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Recommendations from the American Psychological Association's Mental Health Technologies Advisory Committee to Advance Psychological Practice and Research

Overview

The field of mental health technologies poses both exciting opportunities and complex challenges for the practice of psychology. This position paper focuses on the necessity for the psychology field to adapt and develop standards for the effective and responsible use of these technologies. We explore the evolving roles of psychologists in digital health, their pivotal contribution to shaping the responsible development of these technologies, and recommended strategic initiatives for the APA in this domain.

Our analysis focuses on three key areas:

1. The development of robust practice standards to ensure responsible use.
2. The intricate challenges in establishing a comprehensive evidence base for emerging technologies.
3. The critical role of training and education in equipping psychologists with the necessary skills.

We also look to address policy and legislative gaps and advocate for interdisciplinary collaboration to bridge the ethical and evidence-based practice gap. This collaborative approach —across both the APA Divisions and with other organizations—fosters continuous adaptation to technological advancements, ultimately ensuring the responsible and effective use of mental health technologies within both professional and public sectors.

Why now?

The field of psychology is experiencing a transformative shift with the integration of mental health technologies. This changing "fourth wave" of therapy comes at a time when demand for therapeutic services vastly outstrips our ability to train new therapists—and the pace of technology innovation seems to get exponentially faster. As the demand for telepsychology and mental health technology services continues to rise, we must adapt and develop standards and regulations to ensure the responsible and effective use of these tools—both among psychologists and consumers. This paper will address key areas of concern and provide recommendations for psychologists to navigate this evolving landscape.

The increasing use of mental health technologies is also a prime opportunity for APA to not only be thought leaders but to drive what the relationship between mental health and technology will be for the future. As the leading scientific and professional organization representing psychology in the United States, being strategic in shaping the development of mental health technology aligns with APA's mission of being an authoritative voice for psychology, preparing the profession of psychology for the future, and leveraging psychology to make a positive impact.

What is Mental Health Technology?

As with any new endeavor, it is necessary first to define our terms. When discussing "mental health technology," we refer to digital technology-based tools designed, intended, and/or used to address mental and behavioral health.

Expanding the definition further, we believe that to qualify as mental health technology, we must look at both the tools themselves and their intended purpose.

More specifically: Mental health technology should, of course, encompass technology-based tools. These tools can refer to a broad range of digital products that may utilize:

> Hardware, such as computers, tablets, smartphones (including onboard sensors), wearable devices (e.g., smartwatches, fitness trackers), extended reality (XR) headsets, electroencephalogram (EEG) headbands, and robots. Or,
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> Software, such as mobile apps, websites, Internet-based tools, social media, electronic health records (EHRs), digital therapeutics, messaging apps, wearable software, VR/augmented reality programs, artificial intelligence (AI), and machine learning (ML)-based programs and algorithms, chatbots, telehealth apps, serious games, and neuropsychological assessment programs.

And we should also consider the intention of those tools. To be regarded as mental health technology, the tool must be based on psychological theory (e.g., informational, cognitive,

behavioral, emotional, neuropsychiatric, social, physiological) and designed, intended, and/or used to address or improve mental health by enabling at least one of the following:

- Understanding, support, assessing, education, treatment seeking, or prevention (e.g., symptoms, disease onset, deterioration).
- Assessment, detection, identification, diagnosis, monitoring, or tracking.
- Intervention, treatment, or management using psychologically-founded mechanisms (e.g., informational, cognitive, behavioral, emotional, neuropsychiatric, social, physiological).

Finally, rather than focusing on the narrow distinction between mental and behavioral health, we take a broad view. Targets for thinking about and discussing mental health technology can include the full spectrum of psychological study, for example—well-being, symptoms, functioning, behavior change, recovery, and disorders.

Areas of need for intervention

An expanded view of the role of psychologists in digital health

Thousands of psychologists are already working in digital health—and many in other positions outside the traditional academic and clinical settings historically focused on by the American Psychological Association (APA).

Certainly, psychologists in digital health work in many of the traditional clinical and academic roles recreated in the digital environment—for example, direct care via telehealth and clinical operations. However, many psychologists work outside these conventional roles in content development, product management and evaluation, user experience, design, marketing, AI/machine learning, executive positions, and company founders.

With a broader range of roles that psychologists now perform, we recommend the APA expand its scope of content and programs to retain these psychologists' participation in the organization. The APA must meet their needs to maintain the engagement and expertise these psychologists can bring to the organization—and the field.

Further, as we consider how best to incorporate technology into the practice of psychology, we recommend that the APA collaborate with experts from diverse fields, including human factors/ergonomics psychologists, information technology professionals, and artificial intelligence specialists. This interdisciplinary approach will help ensure more comprehensive standards for mental health technology service delivery.

The Mental Health Technology Advisory Committee proposes that APA consider the following recommendations to address related to mental health technology:

Updating Practice Standards

Despite APA's Guidelines for the Practice of Telepsychology (2013), which broadly addresses the provision of psychological services through telecommunication technologies, further attention is needed to develop and refine the scope of practice. Not only does the delivery of psychological services receive the most media attention (perhaps particularly on social media), but it is also the area that most directly connects to the 'traditional' practice and training of psychologists. Additionally, we encourage APA to establish a more frequent and systematic process for updating practice standards that can quickly adapt to the rapid rate at which mental health technologies can change, as well as policies and legislation related to their use.

Practice standards may involve recommendations regarding how and when psychologists should be concerned with mental health technology tools, such as:

1. The front-end creation of digital tools that adhere to ethical standards.
2. Dissemination, marketing, or sale of digital tools to potential payers, providers, and clients.
3. Training and educational initiatives to ensure proper use of digital tools.
4. Examining how digital tools are implemented in practice and used in the real world and assessing and solving barriers to implementation and use.
5. Evaluating the effectiveness of digital tools in reducing costs, improving access to care, and producing healthy and equitable outcomes for clients.
6. The continuous evaluation and improvement of digital tools to ensure safety, treatment fidelity/accuracy/clinical validity/quality, and cultural responsiveness.

In developing these standards of practice, we again recommended APA not only rely on its members with more traditional training and expertise in psychological service delivery (e.g., clinical, counseling, school psychologists) but that they also involve other disciplines within psychology (e.g., human factors/ergonomic psychologists) as well as partner with non-psychology professionals who bring expertise in information technology, human-computer interaction, intelligent systems, and artificial intelligence. Being at the forefront of mental health technology service delivery will require a collaborative and transparent network of professionals within and outside APA and a reciprocal relationship between these professionals and the consumers of digital services.

Evidence Base for Mental Health Technology Solutions

"Mental health technology" has a similar challenge as "digital health," broadly—the need for methodologically rigorous proof-of-concept studies. Most digital health studies focusing on adults have included small proof-of-concept pre/post designs or case studies examining usability and feasibility. Additionally, adequately powered randomized controlled trials testing effectiveness is lacking.

APA should work to develop recommendations for research methods and levels of evidence that bridge the needs of clinical use with the benefits of academic rigor. Further, early phase studies should continue to examine the feasibility and acceptability of mental health technology interventions and adapt study protocols and procedures for diverse populations, such as older adults who may present unique cognitive, social, and behavioral challenges compared to their younger counterparts. Finally, studies should also examine engagement/adherence both in feasibility and effectiveness (i.e., in real-world conditions) —as many people of all ages can easily discontinue the use of technology before receiving intervention effects.

Policy and Legislation

Certainly, with the advent of new technologies in any field also comes regulations that provide guardrails regarding how they should be used. With the application and integration of digital health within the academic and clinical practices of psychology, several areas should be considered for new and updated legislation:

Patient protection

The current HIPAA regulations, enacted nearly 30 years ago, do not adequately cover protected health information (PHI) collected by companies today that do not meet the definition of covered entities yet still provide clinical services. The APA should work to develop more specific guidelines for its members around the ethical use and protection of PHI.

The APA should also engage with federal agencies working in this area, like the U.S. Food and Drug Administration, in their efforts to ensure that mental health technologies are safe, effective and secure before they are used with patients.

APA Ethical Guidelines Considerations *(e.g., inadvertent disclosures, data sharing)*

Current ethical guidelines and training in psychology must adapt to the evolving landscape of mental health care delivery. The rapid adoption of telehealth and the integration of digital applications in treatment settings means that psychologists must navigate new challenges related to privacy, confidentiality, informed consent, and boundaries in the digital realm with little guidance. The APA's ethical recommendations and training should be updated to explicitly include novel mental health technology modalities, such as telehealth and mobile applications in treatment.

Clinician protection:

As with many new advances, the potential for job loss is real. APA should take the necessary steps to ensure that psychologists are not getting swapped out for lesser credentialed providers who, through the use of technology, are deemed to be a cheaper alternative. For example, AI models today can easily allow anyone to interpret and draft entire psychological assessment reports in seconds from just the raw scores.

As in many fields, the concern over training of artificial intelligence (AI) models on the work of those it is intended to replace is just as relevant in psychology. The APA should work to ensure that these tools are not developed without clinicians' oversight - and that they also serve to aid clinicians in the goal of expanding access and quality of care.

And while we understand that these technologies could potentially provide a more affordable and accessible way to receive mental health care, they also raise concerns about the quality of care that clients would receive. Additionally, clients may be less likely to disclose sensitive information or gain the empathetic and targeted treatment that results from years of training and education, limiting the effectiveness of the treatment.

APA should take the necessary steps to ensure that psychologists are allowed to practice at the top of their licenses, to reinforce the value that psychological training and expertise bring, and that the standards of practice are protected from encroachment posed by technology as a substitute for training.

Reimbursement and Prescribing

Finally, many of the issues APA is currently tackling in mental health parity and increased reimbursement rates are related to digital health as well. Currently, reimbursement rates for mental health technology services can be lower than those for traditional in-person therapy, making it less sustainable to provide a comparable service. This is on top of the lower overall funding that mental health services receive, compared to physical health services. APA should continue to work to close this gap by advocating for mental health parity laws and regulations - and include the impact on digital health as well.

APA is also already working with industry to develop prescribing privileges for psychologists for digital therapeutics. Digital therapeutics are software-based interventions that are designed to treat mental conditions. Prescribing privileges would allow psychologists to prescribe digital therapeutics to their patients, which could help to improve access to mental health care and reduce the cost of care. APA should continue to work with industry to develop a framework for prescribing digital therapeutics and to ensure that these interventions are safe and effective - and that psychologists' scope of practice can expand to meet these innovations.

Ensuring a Focus on Equity and Access

An important focus in APA's strategic plan is to utilize psychology to make a positive impact on critical societal issues. This includes employing psychology to improve population health, increase access to services, and reduce disparities.

As we engage in the work with APA in the area of mental health technology, we will ensure that we maintain a lens that focuses on how people with marginalized identities are included in product development. We will identify and endorse policies for mental health technologies to be accessible to people with disabilities and to people who live in regions where access to wireless and/or high-speed internet may be impacted. As a committee, we will work to ensure that mental health technology does not further perpetuate existing racial/ethnic, geographic, and socioeconomic disparities.

Training and Education

From informal discussions with recent graduates and groups like APAGS, it is clear that mental health technology tools are not being discussed in training programs at rates commensurate with their use in practice. Given the prevalence of mental health technologies, we strongly advise APA and other mental health professional organizations to recognize the development of technological skills as a core competency in pre-and post-doctoral training programs. In practice-oriented subdisciplines, this may include:

1. Specific coursework or didactic seminars on the history, science, and ethics of mental health technologies for intervention and assessment.

2. Supervised direct care experiences providing mental health technology services (e.g., through internal or external practicum placements, pre-doctoral internships, and post-doctoral fellowship programs).

3. Supervision-of-supervision, wherein more advanced trainees supervise (under the guidance of a licensed psychologist) novice trainees who are learning to provide mental health technology services.

4. Inclusion of content related to mental health technologies on national and state-level licensure examinations.

Whether practice-oriented or not, psychology training programs should consider offering graduate and/or research assistantships that expose trainees to technology development in mental health spaces (e.g., creating content that is both evidence-based and feasibly translated

to virtual platforms, conducting usability testing, and understanding commercialization policies and procedures). Further, training programs may benefit from encouraging extracurricular activities such as student or faculty committees focused on gathering, sharing, and/or advancing information about mental health technology tools and their use.

Again, due to the pace at which technologies and related policies evolve, training and education must not be limited to training programs, development and enforcement of training and educational standards for clinical supervisors, practitioners, researchers, instructors, and other psychology professionals engaging with mental health technologies are also needed. This may involve establishing recommendations for continuing education credit hours per license renewal period, prioritizing the dissemination and revision of best practice guidelines, increasing convention programming or offering free/low-cost webinars focused on mental health technology tools, and encouraging APA journals to publish more rigorous, culturally informed, and open-access research on the effectiveness of these tools.

Finally, we encourage APA and its constituents to increase efforts to educate and advocate for the appropriate use of mental health technology technologies in the public sector. As the premier authority for psychology in the US, APA has an opportunity to play a more significant role in combating misconceptions about the use of mental health technology tools and helping the public engage more insightfully with these technologies. We encourage APA to share this type of information in creative ways that best match how the average person consumes it. Among other initiatives, APA could increase its presence on popular social media platforms, make psychological science about digital tools more accessible and digestible to a general audience, and develop outreach strategies, particularly in communities that may be more hesitant to embrace technology or less familiar with how to use or benefit from technology.

Future Considerations

The MHTAC is hopeful that together, with internal APA stakeholders and APA membership, we can address the needs outlined above. To that end, we are proposing the following:

Collaboration Across Divisions, Organizations

We welcome active participation and engagement from all APA Divisions. We hope that the MHTAC can be a resource and solicit every part of the APA and its divisions as to their needs, questions, and challenges to ensure inclusivity and representation. We also hope to learn from the work of other organizations in the larger health technology space, like the American Medical Association and Digital Therapeutics Alliance.

Mental Health Technology Summit

We know that we need to expand the ideas and discussion beyond what we can do in our small group, and we are planning a summit on March 8th, 2024, to bring together key stakeholders to facilitate discussions and cooperation with a broad audience to advance digital health in psychology.

Ongoing Education

Finally, we plan on continuing to share and disseminate content and education on topics in mental health technology within psychology, highlighting the relevance of tech-enabled care and innovations to the work of the psychological community.

Conclusion

This is the first step on a journey to help bring the practice of psychotherapy into the 21st century. The use of psychology within digital health presents both opportunities and challenges. As the demand for telepsychology and mental health technology services soars, psychologists must adapt, innovate, and collaborate to ensure responsible, ethical, and appropriately delivered practice. By embracing interdisciplinary approaches, updating practice standards, expanding roles, advancing the evidence base, addressing policy gaps, and prioritizing training and education, the American Psychological Association can lead the way in harnessing technology to improve mental health.

While the members of the APA's Mental Health Technology Advisory Committee bring our many years of direct expertise working on these issues, we welcome the input of our colleagues of all

disciplines who have also given this much thought through their years of experience, as well as those new to the field looking to solve the challenges they see daily. Together, we can bridge the gap between psychological expertise and digital innovation, providing accessible, high-quality care to those who need it most.

Disclaimer: The information contained in this position paper is not official American Psychological Association (APA) policy.