

UTILIZING DIGITAL TOOLS TO SUPPORT FACE-TO-FACE CARE: EXAMINING UPTAKE WITHIN THE PRACTICES OF AUSTRALIAN PSYCHOLOGISTS

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Abstract: *Societal adoption of mobile phones and other digital devices, and the resulting widespread digital literacy, allows for new possibilities in approaching and supporting face-to-face therapy. In this study, we examined the application of digital communication tools and media within therapeutic care by 33 psychologists across Australia. Uses of digital technologies were analyzed with a focus on both the approaches applied within face-to-face therapy sessions and those occurring as an adjunct to these sessions. In contrast to online counseling, established upon a foundation of digital technologies, the study results indicate that the use of technology in face-to-face therapy is still emerging but growing in scope and implementation. Areas of key and unique uptake by practitioners are identified, along with possibilities for future application. In outlining contemporary practices, a typology for the utilization of digital tools is presented, offering a practical framework for therapists to extend face-to-face care via information and communication technologies.*

Keywords: *face-to-face therapy, smartphone, digital literacy, mobile technology, digital health, face-to-face care.*



INTRODUCTION

Alongside countries such as South Korea and Sweden, Australia has established itself as a key consumer and user of mobile devices in comparison to the rest of the world (Pew Research Center, 2019). In 2017, 88% of Australians were identified as owning a smartphone (Deloitte Australia, 2017), ensuring they had a continuous Internet access and were “connected” throughout their daily life. With this ubiquitous adoption of mobile devices, a subsequent change can be identified in the practices of education, work, retail, government services, travel, and socializing by Australians (Australian Communications and Media Authority, 2017; Fagan, 2017). Furthermore, technologies such as smartphones, with in-built digital cameras, are allowing not only continuous access to digital media but also media creation, which facilitates easy capturing aspects of life for private and public documentation and review. Such capabilities allow for even further changes across sectors.

In this study, we examined the response of therapists in Australia to the adoption of mobile phones and other digital devices, such as tablets and laptops, and to the increased digital literacy across Australian society. Specifically, we reviewed the changes and new approaches applied in traditional face-to-face therapy using common digital technologies as well as identified potential future directions for practice.

The Australian government continues to identify mental health treatment as an area of national priority and innovation (Commonwealth of Australia, 2009, 2017). It has been reported that 45% of Australians aged 16–85 will experience mental illness¹ in their lifetimes (Australian Institute of Health and Welfare, 2018), and that, according to a major survey conducted 12 years ago, one-in-five working-age Australians each year experiences a mental illness (Australian Bureau of Statistics, 2008). Throughout the last decade, in response to these statistics, sustained focus has catalyzed development and application of digital technologies in online therapy and e-mental health initiatives throughout the country. As a result, Australia is regarded as a world pioneer—alongside the Netherlands, Sweden, the United States of America, and Canada—in developing e-health technologies and online programs for common mental health conditions such as anxiety and depression (Christensen & Petrie, 2013; Orman & O’Dea, 2018). Such initiatives have resulted in the emergence of a number of successful nationwide online services, including ReachOut.com, e-couch, and BluePages, among others (Christensen et al., 2014). Despite this success and the online services providing larger scale and cheaper access to people struggling with mental health issues, a perception continues that face-to-face mental health services provide more effective and better quality support to people (Casey & Clough, 2016; March et al., 2018). The in-person model is regarded as preferable because it is perceived as more trustworthy and allows for a greater level of engagement (March et al., 2018).

Within this context, we evaluated the level of change in practices occurring within the face-to-face care by a small sample of accredited Australian psychologists amid the digital transformation in Australian society. In doing so, the research operated as a pilot study, allowing us to begin to address a distinct research gap within the field of therapeutic care and the use of digital technologies. Through our research, we gauged the extent and type of digital technology and media use among a sample of practitioners by, firstly, identifying any forms of digital technology being applied and, secondly, examining the methods and approaches employed with this technology, both within face-to-face therapy sessions and those occurring as an adjunct to these sessions. As well, we explored the participants’ future expectations and aspirations for the use of technology within practice, which also serves to identify areas of resistance or concern.

TECHNOLOGY AND THERAPEUTIC CARE

The application of technology in face-to-face mental health care continues to be contentious (Feijt, de Kort, Bongers, & IJsselsteljn, 2018; Perle, Langsam, & Nierenberg, 2011; Richards, Simpson, Bastiampillai, Pietrabissa, & Castelnovo, 2016). Present-day face-to-face therapy, operating in a similar format to Sigmund Freud's foundational practice, is based at its core upon direct communication and interaction between the therapist and client in a private setting. In this context, issues are explored through conversation and areas for change identified and approached. Because traditional therapy is driven by intimate discussion, many practitioners hold the attitude that the presence of technology in its various forms could detract from therapy's prime focus (Haberstroh, Parr, Bradley, Morgan-Fleming, & Gee, 2008; Lovejoy, Demireva, Grayson, & McNamara, 2009; Richards et al., 2016). This opinion exists despite that care often has utilized pen-and-paper activities and other therapeutic tools to stimulate reflection and discussion.

Possibilities for the use of technology in face-to-face therapy continue to be considered, however, resulting from the emergence and evidence-based success of online therapy and e-mental health (Perle et al., 2011). This constantly expanding branch of therapy—also referred to as online counseling, Web counseling, Internet psychotherapy, and other terms in different contexts (Barak, Klein, & Proudfoot, 2009; Kyrios & Thomas, 2014; Patrick, 2007)—in contrast to face-to-face therapy, utilizes technology as an integral component in the therapeutic process. This area operates with diverse modalities (Barak, Hen, Boniel-Nissim, & Shapira, 2008; Casey & Clough 2016; Lal & Adair, 2014; Short & Thomas, 2015) and entails therapy enacted through both real-time communication via chat rooms and/or video conferencing (synchronous communication) and time-delayed communication, such as through e-mail or message interfaces (asynchronous communication). Further, online therapy has led to models referred to as “therapist-less therapy” (Short & Thomas, 2015, p. 36), which can include custom-designed apps and websites used to guide clients (or users) through a series of resources and activities, some of which track and respond to progress. Therapist-less care also has been proposed around robotic solutions and virtual reality (Christensen & Petrie, 2013). Mohr, Burns, Schueller, Clarke, and Klinkman (2013) referred to such initiatives as “machine-powered interventions,” which further distinguishes them from traditional therapist-delivered services.

It is now becoming common for psychological care to be addressed solely online and outside face-to-face therapy (Clough & Casey, 2011a; Gupta & Agrawal, 2012). Increasingly, research has demonstrated that these technology-driven approaches are as effective as face-to-face care (Andrews, Cuijpers, Craske, McEvoy, & Titov, 2010; Barak et al., 2008; Cuijpers et al., 2009; Firth et al., 2017). Despite this research, the application of technology in treating mental illness continues to be debated (Baker & Ray, 2011; Barrett & Gershkovich, 2014; Harris & Birnbaum, 2015; Perle et al., 2011) and face-to-face therapy continues to play a central role in treating mental health issues.

Although research examining the use of digital technology within face-to-face therapeutic interventions has been limited (Boschen, 2009a, 2009b; Clough & Casey, 2011a, 2011b, 2015; Eonta et al., 2011), some technologies increasingly have been integrated successfully. Clough and Casey (2011a, 2011b) identified a series of unique approaches that mobile adoption can provide to face-to-face therapy, including with ecological momentary assessment, previously conducted with pen and pencil questionnaires, and the delivery of relaxation exercises. Studies also have indicated that client adherence to the therapeutic process can be encouraged by what can be

referred to as a “non-intrusive connection” (Clough & Casey, 2011b; Richards & Simpson, 2015). A consequence of this approach can be that, via a smartphone, other digital communication technology, e-mails, texts, and the like, clients may perceive that her or his therapy is extended beyond the traditional 1-hour consultation per week. Providing therapy support in such a way has been found to improve self-monitoring (Harrison et al., 2011; Wiederhold, 2012) as well as between-session engagement, homework compliance, and appointment attendance (Boschen, 2009a; Clough & Casey, 2011b; Murdoch & Connor-Greene, 2000).

Recently, Orman (as cited in Lyons, 2018) emphasized the strengths in using various types of existing e-therapy in combination with face-to-face care to address multiple conditions. Orman suggested a therapist might focus on deeper relationship-based therapy in-person with a client, while the client simultaneously engages e-mental health resources to learn basic skills. To explicate this multitiered approach, Orman illustrated with a client who suffered from an eating disorder and severe anxiety, a common experience for many people worldwide. The client would access anxiety management skills through an online program, leaving more time for addressing the many complex, often foundational, issues of the disorder within face-to-face sessions. Such a best-practices strategy, which sees combining e-mental health resources with face-to-face therapy approaches, has been recognized recently and accepted as a comprehensive therapy model by the Royal Australian College of General Practitioners (2018).

Limited research also has been conducted into applying mobile phones and digital technologies as part of face-to-face care through the use of digital videos, audio files, and photos (Boschen, 2009a; Boschen & Casey, 2008; Eonta et al., 2011). In this process, a client accesses mixed media content via a device, records such content on it, and utilizes it in different contexts. Recording content has been explored specifically within the treatment of phobias. Boschen and Casey (2008) observed how a client who is arachnophobic can record, via his or her mobile phone, pictures or videos of a spider then use this material in face-to-face care and subsequent homework exercises based on exposure. Further, Eonta et al. (2011) outlined three case studies in which media were recorded onto smartphones, demonstrating the diverse ways such a model can support therapeutic care. Their first example, related to compulsive hoarding, entailed a series of digital photos taken by a client in an ongoing basis documenting her home. This material was used in therapy sessions to identify progress in relation to the behavioral pattern. The second example involved the audio recording of in-session relaxation exercises led by a therapist. Following this, the client accessed this material outside of therapy via a digital device for ongoing use. The final example entailed a client using a smartphone to photograph material on a white board developed during a therapy session. The resulting image, constituting a pie chart in the client’s handwriting, then became discreetly accessible to the client at all times on a phone, thus serving as a beneficial tool in developing the client’s cognitive coping skills.

Clearly, such examples identify valuable possibilities for the use of digital tools to support therapy. However, research identifying the level in which these approaches are employed has yet to be explored within or integrated into the practice of contemporary psychologists.

METHOD

We undertook our pilot study into current digital use practices through the distribution of an anonymous online survey to a sample of accredited Australian psychologists. The psychologists

were alerted to the survey by the Australian Psychological Society (APS), the national body for certified practitioners, who distributed the survey information and a survey link. The APS announced the survey through both a short article in the members' section on their website and in their digital newsletter, *APS Matters*, sent directly to members via e-mail. This focused distribution approach ensured the authenticity of participants and that all were certified therapists (i.e., licensed therapists with a master's or doctorate degree). Participation occurred on a voluntary basis and with no compensation offered. The distribution channel for the survey information meant that all digitally connected APS members (approximately 24,000 professionals across Australia) received the invitation to participate in this study. Despite this large potential base, we expected that the overall response rate for the study would be low and suitable only for a pilot study. We based our expectation on the fact that multiple research surveys and studies are promoted frequently through the APS network; it is the primary means of engaging practitioners nationally. Thus, due to the volume of research requests, it is common for members to opt in to studies in which they have a particular interest. As a result, typical research participation through this distribution channel remains low. This study comprised 33 participants.

The survey (Queensland University of Technology Ethics Board approval number 1600001150) consisted of four central questions:

1. Which best describes your area of specialization?

This operated as a simple multiple-choice question that allowed each participant to identify her or his professional background. The options offered were Private Practice, Educational Institution, Other Government, and Other Non-Government.

2. Have you used any digital tools as a complement to or element in your face-to-face care with clients?

In the survey, the term "digital tools" was defined as the application of digital video, digital audio recordings, Portable Document Format (PDF) files, e-mail, texting, social media, digital video conferencing (e.g., Skype), and other Web-based or digital resources. This encompassed the major forms of interaction and communication processes available via smartphones and other digital devices (iPads, laptops, etc.). The scope of the technologies included was determined through reference material (Goggin & Hjorth, 2014; PC Magazine, 2017). In cases where the participants indicated applying digital tools, the system generated another question asking respondents to identify, from a list based on the definition, which tools were used. For each category identified in this question, respondents were asked to supply details of their digital application in an open-ended format. This allowed participants to detail multiple types of application across the one category.

3. What opportunities can you see for the use of digital tools in your therapeutic care with clients but have not employed for use at this point? If none, please indicate this and provide any additional comments you may like to add.

This open-ended question allowed participants to identify further areas of interest and to speculate on their own future practices. It also provided an opportunity to critique the use of digital tools in therapy and identify barriers to implementation.

4. In general, how comfortable are you using new technology?

This question allowed participants to reflect on their perceived levels of digital literacy using a 5-point Likert scale. Participants were asked to identify their relative comfort with using new technologies in a range from *very comfortable* to *very uncomfortable*.

We used the KeySurvey software to create the online survey, with a secure connection feature applied, and it was hosted on a Queensland University of Technology server. Data reflecting the response configuration of the survey indicated that informants took between 10 and 40 minutes to complete the survey, depending on the participants' experiences.

The methods for data analysis involved a statistical analysis of the closed-ended questions and thematic analysis of written responses to the open-ended questions. All responses were anonymous yet trackable to individual respondents through the generation of reports using KeySurvey. Due to the small sample size ($N = 33$), we researchers undertook the qualitative analysis by hand, without software. In reviewing the qualitative data, both researchers independently analyzed responses in order to authenticate emerging patterns and themes (Guest, MacQueen, & Namey, 2012). Responses indicating unique approaches to practice also were identified in the data analysis and incorporated into overall findings. We then developed a conceptual typology of practice using the established four-step process based on commonality and variation (Given, 2012).

RESULTS

The 33 psychologists from across Australia who participated in the pilot study outlined their current usage of digital tools within their face-to-face care, as well as views on future technological application and issues surrounding this. All the participants completed the survey in its entirety and the sample represents a small selection from the greater body of psychologists around the country. Participants came from a mix of professional backgrounds: The majority came from private practice (19 participants; 58%), with the remainder from educational institutions (6 participants; 18%), other government organizations (4 participants; 12%), and other nongovernment institutions (4 participants; 12%). A large majority (27 participants; 82%) reported being comfortable with using new technology, opting to say they were either "comfortable" or "very comfortable" on the five-point Likert scale. Only two respondents (6%) indicated they felt "uncomfortable" or "very uncomfortable" when using new technology.

Digital Tools Usage

Of the 33 psychologists, 31 (94%) indicated that they had used digital tools as an element of, or complement to, their face-to-face therapy with clients. When the positive respondents were asked to identify specific digital tools from a list of categories, they selected several. Figure 1 displays the quantitative responses from the sample group. Findings based on replies to the prompted open-ended questions relating to each category and detailing the type of usage are provided below.

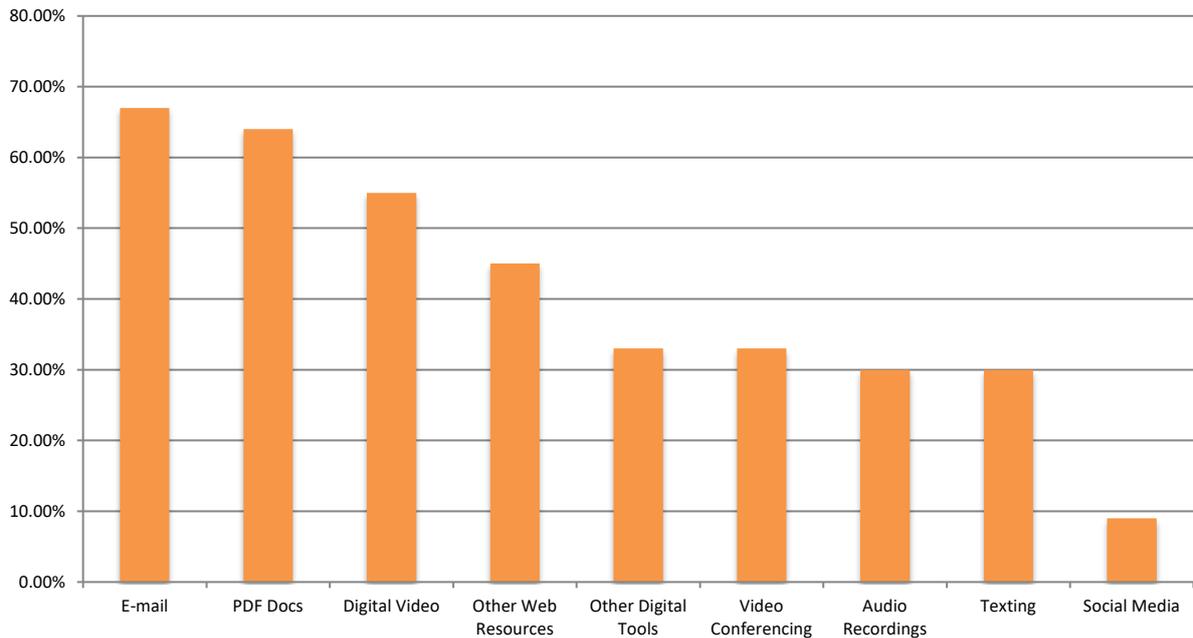


Figure 1. Use of digital tools by Australian psychologists within face-to-face care.

E-mail

In all cases, e-mail was utilized as an adjunct to face-to-face therapy, and in most cases, it was used for communicating with clients on a purely administrative level. Key usage included organizing and confirming appointments, reminding clients about appointments, and distributing PDFs for homework and supplementary reading.

Half of the respondents within this category (11 participants) also reported an additional use beyond administrative functions, where e-mail communication provided further therapeutic support. These respondents indicated this typically involved responding to clients who e-mailed when in crisis. Additionally, therapists cited using e-mail communication to undertake checkups and participate in general problem solving with clients. Notably, some respondents were critical of this form of communication, with one observing, “This has become a 24/7 sort of society, and with that comes the blurred lines of boundaries.”

PDF Documents

PDF files were used within the therapeutic practice of 21 respondents. These files resemble a printed document but can be sent and retrieved on digital devices, such as a smartphone. Moreover, PDFs may include interactive elements, allowing readers to input information into a document and return it via e-mail to the sender. Respondents indicated they typically used PDFs to replace traditional paper printouts of homework and reading material.

An advantage of PDF use as indicated across responses was that, although paper printouts necessitate distribution to clients during therapy sessions, PDF documents could be sent to clients at any time, including in times of need. Respondents indicated that PDF material sent to clients also included tip sheets, brief exercise handouts, and, frequently, psychoeducation-based selected

readings. Although most material distributed was preexisting and selected by the therapist for specific use by a client, two respondents indicated they also had created original PDF-based material for clients.

Digital Video

Half of the respondents who cited digital video usage (9 of 18 participants) employed multiple forms of digital application (i.e., more than one type) within therapeutic practice. The most commonly applied by the therapists was the selection, or curation, of specific, preexisting content from a video sharing platform, such as YouTube or Vimeo, for a client to view. This was employed by 17 participants in the sample group. Respondents indicated that they typically selected material for one of two key purposes: to assist clients who needed additional support outside counseling hours or to provide materials as part of a defined homework program. The two primary video content subject areas indicated by respondents were mindfulness/relaxation-based materials and psychoeducation-based materials. Mindfulness and relaxation materials ranged from professional mindfulness training videos (including ones designed for children) to relaxation music videos consisting of “chillout” soundtracks² accompanied by images of nature and other graphics; these typically had been uploaded by independent video makers. Cited psychoeducation materials included both general information videos and guided practice videos.

Thirteen respondents in this category (72%) identified that viewing video material occurred outside, rather than during, face-to-face therapy sessions. In the case of respondents identifying that they had clients watch short videos within therapy sessions (five participants), this viewing served as a stimulus for subsequent face-to-face discussion. In the case of two respondents, this involved viewing clips of specific scenes from movies that were available on YouTube and Vimeo, indicating an application of cinema therapy (Short & Thomas, 2015). For the three remaining respondents, this entailed clients viewing originally created video content within therapy sessions, which occurred in two distinct ways. The first involved clients showing videos to the therapist that they had shot outside of therapy, and this formed the basis for reflection and discussion within a session. An example identified here was a video of a parent (the client) and their children interacting; the parent and therapist viewed this footage during their session to discuss “parenting strengths and struggles.” The second approach entailed the therapist showing videos previously recorded within therapy sessions with client consent as a focus for discussion. The participant utilizing this approach stated that this allowed for explicit feedback to occur with clients to “improve skill development and raise self-awareness.”

Digital Video Conferencing

Within the sample, 11 respondents indicated they had used video conferencing (e.g., Skype, Zoom, etc.) as an alternative to in-person face-to-face therapy when circumstances necessitated it. Reasons identified for this were where a client was overseas for an extended time, relocated elsewhere temporarily or permanently, or housebound. Respondents acknowledged that clients covered by private health care were far more likely to utilize video conferencing as an alternative to in-person face-to-face sessions, while those relying on public health care were less so. The reason cited for this reality is that currently only in-person face-to-face sessions are covered by the Australian public health system (Medicare) with a financial rebate.

Digital Audio Recordings

Although the application of digital video varied, the usage of digital audio was consistent across respondents. Nine of the 10 participants who reported using digital audio recordings identified that these exclusively consisted of meditation and relaxation-based recordings for clients. Entailed here was a combination of guided meditations, guided breathing exercises, relaxation music, and nature soundtracks. In all instances, respondents used preexisting online material and no therapist indicated self-produced audio material. In all cases, nearly all clients utilized this audio material outside face-to-face sessions, not within.

One respondent did report employing audio recordings within therapy and this involved original client-created audio recordings. This same practitioner used original video recordings of a client interacting with their children. In the case of the audio recordings, audio was recorded by the client to document daily activities and communication for discussion within sessions with the therapist.

Texting

Ten participants reported texting clients. As with e-mail, texting was used predominantly as an administrative tool, particularly for appointment scheduling and reminders. Additionally, four of these respondents indicated a further use of texting in a therapeutic-based capacity. In this context, respondents identified that they may text with clients to encourage or chat with them on a specific topic. One participant stated texting had replaced the need for phone conversations with clients, hence allowing for a typically asynchronous form of communication rather than immediate verbal communication. Texting for this type of communication was identified as being easier to manage than phone calls with clients.

Social Media

Only three participants cited using social media within their practice. Social media encompasses websites and applications that allow users to create and share content and to engage in social networking. It includes platforms such as Facebook, Twitter, LinkedIn, Google+, Instagram, SnapChat, WeChat, Instagram, and Pinterest. Respondents employing social media reported its primary use was to distribute therapeutic material and communicate information to clients, with therapists opting to do this via a client's social media account rather than e-mail. In describing the use of social media, no respondent indicated reviewing a client's social media profile and/or posts as part of therapy, or having a client access a social media profile during face-to-face sessions for discussion or reflection.

One respondent did report establishing a closed social media group, consisting of a number of clients experiencing similar conditions. This respondent posted directly to this group and encouraged members to network and support each other through social media communication.

Other Web-based Resources

Fifteen respondents (45%) reported that they used additional Web-based resources as elements of and/or complements to face-to-face therapy, with all utilizing specific websites. The most referenced

websites were Smiling Mind, followed closely by Beyond Blue, Headspace, and MoodGym. Smiling Mind³ is an Australian not-for-profit organization site providing mindfulness meditation programs. Beyond Blue⁴ is an Australian not-for-profit organization site addressing and raising understanding of anxiety disorders, depression, and other mental disorders. Headspace⁵ is part of a government initiative addressing Australian youth's mental health and well-being; the site offers support on issues including depression, sexuality, bullying, and alcohol and drug use. MoodGym⁶ is a website based on cognitive behavior therapy principles developed by the Australian National University to assist treatment of depression.

In terms of other Web-based resources, five respondents also identified using some form of online assessment tool or service to assist during client therapy. In most cases, this tool or service was located on the website(s) used as part of care.

Other Digital Tools

Further, 11 participants (35%) reported using other digital tools within their practices that were not previously mentioned in the survey. All respondents except one specifically cited the use of multiple apps. Apps are software programs downloadable onto a mobile device, designed for a specific purpose, and typically are used on a continuing basis. In the survey, the most regularly applied apps identified were Smiling Mind and BeyondNow (the Beyond Blue app), both of which are connected to parent websites. Like the website, the Smiling Mind app supports mindfulness and meditation practice. In contrast, the BeyondNow app is aimed specifically at suicide prevention.

Respondents further identified utilizing a range of apps to promote behavioral change and allow behavioral tracking by clients. This included a variety of general-use mindfulness apps as well as mood tracking apps. Also utilized were everyday health-based apps, with respondents remarking that these assisted clients with fitness and healthy eating, which benefitted overall well-being. Four respondents identified using apps specifically designed to support the treatment of alcohol and drug issues, with two reporting utilizing alcohol-monitoring apps. Two respondents also cited the use of sleep monitoring and sleep assistance apps for clients.

Beyond respondents identifying the use of apps, one noted a further use of mobile phones as a digital tool for care. This entailed having clients set their mobile phone alarms for times throughout each day to provide a series of reminders to cue new behavior and thinking.

Identifying Future Applications of Digital Tools within Practice

From the question asking participants to comment on perceived opportunities for digital tool usage in future practice, we identified a variety of options. Most cited, by 25% of the participants, was using video conferencing as an adjunct to, but not replacing, face-to-face therapy sessions. Respondents here acknowledged, however, that the current Australian government public health system policy did not support moving in this direction.

Within the sample, five respondents also showed specific interest in utilizing new tools, especially apps, to allow them to better evaluate and monitor clients through tracking. Respondents in this case, though, did note they were uncertain of options available for this. Two respondents stated they desired an evidence-based and accredited all-in-one app. It was suggested that this type of innovation would allow a therapist to easily customize complete treatment plans

and tracking tools for clients and then to utilize this throughout care. Some proposed that such an app could allow a therapist to select and design interactive homework activities for clients, create and curate reading material and video content for clients, provide appointment details and reminders, and allow for asynchronous digital communication between therapist and client.

In terms of suggesting areas of future practice, the majority of respondents identified areas of technological use already evident in the practice of other participants within the study. For example, a number cited filming the clients or having clients film aspects of their lives on their smartphones, and utilizing these clips within face-to-face therapy sessions. One respondent expressed interest in recording actual therapy sessions and then replaying them to clients as a means to discuss progress in treatment.

Four respondents also identified possibilities in recording original content for clients that they could access outside of therapy sessions via devices. One respondent indicated an opportunity to create instructional videos that demonstrated breathing techniques to clients, while another had a desire to record personalized cognitive behavior therapy material in video and audio formats for clients to access on their mobiles.

Markedly, within the study's speculative section, one third of participants identified either a general uncertainty or lack of knowledge of further opportunities for the use of technology within face-to-face care. Within this group, four respondents pointed to a distinct need for further education for therapists in this area of practice. Related to this, more than half of the respondents (17 participants), throughout the entire survey, raised the issue of requiring more educational training and guidance relating to technology application in face-to-face care. In addition, some respondents raised specific concerns about any use of social media in association with practice, citing professional boundaries as an issue.

DISCUSSION

Within the sample of practitioners, albeit limited, evidence suggests that a transformation of practice is occurring as digital technologies are utilized within and as an adjunct to face-to-face therapy. This transformation, however, appears inconsistent across our group of informants and we identified a gap in educational support to assist the occurring change in practice. It bears acknowledging that the study reflects a self-selected group of individuals identifying themselves as generally tech savvy; all respondents showed an interest in actively participating in the study, even without compensation. One might surmise that a random sample of practitioners across the country may be less knowledgeable and/or disinclined to apply digital technologies. Further investigation is warranted to determine the strength of that supposition.

Even though the sample group is small, the results serve to reflect a series of case studies and to identify insights from multiple contemporary therapeutic practices that are greatly needed within this emerging field. As a pilot study, our research results demonstrate that further research is required on a large scale to ascertain levels of implementation, educational needs, and opportunities for future practice.

The participants in this study indicated a desire to utilize technologies within their practices when appropriate and beneficial to clients. On the other hand, they expressed a general uncertainty about the various approaches. A large-scale study could serve to highlight and validate new models for integrating digital media into mental health services and to further

educate counseling professionals. An acknowledgement of educational limitations in this area also has been indicated within *e-Mental Health: A Guide for GPs*, produced by the Royal Australian College of General Practitioners (2018). Likewise, Firth et al. (2017, p. 21) suggested, “Future research should investigate pragmatic approaches for integrating smartphone support within existing health services.” Initiatives such as eMHPrac, the e-Mental Health in Practice project, funded by the Australian Government, aim to raise practitioners’ (i.e., general practitioners, therapists, other health officials) awareness and knowledge of digital technologies and therapeutic tools (eMHPrac, 2018). However, this initiative is based largely on connecting practitioners to tested online therapy resources. Not currently incorporated into any such approaches is the reporting, analysis, and dissemination of the more experimental practices emerging specifically within face-to-face therapy.

With the aim of further educating practitioners, the findings of this pilot study offered insights into a foundation for a practical framework for therapists in considering applying digital tools within face-to-face care. Drawing from the study’s findings is a typology, displayed in Figure 2, which shows the various ways smartphone and digital technologies are currently employed and could be utilized within contemporary practice. This typology allows practitioners to better consider options and opportunities as they develop treatment plans for individual clients. The typology is categorized by type of usage, not the specific digital tool used. Thus, it explicitly allows practitioners to understand the possibilities for their practices with the increasing range of

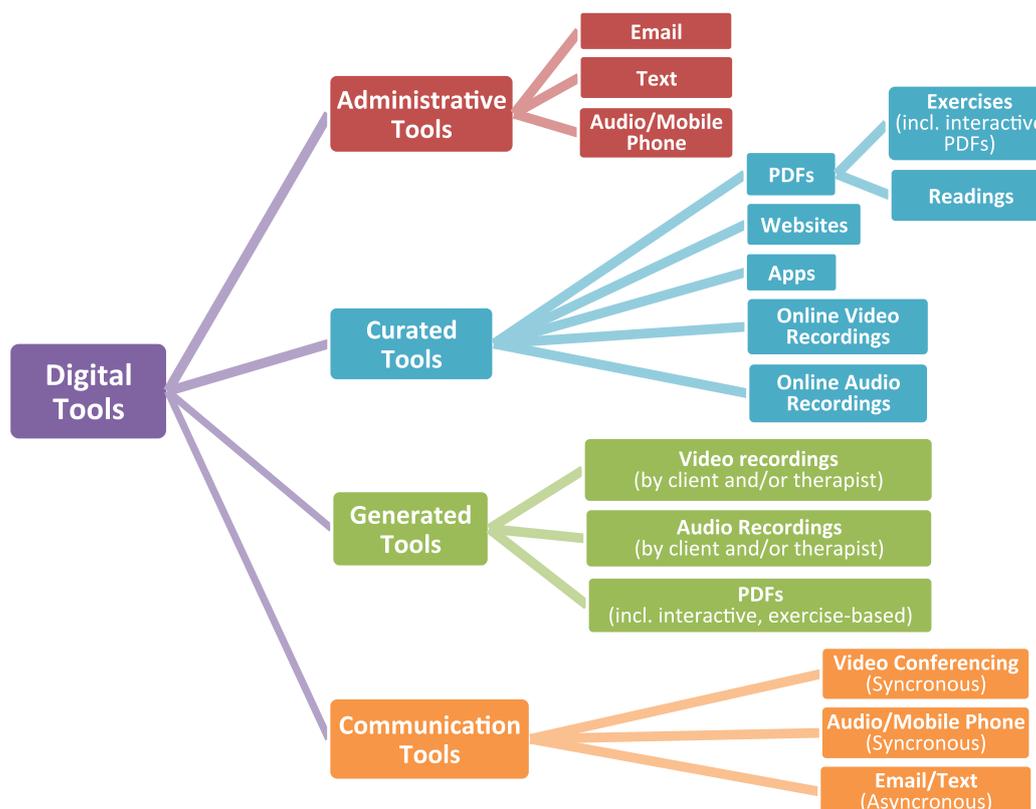


Figure 2. Typology of digital tools for use in face-to-face care.

emerging digital tools. It assists in identifying digital technologies that people use in everyday contexts as tools for specific actions and the potential for counseling contexts. Moreover, this typology supports interested therapists in navigating the diverse options and considering more efficiently what opportunities might best serve their therapy plan for a specific client.

The typology operates by dividing usage into four key categories: Administrative Tools, Curated Tools, Generated Tools, and Communication Tools. Administrative Tools encompasses tools for organizational services related to a client and her or his treatment and does not include the therapeutic process itself. Curated Tools relates to preexisting digital resources and material selected by a practitioner for use by a client. This category represents the most widely applied use of digital tools within face-to-face care identified within this study. In contrast, Generated Tools represent therapeutic resources created by the client and/or therapist using a smartphone or other digital device. This category highlights an emerging area of practice identified within the study, in which both therapist and client are producers of media and content that is intended specifically as a matter of treatment for the client. Significantly, this approach was referenced widely by the participants as a future expectation for use of digital technologies. Finally, Communication Tools encompasses digital technologies allowing therapeutic discussion to occur between therapist and client outside of in-person face-to-face therapy sessions, establishing therapy beyond the traditional “therapeutic hour.” This category encompasses both synchronous and asynchronous media forms.

In terms of future application, such a typology might be useful as a point of discussion with clients in identifying communication and media preferences when planning aspects of treatment. Determining a client’s individual needs and communication and media inclinations can allow therapists to select and even develop certain tools and technologies identified as more appropriate and meaningful in terms of potential impact. For example, rather than a practitioner automatically texting a client about appointment reminders and recommending selected digital readings for cognitive behavior therapy and YouTube videos on mindfulness, as they may do with other clients experiencing similar conditions, other approaches—tailored explicitly to the needs, preferences and abilities of a specific client—are actively considered. Undertaking a conversation with a client based around this typology could potentially identify more beneficial approaches. Due to privacy concerns, e-mail may be determined as preferable for messages to this client as opposed to less discreet text messages, or it might be established that she or he prefers video-based cognitive behavior therapy information rather than reading material because he or she is a visual learner. Through therapist–client discussion, it also may become apparent that an audio format is preferable for certain resource material because the client commutes on public transport daily and has an established routine amenable to listening to podcasts. Furthermore, through conversations centered upon this typology, a client may be prompted to express a desire to have access to specific material not otherwise considered. For example, while discussing the options within such a typology, the client might express a preference for recordings of mindfulness practices undertaken during the therapy sessions, as opposed to utilizing a third-party resource; such a tool would provide greater value as a client feels more connected to this for use outside of sessions.

From this study, a good number of our respondents have identified a variety of approaches and resources now being utilized within care. What is not evident, however, is how these tools and processes have been selected and whether practitioners have designed a unique digital media plan for each client. Utilizing a typology such as in Figure 2 provides a foundational structure for a more informed and considered way to integrate continually emerging digital resources into face-to-face care.

Utilizing Social Media Within and as an Adjunct to Face-to-Face Therapy

In developing this typology, a notable exclusion in it is arguably the most pervasive form of digital communication to emerge over the last 10 years: social media. Within the study, both in terms of current usage and identified future opportunities, minimal recognition was made of social media. Although some respondents acknowledged use of social media for administrative duties, other participants were highly critical or apprehensive of any use of it across practice. One exception to this was the sole respondent who established a closed social media group for clients experiencing a similar condition. As a result of the broad negative response, as well as the lack of engagement and consideration for future use, we did not integrate social media into the initial typology of practice, which is intended as a workable guide for therapists.

The lack of engagement and hesitation by respondents is understandable when one considers the minimal precedent for use and the potential ethical issues arising from integrating social media content and communication into therapy. Issues surrounding client privacy and encroaching on professional boundaries within this context have been documented (Giota & Kleftras, 2014; Kolmes, 2010). Despite this, however, social media continues to be an integral part of everyday life for the majority of Australians (Deloitte Australia, 2017), and popular platforms such as Facebook have been reported as fostering high levels of self-disclosure through social sharing (Moreno et al., 2011). As a consequence, a potentially unprecedented resource exists through which to gain an insight into a client's situation, track progress, and anticipate issues.

Discourse attempting to establish an ethical position and distinct policy and framework in regard to social media continues to emerge across the literature (Anderson & Guyton, 2013; Giota & Kleftras, 2014; Jordan et al., 2014; Reif & Much, 2017), and recent research has focused on less intrusive ways for client social media feeds to be tracked and reviewed. Responding to privacy concerns, anonymous "observer" data gathering technology and mood tracking data analytics are now being developed (De Choudhury, Gamon, Counts, & Horvitz, 2013; De Choudhury, Kiciman, Dredze, Coppersmith, & Kumar, 2016; Mohr, Zhang, & Schueller, 2017; Morris & Aguilera, 2012). In the future, therapists could feasibly employ such software to scan Facebook and other social media platform posts of identified clients for suicidal ideation and/or potential self-harm on an ongoing basis, with the practitioner notified if concerns are raised. While not an option currently, if technology continues to develop in this direction and therapists are guided by relevant policies, one can expect social media to be further integrated into the practice of face-to-face care and thereby future iterations of this typology of digital tools.

Further Implications for Practice: Designing for Breaks in Therapy

Within the application of digital tools identified in this study, it is evident that although some tools are utilized during therapy sessions, the majority play a role outside face-to-face sessions. This leads to a further consideration of digital tool use not identified specifically within the study, but warranting further exploration. This entails the development and application of such tools as an adjunct to face-to-face therapy, beyond face-to-face therapy. Situations where such tools could potentially benefit clients might be when a therapist takes an extended leave, face-to-face care becomes less frequent due to less overall need, or therapy ceases as a client completes treatment. Due to the media and technology options now available, therapists can offer a variety of personalized digital resources that may prove more beneficial than providing a series of

standardized, printed resources, as is often the case in such scenarios. Instead, therapists can effectively design a unique set of digital tools to best support a client during a sustained break from therapy. A therapist may recommend and even create digital tools that reinforce key aspects of treatment and anticipate potential client setbacks. Within this context, the typology of digital tools could provide a comprehensive framework through which to develop a customized set of resources for specific therapeutic treatment or breaks.

In terms of application in this context, one could expect that not only curated tools but also generated tools are likely to be central to the provision of best digital therapeutic support. A therapist, for example, might record a series of personalized mindfulness meditations or cognitive behavior therapy guidance talks for a client in preparation for a break. Similarly, resources could be developed in anticipation of specific situations an individual client might face. For example, a therapist might create a digital video or audio recording to support a client with a history of travel anxiety for when she or he is undertaking a plane flight or to offer guidance to a client struggling with alcohol consumption in preparation for attending an event where alcohol will be freely available. In such cases, the resource material is formulated around the specific needs and communication preferences of the client and would be immediately accessible wherever the client may be, on a smartphone, even after therapy has ceased. Significantly, such customized tools can be accessed during potentially triggering events as they happen. Certainly these avenues indicate further possibilities in the adaptation of therapeutic practice within the changing technological landscape.

CONCLUSIONS

Opportunities abound for face-to-face therapeutic practice to be transformed as society moves further through its digital age. In this paper, we have identified how, for a sample of Australian psychologists, the move to extending care through new digital literacies and technologies is underway. At the same time, it demonstrates that this process is still just beginning. The study indicates a series of changes one might expect to see as digital and media transformations continue to advance across societies, and others that represent unprecedented developments in therapeutic practice. For instance, the adaptation of traditional print readings to digital PDF files and viewing online videos reflect a straightforward replacement for and complement to older technologies/approaches. This situation replicates much of what has been observed throughout the rise of the Internet and the digital age (Wellman & Haythornthwaite, 2002). Concurrent to this, however, are changes that are based not on simply updating to new media forms, but ones indicating more foundational shifts. Arguably, most significant here are practitioners and clients becoming content creators and utilizing what has been termed “generated tools” within this study. Such developments signal major innovation in how face-to-face therapeutic care can be undertaken in a contemporary context.

The findings of this pilot study indicate a need for further, large-scale research in the field to identify emerging practices and the future possibilities with digital technologies. While a limitation of the study has been its small sample, we are currently building upon this pilot study’s findings and engaging a greater volume of participants across the sector. Scaling up research in the field will serve to provide not only a deeper understanding of context and frequency but also allow for an exploration of evaluation processes and perceived levels of success and impediments

within this emerging area. Future areas to be examined will include how a practitioner's level of training, age, or years of practice, as well as gender and location, might influence utilization of digital tools and how the demographic and diagnosis background of clients might inform how and when such tools are used.

Critically, the findings of this pilot study indicate a need for educational support and frameworks for practitioners to capitalize fully on the technological and digital literacy changes in society. This knowledge represents first steps in transitioning face-to-face therapy into the digital age, thereby following the transformation of many other practices and industries. Despite this, and the new possibilities for digital tools to enhance aspects of treatment, however, it is still evident that within face-to-face care the traditional approaches and techniques remain central and integral to practice.

IMPLICATIONS FOR THEORY, POLICY, AND APPLICATION

Although online mental health, or e-mental health, has dominated research into mental health care and digital technologies, a need is increasing for a separate body of work that focuses exclusively on technological use within face-to-face therapies. This pilot study serves to identify numerous emerging practices in the sector and therein a series of key areas that researchers can build upon and explore further. Through identifying unique practices, expectations, and key issues, a foundation for future research priorities and dialogue has been established. Furthermore, in this study representing one of the first to document the changes and perspectives relating to contemporary face-to-face care in this context, our findings contribute to industry discussions and policy development relating to relevant areas in therapeutic practice, including in relation to privacy and social media.

Alongside this, the typology of practice constructed from this study, drawn from the small sample of practitioners, represents a practical starting point through which professional therapists can identify and explore the possible use of digital tools for clients within face-to-face care. Resources such as this typology serve to fill a current void in practitioner education. Moreover, such research can help make a case for governments, private insurance companies, and other funders of client therapy to rethink the components of professional therapy for the benefit of technology-savvy clients and practitioners. Significantly, the typology will be of benefit not only for practitioners in an Australian context, but across many countries where mobile usage is booming and digital literacy is increasing.

ENDNOTES

1. A mental illness is regarded as a health problem that can affect how a person feels, thinks, behaves, and interacts with people (Department of Health, 2019). The term mental disorder is used interchangeably to describe these types of health problems, and diagnosis occurs according to standardized criteria. Most mental illnesses can be treated effectively; however, some people experience reoccurrence throughout their lives.
2. Chillout music is a musical genre defined by soothing rhythms and mid-tempo beats. The term *chill* derives from street language meaning "relax," and the genre emerged in the early to mid-1990s in "chill

rooms” at nightclubs. In such rooms, mellow music was played for party goers as a way to unwind, away from more frenetic and fast-paced music played by regular club DJs (Chill Music, 2019).

3. An overview of the Smiling Mind meditation programs and links to resources are available at www.smilingmind.com.au
4. Full details of the Beyond Blue organization and its initiatives are outlined at www.beyondblue.org.au
5. Further information about headspace services is available at www.headspace.org.au
6. The Australian National University initiative can be accessed at www.moodgym.com.au and the Frequently Asked Questions section provides a concise summary of the program.

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