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liferation of Smart-phones have resulted in an increased proportion of human-human interactions being mediated through digital technology, rather than being conducted face-to-face. Moreover, in many traditional human-human-human relationships, it is now possible for one human component to be displaced by software: for example in banking, shopping, and education, the interaction between service provider and the service user (bank manager-account holder, seller-buyer,

teacher-student) has been dimin-

ished or dissolved altogether, as

the service provider is supplanted

n the last decade.

the rapid rise of connectivity and the pro-

by digital technology.

The provision of health services has been similarly affected, and an increase in eHealth (1) and talk of Health 4.0 (2) is the consequence. Many people now use self-diagnosis websites prior to making an appointment with a professional and some types of healthcare services are increasingly provided by remote delivery. In some cases this can be highly productive: for example the use of video for general practitioner (GP) appointments

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The Good, the Bad, and the Aesthetically Challenged

Providing Online Counseling and Psychotherapy

can increase access and availability beyond normal working hours, reduce travel and waiting times, and decrease the chances of cross-infection in crowded doctors' offices.

The question addressed by this article is: can mental health services, which are traditionally provided by face-to-face human-human interaction, be similarly and beneficially revolutionized by the use of information and communication technologies? Like many professions, the therapy profession already uses digital technology for much of the non-therapeutic part of the

counseling service. Given also the ubiquity and acceptance of computer-mediated communication in so many other professions and "walks



of life," and given the reported rise in mental health issues as a pressing concern for public health (3), is it inevitable, or even desirable, that mental health services should also be provided over the Internet, by a computer-mediated human counselor, by some online self-therapy available through a video channel on some streaming service, or by even by a "Mental Health bot"?

For the sake of discussion, let us suppose then there are four ways of delivering therapy and counseling services:

- Face-to-face (F2F);
- Technology-mediated face-toface:
- Guided self-help therapy; and
- Artificial Intelligence (AI), i.e., a "mental health bot."

This article takes the conventional method, face-to-face therapy, as its baseline, and will be concerned firstly, with a discussion of the advantages (the good), and secondly with potential drawbacks (the bad), of technology-mediated face-to-face counseling or psychotherapy, or online therapy. This typically might involve Skype, Face-Time, Zoom, WhatsApp, email and in some instances, even text messaging. Thirdly, some comments on AI-based and self-help therapies (the aesthetically challenged) will be made. Finally, we conclude with some remarks on the implicit obligations on professional bodies to monitor technological progress against quality of treatment, and their role and responsibility in ensuring that considerations optimizing client health outcomes should take precedence over bottom-line cost reductions.

The Good

For the purposes of this article, we leave to one side whether or not digital technologies, such as social media and SmartPhones, might be the cause of mental health problems, e.g., through cyberbullying,

and other problems, such as visual and cognitive impairment (3). Instead, we begin with a discussion of possible advantages of online therapy: here we identify accessibility, convenience, affordability, nonstigmatizing, anonymity, and flexibility. We will discuss each in turn.

Accessibility

Seeking therapy to discuss personal issues is sometimes not an easy step to take. Firstly, it takes courage to find someone in whom a prospective client can confide and sufficiently trust. For many people these days, communicating via smartphones or social media isn't a problem, but it remains an issue that opening up about personal issues can be so difficult.

Online therapy can, of course, be more accessible to those who wish to be supported in that way, overcoming some of the barriers that might have otherwise precluded them from getting therapy. For example, individuals who are housebound due to physical or mental health issues; nursing mothers, or those living in remote areas such where trying to access face-to-face support on a weekly basis is simply a non-starter.

Accessing support in this way can remove barriers to finding support. It can also provide a lifeline for those uncomfortable sharing with their families and/or those they live with that they are in distress for many reasons be it religious and or cultural ones, or of shame and stigma (see below). In the 21st century, this can include some men from an older generation for whom seeking psychological support is akin to "weakness," failure, or not being able to "toughen up" and "just get on with it" as might have been the case for their forebears. For those who are uncomfortable, or are suffering from social anxiety or agoraphobia,

in comparison to sharing very personal information about themselves face-to-face with another human being, online therapy may be much less threatening

Convenience

Online therapy is convenient. Both practitioner and client are able to be more flexible with one another about timing and indeed the location of sessions. For example, if the client or therapist is away on business, this flexibility could offer the possibility that the therapeutic work remains uninterrupted. Also the therapist is able to extend their services right across the globe so appointments could be scheduled over 24 hours.

Affordability

Therapy delivered online has been shown to be more economical for both therapist and client. In the U.K., many struggle to afford the therapy they so clearly need and are often looking beyond state provision of mental health services due to lengthy waiting lists. In other countries, where health care is driven by a profit motive and there may be a hidden incentive to keep a client in therapy as long as possible, private therapy can often be beyond many people's budgets and online therapy is a cheaper and more manageable option. Many therapists themselves struggle to afford to rent suitable space so this way of working helps lower their overhead, commuting costs, and administration procedures, when compared to more traditional face-to-face therapy services. While some might argue this way of working reduces the human element of the work, it is one way of meeting the costs of increasing demands for mental health treatment, as both the incidence and seriousness of mental health problems rise in national populations (in

the U.K., especially the young (4), but also reportedly because of the Brexit referendum (5)).

Nonstigmatizing

Online therapy can also be effective in significantly reducing some of the social stigma associated with being in therapy. It allows access to such services in private without having to visit a physical counseling service — there is no chance of being seen in the waiting room by others, be it by other clients, staff, etc. Therapy can adopt a very different form when executed by the client in their own home through a computer or other such device.

Anonymity

As such, those clients engaging with online therapy are offered some degree of anonymity that may help reduce such stigma and so prompt them to seek support more readily, confidently, and comfortably. Some forms of online therapy can potentially help clients to communicate more openly without any concerns for bias such as gender, ethnicity, physical appearance, age, etc. This might help the client feel more comfortable with self-disclosure, which is something that many might find more threatening in a more traditional face-to-face therapeutic setting.

Flexibility

Therapy that is delivered via the written word, such as a series of secure emails, can offer client and the therapist alike a way to pay closer attention to their thoughts and feelings prior to expressing them verbally. Clients may be more comfortable communicating their distress in this type of environment as they are not affected by nonverbal cues.

Some find that writing during times of heightened distress can be particularly helpful for clients as it is considered to provide a vital tool for emotional reparation. Given that this form of online therapy is an interactive form of therapeutic writing, interventions delivered in this environment may be quite effective in encouraging clients to express themselves more thoughtfully and insightfully. Having a written record also allows the client to have some point of reference in future exchanges and especially when reviewing their work and evaluating some of the changes that have been achieved.

The Bad

Inevitably, perhaps, there are several potential disadvantages with online therapy. A number of limitations can be identified. Thes include the lack (or even loss) of verbal cues, and issues of security and confidentiality, efficacity, good faith, ethics, and boundaries, as well as a number of challenges presented by the technology itself.

Lack (Loss) of Nonverbal Cues

With online therapy, verbal and non-verbal cues and some body language are sometimes not visible to the therapist. Verbal and nonverbal interactions are key for gauging what the client might be feeling, thinking, and experiencing in the "here and now." Traditional face-to-face therapy relies at times on both verbal and nonverbal cues as a form of communication and as a way of gaining some insight into the clients' feelings and thoughts about their experiences and issues.

With online therapy, tone of voice, facial expression, body language, and eye contact are either completely missing or unclear, which might be due to the low quality of service provided by the network. This might preclude the therapist from making sense of such key cues.

Security and Confidentiality

Therapists have an ethical responsibility to maintain their clients' confidentiality and with online therapy there is an increased risk of this confidentiality compromised particularly with therapy that takes the form of the written word (email for example). Most sites have appropriate software that protects confidentiality, but it is absolutely key for practitioners to ensure that they do research into, and then upgrade the software used, in order to prevent any inappropriate security breaches.

In the EU, the introduction of the General Data Protection Regulation (GDPR) in May 2018 has given therapists the opportunity to revisit and or implement this vital aspect of their work.

Efficacity

The efficacy of online therapeutic interventions has come under scrutiny since, to date, there has not been much formal research on this way of working. Some professionals fear that a lack of "proper" face-to-face interaction might mean that they might miss a vital clue, thereby potentially putting their client at more risk of being in crisis.

Bona Fide (Good Faith)

Potentially, a client working with their therapist online has no assurances about their training and qualifications, and this could expose them to exploitation from inexperienced, unqualified individuals purporting to be a bona fide therapist. Therefore, it is essential that wouldbe clients be referred appropriately to credible and established counseling services and independent therapists. Equally, the clients themselves should source the requisite support through recognized and established organizations such as, in the U.K., the British Association of Counseling and Psychotherapy

(BACP) or the U.K. Council for Psychotherapy (UKCP).

Ethics

As online counseling services develop, therapists will need to pay attention to the legalities and the ethics of this form of practice. It is particularly essential when working with clients overseas as the Internet transcends some international borders and, in the U.S., states. Many legal and regulatory issues need to be considered. For example, is it legal for a therapist to provide online therapy to clients in a jurisdiction outside the boundaries of their own particular practice?

And how is quality service to be ensured if no one knows who is treating whom. Also, if a therapist does not know where their client is geographically located, how can they access help in the case of an emergency, for example if the client is talking about taking their life. It is much easier to respond to the immediacy of such risky situations with a client in the same room.

Boundaries

The vast majority of clients in faceto-face therapy don't make a habit of barging into their therapist's practice in between their sessions if they are in crisis - a key component of therapy is to foster resilience so that the therapist alone is not solely depended upon. When a client and therapist are in an online therapeutic relationship, a client who becomes distressed in between sessions may decide that therapist is their first port of call in the crisis rather than use some of their own inner resources/coping mechanisms/strategies. Inter-session contact needs to be carefully negotiated in advance and appropriate boundaries put in place, especially when there is a growing social expectation that everybody, including therapists, are always "on grid," 24 hours a day, 7 days a week.

Technological Challenges

Unfortunately, from time to time, Internet connections become fragile and computer hardware fails. Certain popular VoIP offerings are notorious for their once excellent, but now poor quality of sound and video, and the degradation in quality of service during connection. Some of those living in remote areas may experience sub-ideal transmission that drops out regularly, or there is always the possibility of servers crashing and network connections faltering. Any disruption of the session can cause the client distress. Also, benefiting from online therapy is in part dependent on a client's IT skills and knowledge, especially if it involves installing and familiarizing themselves with new pieces of software.

The "Aesthetically Challenged"

It is evident that online psychotherapeutic services are undergoing rapid growth. Moreover, the Internet has proved to be a useful resource for those who have poor mental health. This includes finding information on a myriad disorders and understanding the different approaches to counseling (e.g., person-centered versus cognitive-behavioral), as well as providing guidance on the most up-to-date treatment possibilities. One question then arises: could an extrapolation of these two trends converge with the provision of mental-health services through online self-help therapies delivered, for example by video (it could be argued that this is simply transforming the shelves of bookshops into an alternative form fit for consumption by the video generation)?

Anecdotal evidence suggests that taking part in guided self-help,

in any of its various forms, can be very helpful in certain circumstance, for example serving as a container while a client is waiting for appointments, especially in the face of long and lengthening waiting lists for appropriate treatment. Therefore self-help is not necessarily a bad thing — some intervention is surely better than none — and it can work well in conjunction with other good support, for example an empathic person who understand the situation, who is aware of when the distress is likely to turn into a crisis, and who knows what to do in such circumstances.

However, there are (at least) three potentially serious downsides. First, again, there are perhaps inadequate boundaries, as it requires considerable self-discipline to stay focused (and SmartPhones have been accused of impairing attention spans (3)). In traditional F2F treatment a client can't wander off halfway through a session - although, in fact, if a client mentally "checked out" in a F2F consultation, the therapist should identify a signal and investigate what is happening, if the person is dissociating for example (disassociating being a mental process that separates a person from, say, a traumatic event which needs to be worked through in therapy). Secondly, self-help should not replace F2F contact, for all the reasons already discussed. Finally, the availability of such relatively lowcost resources should specifically not be used as an excuse for cutting costs through cutting corners.

A second extrapolation of these developments might also converge with recent developments in Artificial Intelligence and machine learning, as it is possible to envisage a mental health chatbot or "TherapyBot" (6). While this particular vision may yet be some way off (notwithstanding that one of

the first AI natural language processing systems, ELIZA, simulated a Rogerian psychotherapist (7), (8)) there are some concerns with this approach.

Probably the biggest challenge in working with those in therapy (in whichever way the therapy is delivered) is identifying when a client might be at risk of serious self-harm, including suicide. In F2F work, the therapist should be able to gauge the client's mood, often through very subtle behavioral changes and subtle non-verbal cues. A mental health chatbot would have to integrate a number of visual and verbal cues in order to spot a potentially suicidal client, particularly if the client is "building up" to a first attempt where there does not appear to be an obvious correlation between signals and deed. Perhaps a machine learning algorithm could identify a pattern, but this would be a significant technological accomplishment.

Moreover, while clients may not necessarily frame it as such, loneliness is an extremely common presenting issue. A "TherapyBot" could potentially supplement part of the therapist's work, but it could not essentially replicate or recreate human contact with clients. Rather, human contact appears to be essential to the therapeutic relationship. The role of sociallyinteractive robots as surrogate pets seems to offer comfort, company, and stimulation for the elderly and in the treatment of dementia (9), but genuine rather than synthetic empathy seems to be the kind of contact and connection that is most needed to help a client develop and begin to recover. This appears, at least for now, to be something only another human being can offer.

Finally, issues of privacy, trust, and confidentiality are particularly salient. One of the key questions here is: would a "TherapyBot" be

able to recognize when confidentiality needs to be broken, and how? This is straying into the domain of machine ethics, for which there are also no easy answers (10).

Problems and Possibilities

In conclusion, digital technologies and online platforms offer a remarkable opportunity to enhance the human element of therapy, and many people are now being offered such life-changing opportunities to get support in their lives. It has enabled the therapy profession to be far more accessible to distressed and "in need" individuals who may not otherwise have been able to access face-to-face treatment.

For therapists thinking of embarking on this way of working, we have seen that there are certain things that need serious consideration. Online therapy clearly poses both problems and possibilities for clients and therapists alike. As such, both parties who wish to work in this way need to be fully informed of and familiar with the advantages and limitations of this type of intervention.

Moreover, due to ever-changing technological developments and broadening of our knowledge of how human relationships and cognitive functions are changed by technology and "being online," with those substantial benefits come potentially serious risks. Practitioners, both individually and collectively — especially through professional organizations — need to be super-vigilant, to ensure that the benefits outweigh the risks.

For the future, we may well see therapy services both private and state-provided that are able to blend state-of-the-art technology with more "traditional" services, in an accessible, cost-effective, and most importantly, efficacious way. Technology should never be seen an opportunity only to reduce costs, and certainly not as a complete replacement for creating a physical human connection that could help build the lasting change needed for a client to make a full recovery.

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