Minndistrict for adults with depression

7 October 2019

Summary

- The technology described in this briefing is Minndistrict. It is designed to treat depression.
- The scope for this briefing is to consider the use of Minndistrict to treat depression in a therapist-guided model of care, in adult Improving Access to Psychological Therapies (IAPT) services, for the NHS England evaluation of digitally enabled psychological therapies for IAPT.
- The intended place in therapy would be as a step 2 or 3 therapy, as an alternative to face-to-face cognitive behavioural therapy (CBT) in people with mild-to-moderate depression. It would be delivered with support and guidance from a therapist.
- The main points from the evidence summarised in this briefing are from 2 randomised controlled trials set in Germany and Netherlands. These trials include a total of 345 young people and adults at school or university. They show that Minndistrict is as effective as face-to-face CBT, and more effective than waiting-list control (that is, no treatment), in young people and adults with psychopathology or elevated levels of repetitive negative thinking.
- Key uncertainties around the evidence are that the young people and adults in the trials do not have a primary diagnosis of depression. In addition, the German trial includes students with a mean age of 25 years, and the Dutch trial students with a mean age of 17 years. The study populations may therefore not be typical of that in IAPT services.
- Because of the key uncertainties highlighted, additional observational data was provided. The main points from this data are that 2 IAPT services in England used Minndistrict for a total of 92 adults undergoing treatment for depression. They show that Minndistrict is as effective as face-to-face CBT in reducing Patient Health Questionnaire-9 (PHQ-9) scores.
• **Key uncertainties** around the data are that only a small number of people used Minddistrict in 1 service compared to the number of people not using Minddistrict. In addition, people using Minddistrict in these services may have had less severe depression.

• The **cost** of Minddistrict is £73 per person. This includes a licence fee of £42 (including VAT) and 1 hour and 30 minutes of a psychological wellness practitioner's time. The **resource impact** would be similar to that of standard care but may free staff time to deal with more dependent people.

• The IAPT expert panel **recommended** Minddistrict for the evaluation in practice phase of the NICE and NHS England IAPT assessment programme.

**The technology**

Minddistrict (Minddistrict Ltd.) is an online and app-based therapy programme with various modules intended for treating all psychological health conditions and some physical health conditions. Minddistrict can be used as a standalone self-help tool or in a therapist-guided model of care. The focus of this briefing is on its use in therapist-guided model of care for depression.

The content of Minddistrict is split into modules. Each module refers to a specific condition. There is an IAPT depression module that is suitable for mild-to-moderate depression in adults. This consists of 7 sessions that are usually completed in 6 weeks. In each session, a different subject about depression is discussed. The sessions are:

• **Session 1: Welcome** – This explains the purpose of Minddistrict and how it works. It also asks people to consider their expectations and how they will make time for the course.

• **Session 2: What's been going on?** – This covers learning about the symptoms of depression and how they are maintained, and about the possible causes of depression. People are helped to begin to identify the causes of their own depression.
• Session 3: How active are you? – This looks at why activities are important for overcoming depression, and at the different types of activities. People are encouraged to start tracking their energy and activity levels.

• Session 4: How helpful are your thoughts? – This is about how thoughts can trigger and maintain depression. People will see how their thoughts influence the interpretation of events. They will also learn about thinking styles and begin to identify their own thinking style.

• Session 5: Challenge your negative thoughts – People will learn different techniques to begin challenging negative and unhelpful thoughts. They will then begin to develop more helpful thoughts.

• Session 6: Let's build on the positive! – This is about focusing on the positive moments in life. People will begin to keep a positive diary to record these moments and be given tips to help with this. They will also learn about visualising these positive moments.

• Session 7: Focus on the future! – This looks at relapse prevention plans. People will identify situations, thoughts and feelings that trigger their depression. They will write down which techniques from their therapy they will use if they notice these difficult situations arising.

When used in a therapist-guided model of care, a person first completes self-test questionnaires (PHQ-9 and GAD-7). These scores are reviewed by the therapist, who decides if access to the depression module is appropriate. If so, a user logs in and works through the module, completing PHQ-9 and GAD-7 at the end of every session.

The therapist can see and comment on a person’s progress through each session, before unlocking the next session. The therapist reviewing progress can be changed if there is clinical need, for example, if someone progresses from step 2 to step 3 therapy.

Users can choose to hear the content of the programme read aloud (in English) at a slow, medium or fast pace, instead of reading text. Minddistrict adheres to web content accessibility guidelines.
Minddistrict can be used by anyone who uses one of the main web browsers, or IOS or android operating systems on smartphones. Access is provided for 1 year after registration.

**Regulatory status**

The technology owner has stated that Minddistrict is CE marked as a class 1 medical device.

**Current usage and reach**

Minddistrict has been available for use in the UK since 2012 and, in 2019, was being used in 10 IAPT services in the NHS.

**Current care pathway**

The NHS England Adult Improving Access to Psychological Therapies (IAPT) programme aims to provide evidence-based treatments for people with common psychological conditions such as anxiety and depression. IAPT services offer evidence-based psychological therapies given by accredited practitioners, with routine monitoring and regular outcomes-focused supervision.

The care pathway for depression is described in the NICE guidelines on depression in adults, depression in adults with a chronic physical health problem and common mental health problems. NICE recommends a stepped-care model for treating depression, in which the least intrusive, most effective intervention is provided first. If someone does not benefit from the intervention first offered, or declines an intervention, they should be offered an appropriate intervention from the next step.

Minddistrict could be used in a therapist-guided care model in secondary care, or in IAPT services as a step 2 or 3 therapy. It is not anticipated that any changes would be needed to the current care pathway.

**Population, setting and intended user**

Minddistrict could be used in any setting in which the user has access to the internet, including in the home or in outpatient clinics. It would be used by
adults with depression, in a therapist-guided care model with an appropriately trained therapist. In IAPT services this would likely be an appropriately trained psychological wellness practitioner (PWP).

The technology owner states that people do not need any special training to use Minddistrict. However, therapists would need training in its use; this would be provided by the technology owner, as part of its implementation package and ongoing support. Part of the implementation package includes establishing a super-user team of existing therapists. This team will then train additional therapists.

**Equality considerations**

NICE is committed to promoting equality, eliminating unlawful discrimination and fostering good relations between people with particular protected characteristics and others. In producing guidance and advice, NICE aims to comply fully with all legal obligations to: promote race and disability equality and equality of opportunity between men and women, eliminate unlawful discrimination on grounds of race, disability, age, sex, gender reassignment, marriage and civil partnership, pregnancy and maternity (including women post-delivery), sexual orientation, and religion or belief (these are protected characteristics under the Equality Act 2010).

The technology owner states that Minddistrict has been designed to be suitable for people with low literacy levels by providing an option to listen to an English-speaking audio in the sessions. The text in the sessions can also be made bigger on all devices and this may improve accessibility.

Digital technologies such as Minddistrict may be unsuitable for people with visual impairment or learning disabilities. Disability is a protected characteristic under the Equality Act.
The content

Care model

Minddistrict has been assessed as part of a therapist-guided model of care. In this model, a therapist assigns a treatment module to the user. The user then works independently towards recovery with the guidance of the therapist and the help of a treatment module. After each session, the user gets feedback from the therapist. As well as the treatment module, a user can choose to fill out a diary or do optional self-help training. The user can have support and guidance from their therapist via any of the following:

- face-to-face sessions
- group sessions
- individual or group video sessions
- live individual or group chat sessions.

The therapist is crucial in assigning a treatment module to the user and gives feedback during their progress in the module. The modules can be personalised based on the care needs of the user. This can be done by changing the guidance level, editing the order of the sessions or adding, repeating or deleting a session.

Outcome measures

Minddistrict uses the PHQ-9 and GAD-7 outcome measures that are needed for use in IAPT services. The technology owner has stated that therapists will be able to review each user’s individual outcome measures.

Content assessment

The therapeutic content of Minddistrict was assessed using a framework designed to measure how closely its content maps to the standard principles of CBT for depression (Beck model).

The content assessors reported that Minddistrict uses a fully blended model of care to enable the integration of user and therapist input. This ensures there is substantial interaction between the therapist and the user.
The assessors noted the following points about using Minddistrict for depression:

- The programme has a user-friendly interface and each section is concise. This makes it accessible to people who may have concentration difficulties. However, this can lead to some sections of the programme feeling ‘light-touch’, which may make it more suited to people with mild rather than moderate depression.

- The assessors concluded that the content could be improved to align to face-to-face CBT for depression by having more emphasis on changing meaning of behaviour, including thought challenging, addressing underlying beliefs, reviewing alternatives and activity scheduling (behavioural activation). These are components that take up a significant proportion of a therapist’s time in face-to-face therapy. The formulation component, preferably developed with the user, could also be strengthened.

- The therapist manual focuses on technical matters on how to use the programme. The assessors advised that, to maximise effective integration of therapist and user work, a manual should be developed to help therapists use the programme, respond to users and manage risk.

- The assessors concluded that the series of short videos complement the text and, where included, user stories help to illustrate the issues being discussed.

- The assessors did not find the videos of CBT therapists so useful, commenting that they would benefit from being scripted and more concise to make the messages clearer.

- The assessors thought that the rationale for including a session on monitoring happiness is unclear. While the Beck model can include a positive data log, it is intended to monitor the impact of alternative thought exercises. In addition, they thought the session is not detailed enough to reflect acceptance and commitment therapy and questioned its inclusion.

- The assessors noted that there was no alert for the therapist to indicate when a user has completed diaries and assignments, which could mean they could be missed.
• Although the user’s expectations are discussed in broad terms, with a positive rationale for the programme, the assessors noted that there is no indication of the likely improvement that can be expected or mention of the possibility that the user will see no improvement. This has implications for people who do not gain any benefit, who may experience this as a failure. It would be helpful to include a statement that ensures that users have a realistic sense of the efficacy of the programme.

The assessors highlighted their concerns with the level of clinical evidence for Minddistrict. They noted that the population in the randomised controlled studies did not have depression, which is not the same as the population the technology is being assessed for in this briefing.

*Scalability*

The technology owner has stated that any additional increase in users from the NHS following evaluation through this programme could be managed within current capacity.

**Technical standards**

*Technical assessment*

Minddistrict has had a technical evaluation using relevant sections from version 2.1 of the Digital Assessment Questions (DAQ), a tool developed by NHS Digital and currently available to developers in beta form. The evaluation included 6 domains of the DAQ: clinical safety, data protection, security, usability and accessibility, interoperability and technical stability. Questions from the DAQ on technologies for children, and questions about the evidence base were omitted from this evaluation.

Minddistrict met the digital standards set out in the DAQ after remediation plans were provided by the technology owner to address issues identified in the domains of clinical safety, data protection, security, usability and accessibility and technical stability. The technical assessors noted specific standards that must be met for clinical safety and security. In clinical safety, Minddistrict must review DBC0129, the relevant clinical safety guideline, and
ensure their personnel and processes meet requirements. In security, certain technology upgrades must be executed to comply with requirements such as the encryption of patient data at rest. Minddistrict have provided remediation plans to meet required resilience standards which could be completed within 6 months.

**Clinical evidence**

A literature search was carried out for this briefing in accordance with the process and methods statement. This briefing includes the most relevant or best available published evidence relating to the clinical effectiveness of the technology.

This briefing summarises 2 randomised controlled studies, involving a total of 345 patients, and observational data from 2 IAPT services reporting on the outcomes of Minddistrict in 92 NHS service users.

**Overall assessment of the randomised controlled trials**

Two randomised controlled trials report the effectiveness of Minddistrict compared with face-to-face, group and waiting-list control. Minddistrict was used with therapist guidance in both studies, which reflects how it would be used in IAPT services.

Both studies recruited people without a primary diagnosis of depression, with the Topper et al. (2017) study specifically excluding people with major depression. The Victor et al. (2018) study recruited people with psychopathology and only measured outcomes on depressive symptoms rather than on depression as defined by PHQ-9 scores. Similarly, Topper et al. reported symptomatic depression, although they did follow up and included depression as an outcome.

Both studies recruited university students, with Topper et al. also recruiting secondary school students. The mean age of students in Victor et al. was 25.12 years and in Topper et al. it was 17.00 years (range 15 to 22). The studies were therefore weighted to younger people, which may mean the study results are less applicable to a typical IAPT service.
The summaries of evidence are shown in tables 1 and 2.

Table 1 Summary of evidence Victor et al. 2018

<table>
<thead>
<tr>
<th>Data type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study size, design and location</td>
<td>RCT, n=94 people with psychopathology (Brief Symptom Inventory-18 (BSI-18 GSI) score above 4). People recruited to the study were students from Witten/Herdecke University, Germany.</td>
</tr>
<tr>
<td>Intervention and comparators</td>
<td>People were randomised to have Personal Model of Resilience (PMR), either in face to face cognitive behavioural therapy or internet-based cognitive behaviour therapy (via the 3 modules on the Minddistrict platform), or waiting-list control. Both PMR groups had comparable treatment with homework encouraged and evaluated. During internet-based cognitive behaviour therapy counsellors gave feedback, provided guidance or suggestions, and contacted people at least after completion of a module.</td>
</tr>
<tr>
<td>Population</td>
<td>People were recruited to the study through an advertisement on social media and leaflets at their university.</td>
</tr>
<tr>
<td>Key outcomes</td>
<td><strong>Outcome measures</strong> were non-condition-specific measures for psychopathology (BSI-18 GSI), depression (Beck Depression Inventory II (BDI-II)), social anxiety (Social Interaction Anxiety Scale) and resilience (resilience scale-11). These were reported for the whole face-to-face cognitive behavioural therapy group (n=31), internet-based cognitive behaviour therapy group (n=27) and waiting-list control group (n=36) irrespective of symptoms or diagnosis. These were completed pre, post and follow up of the intervention.</td>
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</table>

All groups showed some improvement in depression scores (BDI-II) with effect sizes of 1.00 for face-to-face treatment, 0.51 for online treatment and 0.49 for waiting-list control pre-follow-up. Face-to-face treatment tended to lead to better improvements than online treatment, but there was no statistically significant difference between these groups.

Selected outcomes for all groups were:

**Mean BDI-II scores (standard deviation):**

- Face-to-face cognitive behavioural therapy pre-treatment 15.26 (8.91); post-treatment 9.42 (7.6); 3-week follow up 7.23 (7.72).
- Internet-based cognitive behaviour therapy pre-treatment 11.15 (7.39); post-treatment 7.00 (6.35); 3-week follow up 7.07 (7.94).
<table>
<thead>
<tr>
<th>Data type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waiting-list control</td>
<td>pre-treatment 11.72 (7.46); post-treatment 10.08 (5.68); 3-week follow up 7.75 (5.71).</td>
</tr>
</tbody>
</table>

**Strengths and limitations**

Randomised controlled trial data analysis showed general results for all people who had signs of psychopathological distress rather than a specific diagnosis of depression. The depression outcome measure was not that specifically used in IAPT services, Patient Health Questionnaire-9. The use of 3 modules was also not how the technology was designed to be used in IAPT services.

There were differences in the dropout rate between the groups before the study; 5 for face-to-face cognitive behavioural therapy, 12 for internet-based cognitive behaviour therapy and 2 for waiting-list control. Counsellors reported that some of the people having internet-based cognitive behaviour therapy asked for face-to-face cognitive behavioural therapy after randomisation.

Recruitment was partially via social media and so people in the study may have had stronger IT skills than the general population. People included were students with a mean age of 25.12 years.

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**Table 2 Summary of evidence** Topper et al. 2017.

<table>
<thead>
<tr>
<th>Data type</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>Study size, design and location</td>
<td>Randomised controlled trial, n=251 people showing elevated levels of repetitive negative thinking (worry and rumination) and excluding people with a current diagnoses of major depression or generalised anxiety disorder as assessed by Patient Health Questionnaire-9 (PHQ-9) and Generalized Anxiety Disorder Questionnaire-IV (GADQ-IV). People recruited were secondary school students (aged 15 to 18 years) and first-year university students (aged 18 to 22 years) within greater Amsterdam, Netherlands.</td>
</tr>
<tr>
<td>Intervention and comparator(s)</td>
<td>People were randomised to have a 6-week rumination-focused CBT delivered in a group, via the internet (identified by the technology owner as Minddistrict) or waitlist control. The internet and group version of the intervention only differed in the format delivered, and were identical in content.</td>
</tr>
</tbody>
</table>
### Data type

| Population | All secondary schools (n=23) providing education to pupils preparing for university within the greater Amsterdam area were informed about the prevention trial and invited to participate. In addition, 2 faculties of social sciences of 2 local universities agreed to participate in this prevention trial. |

### Key outcomes

**Measures** included self-reported measures of repetitive negative thinking including Penn State Worry Questionnaire, Ruminative Response Scale and Perseverative Thinking Questionnaire. Self-reported measures of symptomatology included Beck Depression Inventory II (BDI-II), Mood and Anxiety Symptom Questionnaire-D30, Eating Disorder Inventory-2, Bulimia subscale and Quick Drinking Screen. Self-reported measures of clinical diagnosis included Patient Health Questionnaire-9 and Generalized Anxiety Disorder Questionnaire-IV.

For the symptom measures of depression (BDI-II), the group intervention and internet intervention led to reductions in symptoms of depression that were maintained overtime while no statistically significant reductions were found in the control group. Symptom reduction did not differ between the group and internet interventions with medium to large effect size in both.

Selected outcome results included:

**Mean BDI-II scores (standard deviation):**

| Group pre-treatment | 10.57 (5.60); post-treatment 6.38 (5.07) 3-month follow up 6.85 (6.11), 12-month follow up 7.84 (6.18). | Internet pre-treatment 12.21 (6.73); post-treatment 8.26 (6.03) 3-month follow up 7.72 (6.08), 12-month follow up 7.93 (6.52) |
| Waiting-list pre-treatment 12.55 (6.11); post-treatment 13.00 (8.73) 3-month follow up 11.36 (9.24), 12-month follow up 11.55 (9.35) |

Survival analysis indicated a statistically significantly lower prevalence of depression at 12-month follow up in the inventions conditions (group 15.3%, internet 14.7%) compared with waiting-list control (32.4%) with a hazard ratio of 2.12 (95% confidence interval, 1.09 to 4.13). There were no difference in the prevalence of disorders between the interventions.
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<th>Description</th>
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<tr>
<td>Strengths and limitations</td>
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</table>

Randomised controlled trial data analysis showing the effects of preventative CBT for people with elevated levels of repetitive negative thinking.

This randomised controlled trial included people with a mean age of 17 years, and excluded people with a diagnosis of major depression or generalised anxiety disorder, so may not be representative of adult IAPT services.

### Overall assessment of the observational data

The developer has provided additional observational data from 2 IAPT services currently using Minddistrict, with a total of 92 people using Minddistrict as treatment for depression across both services.

The data show that Minddistrict was effective in reducing the PHQ-9 scores of people completing treatment for depression. These reductions were similar for people who received treatment as usual (TAU), typically face-to-face or group therapy, without Minddistrict.

The number of people completing treatment for depression was similar for both Minddistrict and TAU in IAPT service 1. However, in IAPT service 2 only 72 people completed Minddistrict while 2197 completed TAU. In addition, mean PHQ-9 scores were higher in the TAU populations at the start of treatment. This indicates that Minddistrict may have been used for people with less severe depression.

### Table 3 Observational data from IAPT services in England comparing the use of Minddistrict with TAU in people with depression

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Service 1 Jan to Dec 2017 (12 months) Minddistrict</th>
<th>Service 1 Jan to Dec 2017 (12 months) TAU</th>
<th>Service 2 Feb 2017 to Jul 2019 (30 months) Minddistrict</th>
<th>Service 2 Feb 2017 to Jul 2019 (30 months) TAU</th>
</tr>
</thead>
<tbody>
<tr>
<td>People completing treatment (n)</td>
<td>20</td>
<td>17</td>
<td>72</td>
<td>2197</td>
</tr>
<tr>
<td>Mean PHQ9 score at start of treatment</td>
<td>12.78</td>
<td>14.7</td>
<td>14.44</td>
<td>15.97</td>
</tr>
</tbody>
</table>
## Recently completed and ongoing studies

One ongoing trial on the use of Minddistrict for people with depression was identified in the preparation of this briefing. This was not listed on ClinicalTrials.gov.

- Implementing multifactorial psychotherapy research in online virtual environments (IMPROVE-2): study protocol for a phase III trial of the MOST randomised component selection method for internet CBT for depression.

## Cost and resource impact

There are currently no published economic studies on Minddistrict.

### Technology costs

An IAPT service would pay around £42 per licence (including VAT), which gives 1 user access to the programme for 1 year.

In addition to the cost of the technology, the technology owner estimates that around 1 hour and 30 minutes of PWP time would be needed for each course of treatment. This is estimated to cost an additional £31, bringing the total cost per patient to £73 for an average IAPT service. In addition, the technology owner charges extra for training: this ranges from £1,500 for e-learning (for up to 20 people) to £3,750 for 2 half day workshops (for up to 15 people).

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Service 1 Jan to Dec 2017 (12 months) Minddistrict</th>
<th>Service 1 Jan to Dec 2017 (12 months) TAU</th>
<th>Service 2 Feb 2017 to Jul 2019 (30 months) Minddistrict</th>
<th>Service 2 Feb 2017 to Jul 2019 (30 months) TAU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean PHQ9 score at end of treatment</td>
<td>8.08</td>
<td>8.29</td>
<td>8.14</td>
<td>9.58</td>
</tr>
<tr>
<td>Mean age (age range)</td>
<td>31.91 (2 to 52)</td>
<td>33.4 (20 to 66)</td>
<td>33.65 (19 to 68)</td>
<td>40.44 (16 to 89)</td>
</tr>
</tbody>
</table>
Resource impact compared with standard care

Table 4 Costs of Minddistrict per treatment course per person compared with current treatments for depression

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Existing cost</th>
<th>Cost using Minddistrict</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBT-based guided self-help</td>
<td>£21</td>
<td>£73</td>
<td>£52 cost</td>
</tr>
<tr>
<td>Guided self-help</td>
<td>£63</td>
<td>£73</td>
<td>£10 cost</td>
</tr>
<tr>
<td>Group based CBT</td>
<td>£102</td>
<td>£73</td>
<td>£29 saving</td>
</tr>
<tr>
<td>Workshop-based CBT</td>
<td>£8</td>
<td>£73</td>
<td>£65 cost</td>
</tr>
<tr>
<td>Face-to-face CBT</td>
<td>£608</td>
<td>£73</td>
<td>£535 saving</td>
</tr>
<tr>
<td>Course of selective serotonin reuptake inhibitors (SSRI)</td>
<td>£75</td>
<td>£73</td>
<td>£2 saving</td>
</tr>
</tbody>
</table>

Table 4 shows direct staff costs and licence fees only; indirect and overhead costs have not been included.

The following costing assumptions have been made for Minddistrict:

- The licence is expected to cost around £73 per person (including VAT).
- It may be delivered by a PWP; costs include 1.5 hours of their time per person having treatment.
- There is an additional one-off training cost for therapists of £1,500 for e-learning or £3,750 for face-to-face training (not included in the cost of the technology).

Overall impact

The use of the technology is unlikely to deliver cash releasing savings, but it may free staff time to deal with more dependent people. For example, a reduction in individual guided self-help is expected to release therapist time.

Early interventions and home treatment for mental health problems can reduce hospital admissions, shorten hospital stays and result in fewer high-cost intensive interventions. This may create more capacity and access for people needing urgent mental health services.
Early treatment of people with mental health problems may help individuals to continue to work or return to work more quickly after a mental health problem.

**Cost and resource impact statement from the technology owner**

There will be an element of training needed for PWPs to support people using Minddistrict, and the technology owner has stated that this will cost £1,500 for e-learning for up to 20 people, or £3,750 for face-to-face training, for up to 15 people.

The technology owner states that, because Minddistrict is an online platform, it may improve access for hard-to-reach populations with depression such as young men and men from minority backgrounds.

**IAPT expert panel considerations**

The expert panel considered the assessments of digital technological factors, therapeutic content, clinical evidence and resource impact in making their decision that Minddistrict should progress to the evaluation in practice phase of NICE and NHS England IAPT assessment programme.

**Technical assessment**

The panel considered the outcome of the technical assessment. They noted that Minddistrict met the digital standards set out in the DAQ after remediation plans were provided by the technology owner to address issues identified in the domains of clinical safety, data protection, security, usability and accessibility and technical stability. They also reviewed the timeline of 6 months for completing remediation plans provided by the technology owner and were satisfied that the plans were enough for the technology to be used in practice.

**Content assessment**

The panel noted the content assessors report that Minddistrict uses a fully blended model of care to enable the integration of user and therapist input.
and agreed that this ensures there is substantial interaction between the therapist and the user.

The panel agreed with the content assessors’ comments to improve the technology with the following:

- In order to maximise effective integration of therapist and user work, a manual should be developed to help therapists use the programme, respond to users and manage risk.
- That setting realistic user expectations could be usefully added to the introductory module.
- That for the technology to fully align with face-to-face CBT, more emphasis would be required on changing meaning of behaviour.

Finally, the panel noted the content assessors concerns with the level of clinical evidence for Minddistrict, which were similar to their own.

**Clinical evidence**

The panel considered the main points and limitations from the evidence of the 2 randomised controlled trials. The panel agreed that the population in the studies were younger than users in IAPT services and did not have a confirmed diagnosis of depression or caseness for depression.

The panel therefore requested additional information from the technology owner in the form of observational data from NHS sites currently using Minddistrict. They agreed that this showed Minddistrict to be similarly effective in reducing the PHQ-9 scores as treatment as usual, typically face-to-face or group therapy, for people completing treatment for depression.

**Cost and resource impact**

The panel noted the costs of the technology and training and agreed its use is unlikely to deliver cash releasing savings, but it may free staff time to deal with more dependent people.
Development of this briefing

This briefing was developed by NICE for NHS England’s assessment of digitally enabled psychological therapies for IAPT. The briefing was presented to NICE’s IAPT expert panel, who considered Minddistrict for this assessment programme. The process and methods statement sets out the process for selecting topics, and how the briefings are developed, quality-assured and approved for publication.

Panel members

- Professor Tim Kendall (chair), National Clinical Director for Mental Health, NHS England and NHS Improvement
- Ms Lauren Aylott, lay member
- Professor Peter Bower, Professor of Health Services Research, Manchester University
- Professor Chris Hollis, Professor of Child and Adolescent Psychiatry, University of Nottingham
- Dr Ifigeneia Mavranezouli, Senior Health Economist, University College London
- Ms Toni Mank, Clinical Director for Planned and Scheduled Care and Head of IAPT, Sheffield Health and Social Care NHS Foundation Trust
- Dr Nicholas McNulty, Primary Care Psychologist, South London & Maudsley NHS Trust
- Professor Steve Pilling, Professor of Clinical Psychology and Clinical Effectiveness, University College London
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