The human touch in a digital age: a blended approach in mental healthcare delivery with children and young people

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Online delivery of psychological interventions has the potential to address many current issues facing service provision in child and adolescent mental health, not least improving access to evidence-based therapies and providing greater patient choice in the face of limits to funding. Recognising this, the National Institute for Health and Care Excellence (NICE) now recommend digitally delivered therapy in the treatment of depression in children and young people (CYP) (NICE, 2019). However, despite the virtual ubiquity of technology in young people's lives, and good evidence that online treatments can be effective, there remain barriers to real-world implementation. We argue that remote therapist support and blended approaches to therapy will be important models in harnessing the potential of digital technology in CYP mental health.

"Therapist supported" online interventions come under many different guises, with key variables being level of therapist training, and frequency and duration of contact. Platforms

may also vary in terms of the mode of the interaction (e.g. messages or video), whether they are synchronous or asynchronous (i.e. instant responding vs responding to offline messages) and the primary role of the therapist (e.g. motivational or actively delivering content). “Blended” approaches may also integrate face-to-face contact with augmentative online, digital interventions or resources. With this spectrum in mind, remotely supported interventions have the potential to meet a wide range of different service needs, but a one-size fits all solution is neither likely nor necessarily desirable.

Empirically, there is now good evidence that digital interventions can be clinically effective. Certainly in the context of clinical trials, effect-sizes for short to medium term outcomes appear more-or-less equivalent to those seen in face-to-face treatment (Hollis et al., 2017). Whilst the evidence base is currently largely restricted to CBT-based interventions for mild to moderate anxiety or depression, there has been growing attention to wider ranging conditions in CYP. This includes CBT-based programmes for PTSD, OCD, eating disorders and Tourette syndrome, parenting programmes for conduct and behavioural problems, and interventions specifically tailored for CYP with neurodevelopmental disorders or physical health problems.

Putting cost-implications aside, there is also general agreement that some remote support with online interventions is better than none; in terms of clinical outcomes, even programmes with ‘minimal’ therapist contact yield higher effect sizes than pure self-help (Grist, 2019). The mechanisms behind this therapist benefit are likely not dissimilar to those seen in face-to-face therapy, with the perception of shared aims and goals promoting accountability for change and facilitating continued adherence. Research with adults has shown that a strong ‘therapeutic alliance’ can be formed online and that higher alliance quality ratings predict better therapy outcomes (Pihlaja et al., 2018). With little research to date with CYP, it will be important to better understand therapeutic practices that support stronger engagement and alliances online, particularly as this may involve quite a different skill set to traditional therapies.

One clue to the importance of human support in online therapies is evidence of very low real-world adherence rates for unsupported platforms. For example, when the 'serious gaming' digital intervention SPARX was made publically available online in New Zealand, only between 2% and 5% of CYP who initially signed up went on to complete the full programme (Malatest International, 2016), contrasting with considerably higher treatment completion rates during the initial trial. Whilst there are many factors that may inflate adherence to treatment in clinical trials (e.g. sampling biases), it seems that the mere presence of a supportive research team may bolster engagement with an intervention. Importantly, this means that even low intensity support (such as motivational encouragement without therapeutic content) may boost real-world effectiveness and feasibility of online interventions, without the need for expensive and highly trained clinicians.

Another frequently cited benefit of online interventions is the potential to widen access to populations who would otherwise struggle to access traditional therapies, for instance due to remote geographical location or work/school commitments. However, online delivery may also challenge some of the social stigmas or psychological barriers associated with accessing traditional face-to-face therapy. Some young people, particularly from certain clinical groups such as those with social communication difficulties, may find online interaction with a therapist more acceptable. Similarly, for therapists, being able to use online communication tools such as Emoji offers new ways of engaging CYP with therapeutic work, and could potentially support development in emotional literacy. However, this also necessitates that therapists themselves are 'fluent' in Emoji and text-speak and understand how cultural factors may impact these fast-evolving online languages.

Despite these potential advantages there is still some way to go in promoting public acceptance of online intervention. A recent scoping review indicated that most young people still view online treatments as less effective than face-to-face treatments, despite empirical evidence to challenge this (Apolinário-Hagen et al., 2017). However, it is also clear that some of the core concerns around digital therapies, such as fears of treatments being

impersonal or inflexible, apply particularly to unsupported platforms. Overall, therapist assisted platforms are seen as more helpful and 'acceptable' to young users, and our experience working on clinical trials of digital interventions suggests that an initial face-to-face meeting or assessment may help to build rapport.

Despite the empirical evidence and new guidance, mental health professionals (MHP) working with CYP also continue hold reservations about digital health interventions, and still typically believe that face-to-face therapy is superior to computerised CBT (Marzuki et al., 2017). Whilst this may in part reflect pre-existing biases from clinical training about what therapy *should* look like, MHPs also highlight the need for online treatments to be safe as well as effective, most notably in terms of monitoring and responding to risk. It is true that with greater flexibility and accessibility come new challenges for services, not least the management of risks or concerns raised in messages sent during unstaffed hours. Furthermore, CYP may disclose issues more quickly or easily online than face-to-face, with disinhibition being a known artefact of online communication. Services therefore need to carefully consider how they will assess suitability for remotely supported e-therapies and how they can be safely and effectively used with patients who present higher levels of risk (e.g. suicidality or self-harm) or care needs.

Given these very real challenges, there has been increasing attention to 'blended' approaches, where online support is provided as an adjunct to, rather than replacement for, face-to-face treatment. Not only do MHPs tend to be more supportive of blended models (Marzuki et al., 2017), there is also empirical evidence that 'face-to-face CBT plus computerised CBT' may be superior to either in isolation, certainly in adults (Erbe et al., 2017). Whilst more research on long-term cost effectiveness and outcomes in CYP is needed, blended approaches have the potential to reduce the relative load on costly face-to-face contact whilst boosting outcomes and treatment acceptability. In particular, app-based resources for completion of between-session worksheets, experiments and outcome measures may help to promote therapeutic engagement of CYP between sessions.

However, maximising this potential and integrating app-resources into existing care pathways will require closer collaboration between clinical, technical and online-industrial experts. Whilst there are thousands of developers releasing apps and online platforms in the field of CYP mental health, these are rarely adequately evaluated.

Blended approaches also have the potential to widen access to highly specialised treatments that currently often rely on proximity (and referral) to a specialist centre, whilst allowing local services to continue 'holding' cases for review and follow-up. For instance, an online, remotely supported behavioural intervention for tics ('ORBIT'; Hall et al., 2019), which is currently being trialled, offers the potential for young people with a chronic tic disorder to access evidence based therapies, whilst continuing to be monitored by their local service. ORBIT also provides a model for supervisory structures around remote delivery, with direct therapist support being provided by pre-qualified staff trained in the specific intervention but under the supervision of experienced clinicians. Integrating a parallel parent programme, the ORBIT platform will also help to assess the value of parental support in online interventions. Whilst active parental support may help to promote engagement and treatment adherence (particularly with younger children) we should also be mindful of challenges associated with parent-participation, most notably around privacy for the young person (Sayal et al., 2019).

Research has shown that digital therapies have great potential to improve mental healthcare for CYP and to address many unmet needs, but real-world implementation still lags behind. It should be recognised that taking interventions online still represents a paradigm shift in how mental healthcare is conceptualised, both by the public and the services delivering interventions. Going beyond a widening evidence base, a principal challenge now is the translation of digital interventions into existing service and commissioning pathways, and the creation of interventions that young people want and choose to use. This will be aided by better dissemination within clinical training and to the wider public that digital therapies *can work*, as well as research with service users and services to better understand barriers to implementation and what aspects are already working well (e.g. risk protocols). Enabling

closer collaboration between digital tech and clinical experts will also inevitably be key. Nonetheless, feedback from young people and MHPs also highlights that a human connection remains a crucial and valued ingredient in therapy that cannot be disregarded. Remotely supported or blended approaches are therefore likely to be key to creating safer and more engaging digital interventions, which are ultimately more effective and cost-effective in the real world.

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