to the design of an Internet-based health promotion intervention intended for the use of their peers. Their contributions were rich in breadth and detail and had a major impact on the design and the strategy for recruitment and evaluation of the eventual programme: Mindful Awareness Training and Education (MATE).

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