

Mental Health Considerations for Exercise Practitioners Delivering Telehealth Services

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ABSTRACT

In Australia, exercise practitioners (i.e., clinical professionals specializing in exercise assessment and delivery) are increasingly recognized as core mental health team members. In response to the COVID-19 pandemic, exercise practitioners, like other mental health professions, have had to adapt methods of clinical service delivery to ensure *social distancing* and reduce risk of community transmission. As such, telehealth interventions have rapidly replaced most face-to-face services. To date, evidence surrounding the application of telehealth exercise interventions for people living with mental illness is scarce, and currently there is no consensus or recommendations on how exercise practitioners can provide telehealth services for this population. As such, the aim of this article is to draw on existing research and expert opinion to provide practical and service-based guidance for exercise practitioners delivering telehealth services to people with mental illnesses. Specifically, we explore the potential benefits of telehealth exercise interventions, the various challenges and considerations of telehealth exercise among those with mental illness, and some practical solutions to guide exercise practitioners in delivering telehealth services. *Journal of Clinical Exercise Physiology*. 2021;10(1):20–28.

Keywords: COVID-19, physical activity, mental illness, exercise professional

INTRODUCTION

The novel coronavirus disease 2019 (COVID-19) pandemic has placed increasing stress and uncertainty on individuals, organizations, communities, and nations. The rapid development of this global crisis forced individuals to quickly adapt. In Australia, various strategies were implemented to minimize the spread of the virus, such as new *social distancing* rules (e.g., 1.5 meter physical distancing and restricted number of persons within venues and public spaces) and *lock-downs* (e.g., business closures and curfews). Combined, these changes have limited face-to-face contact and subsequently impacted daily activities. The resultant social

isolation and changes to health care practices, combined with the threat of contracting SARS-CoV-2 and leading to COVID-19 disease, has had indirect impacts on individuals' physical and mental health. Psychological consequences, such as heightened stress, loneliness, anxiety, and depression, are increasingly common in the general population, and there are concerns for exacerbation of symptoms in those living with mental illness (1–3). Additionally, for those in the community living with chronic and complex health conditions (e.g., metabolic, cardiovascular, or musculoskeletal diseases), access to necessary services are compromised, placing these individuals at increased risk of poor health

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outcomes. The combination of elevated psychological distress and reduced access to healthcare services has practical implications for individuals living with mental illness who are already at increased risk of physical health complications and display higher rates of chronic health conditions. As such, there has been an increased demand on existing medical and mental telehealth services (3) and a need for evidence-based clinical services that target both physical and mental wellbeing to adapt new *socially distant* methods of service delivery.

Physical activity, defined as any bodily movement produced by skeletal muscles that results in energy expenditure which includes the subset of structured exercise with the goal of improving fitness (4), is indicated as first-line therapy in the management of mental health symptoms in the general population and is a key adjunctive treatment approach to managing symptoms associated with mental illness, including psychosis spectrum disorders, major depressive disorder, and post-traumatic stress disorder (5,6). Physical activity is also well-established in the prevention, treatment, and management of a range of chronic health conditions, and regular activity is associated with better long-term prognosis and increased life-expectancy (7). COVID-19 and associated mitigation strategies such as gym restrictions/closures, cancellation of sporting competitions, and time limits for outdoor activities, has significantly impacted an individual's ability to engage in physical activity and achieve recommended physical activity guidelines. For instance, recent data from a survey of 383 individuals in *lockdown*, found greater sedentary behavior than prior to *lockdown* (i.e., increase of 75 min/day), along with a modest to negligible increased time spent in walking and moderate physical activity (i.e., ~10 mins/day). Importantly, the increase in sedentary behavior was associated with decreased physical health ($P = 0.002$) and poorer mental health outcomes ($P = 0.003$), while higher walking and moderate physical activity was associated with improved physical health ($P = 0.002$) (8). As such, the need for physical activity promotion and incorporation of exercise practitioners (i.e., clinical professionals who specialize in exercise assessment and delivery) is particularly relevant. In Australia, exercise practitioners such as accredited exercise physiologists and physiotherapists are best placed to deliver evidence-based exercise interventions to clinical populations, including those with mental illness (9). Such professionals qualify for provider status through Medicare Australia, the Department of Veterans' Affairs, and most private health insurers and compensation schemes. Many have implemented new or increased provision of virtual services during the pandemic, and thereby increased access for those with chronic health conditions and functional disabilities (10).

TELEHEALTH SERVICES

To maintain service delivery during the pandemic, exercise practitioners, like other health professionals, have

needed to adapt to alternative methods of health care delivery such as telehealth. Telehealth is defined as use of telecommunication techniques for the purpose of providing telemedicine, medical education, and health education remotely (11). In response to COVID-19, telehealth practices have in many cases replaced face-to-face clinical exercise services and are currently playing a key role in ensuring the needs of mental health service users are being met (3,12).

Historically, telehealth services have allowed exercise practitioners to remotely deliver assessment, consultation, and exercise interventions to individuals who lacked access to necessary services (e.g., those living in rural and remote locations). Research prior to COVID-19 found telehealth exercise-based services are feasible, acceptable (13), and effective in improving health behaviors (14) and improving outcomes across a range of clinical populations. This includes those living with a variety of chronic and complex conditions including coronary heart disease (15), pulmonary disease (16), diabetes (17), cardiovascular disease and stroke rehabilitation (2), breast cancer survivors (18), chronic pain (19), and a range of musculoskeletal conditions (20) including knee osteoarthritis (21). One qualitative study of physiotherapists treating knee osteoarthritis revealed that clinicians' expectations of telehealth exceeded initial expectations, and they reported improved health outcomes among those who received telehealth interventions (22). Another study by James et al. found both face-to-face and telephone physical activity counseling delivered by exercise practitioners were equally effective in improving self-reported physical activity levels among sedentary individuals accessing primary care services (23). Such evidence is crucial in informing how exercise practitioners adopt telehealth practices when supporting individuals who do not otherwise have access to face-to-face services, irrespective of the pandemic (e.g., individuals socially isolated by living remotely).

Federal and state governments in Australia have responded to the health needs of the public during COVID-19 by investing in increased telehealth services covered under the public health Medicare scheme and increasing the capacity of free mental health telephone support providers (12). Further, access to psychological and other medical services under the Medicare Benefits Schedule has been modified to allow new item numbers for telehealth appointments. This investment was justified by the psychosocial impacts of COVID-19 on the public, difficulties in accessing necessary care, and resultant increased demand on existing services. For example, one Australian digital mental health service reported an 89% increase in website visits and a 90% increase in telephone calls to the clinic in the early COVID-19 period compared preCOVID-19 (3). In addition, there is substantial evidence to support telehealth application in treating people with a broad range of mental disorders (24) including psychosis (25), depression (26), anxiety disorders (27),

TABLE 1. Benefits of availability and delivery of telehealth services.

Benefits to the consumer (30–32)	
Reduces transport burden and/or associated costs and risks (e.g., risk of infection or injury if poor mobility).	
Allows those who are <i>house-bound</i> due to physical or mental health (e.g., social anxiety, paranoia, or depression) to access services.	
Allows individuals who live in rural or remote communities to receive services, including specialist services which may be not available in local communities.	
Supporting individuals to exercise in their homes using available equipment may prove to be an effective way of ensuring long-term adherence.	
Benefits to the exercise practitioner (22,30,31)	
Increases service capacity – reduces cost and time associated with travel through automated online options. This potentially would allow for increased frequency of contact with consumers.	
Exercise practitioners can deliver services from most locations, thereby removing some of the geographical challenges and reducing inequitable access experienced in rural Australia.	
Video conference applications allow supervision of exercises in the consumers' home, allowing for prescription of sustainable and practical exercise programming. Other digital health applications software allows for asynchronous delivery of exercise services, which facilitates flexibility in the timing of exercise session delivery. This flexibility can enhance compliance in exercise sessions.	
Telehealth enables a greater focus on communication, thus facilitating more personal conversations, shifting consumer expectation away from guided exercise and toward self-management and independence.	

and post-traumatic stress disorder (28), further supporting the justification for this investment.

To our knowledge, there is a paucity of research specifically assessing the application of telehealth exercise services for individuals living with mental illness and the application of telehealth exercise services in mental health treatment are less clear. Anecdotally, the methodological approaches to telehealth by exercise practitioners throughout the pandemic has been inconsistent across services and presents various challenges. Evidence suggests various barriers impacting the uptake of telehealth interventions also existed prior to the COVID-19 pandemic, with evidence of slow and inconsistent adoption of such services across rural Australian settings (29). Currently there is limited evidence and no consensus or recommendations on how exercise practitioners can provide telehealth services for those living with mental illness. As such, the aim of this article is to draw on existing research and expert opinion to provide practical and service-based guidance for exercise practitioners delivering telehealth services to people with mental illnesses.

Benefits of Telehealth Exercise Services for Individuals Living With Mental Illness

In response to COVID-19, telehealth has become the preferred, and in some cases the only, method of subacute mental health service delivery. The emergence of telehealth as a dominant method of service delivery has enabled ongoing care while social restriction rules are in place. Table 1 provides a summary of some of the potential benefits of telehealth exercise services for people living with mental illness.

Challenges and Considerations

Despite the benefits to consumers and service providers, telehealth-delivered exercise is not without its limitations. Transitioning to telehealth services for exercise practitioners may present various challenges, potentially impacting the quality of service delivery. One of the greatest challenges identified is the willingness and acceptance of clinicians to deliver telehealth (33). Reasons for such resistance by clinicians range from perceived disruptiveness, complexity, and need to learn new methods of service delivery, much of which attributed to a lack of knowledge surrounding telehealth (34). Acceptance of telehealth relies on clinicians to perceive this service delivery model as beneficial to their patients, safe, and normal (35). Highlighting such challenges enables for solution-focused approaches to support developments in how exercise practitioners and services approach telehealth, thus enhancing clinical exercise services in situations where face-to-face communication is not possible. Table 2 describes additional challenges that may be experienced during telehealth exercise and provides strategies to support exercise delivery.

Assessment of Telehealth Suitability

Various guidelines have been documented to determine the suitability of using telehealth in clinical practice. Individual health services or clinics may have their own guidelines, however some industry level examples include the Royal Australasian College of Physicians Telehealth Guidelines and Practical Tips (39) and the Agency for Clinical Innovation Telehealth in practice guide (40). Although not directly applied to exercise practitioners, key themes can be drawn and integrated to ensure interdisciplinary consistency and

TABLE 2. Overview of potential considerations and supportive strategies for exercise practitioners' telehealth service delivery for those living with mental illness.

Consumer engagement, interaction, and service delivery		
Considerations	Who	Strategies
Inability to perform various objective physical health risk assessment, screening, and monitoring (e.g., metabolic monitoring, blood pressure, anthropometry). This may impact collection of data for clinical and/or research purposes.	Practitioner	- Online screening and administration of assessment forms including use of validated subjective questionnaires such as Adult Pre-Exercise Screening (36) to assess suitability for exercise or the Simple Physical Activity Questionnaire (37) to measure self-reported physical activity levels - Hands-off assessments of physical capacity, such as functional or strength assessments (e.g., body-weight repetition maximal tests, 30 second sit to stands or maximal push-up tests) - Linkage with local health providers (e.g., GPs, practice nurses or pharmacists) to assist monitoring of risks - Facilitate access to home monitoring tools (e.g., scales or pedometers)
Inability to integrate visual feedback (e.g., exercise technique or body language) in absence of camera	Practitioner and consumer	- Assessment of telehealth suitability and practitioner confidence in communication. Verbal consultation most appropriate opposed to exercise instruction - Sending video demonstrations prior - Utilize exercise prescription apps - Utilizing consumer-facing exercise prescription applications and platforms
Compassion fatigue/mental health crisis	Practitioner	- Remote debriefing processes with colleagues and clinical supervision, employee assistance programs, peers, or other - Self-care
Difficulties with mental health monitoring of consumers with mental illness (e.g., misinterpretation, responding to positive psychotic symptoms, medication compliance)	Consumer and practitioner	- Assessment of telehealth suitability - Coordinated health care including handovers and ongoing communication with mental health consumers and other health care workers - Safety planning in the event of crisis
Avoidance of telehealth services because of personal circumstances, concerns around data security, or symptoms associated with mental illness (e.g., paranoia, anxiety, low self-esteem)	Consumer	- Assessment of telehealth suitability - Provide education on confidentiality and privacy - Ensure consumer feels comfortable - Recruit support from family and carers - Suggest alternative telehealth methods that they may be more comfortable with (e.g., turning cameras off, phone-based consultations, email, or texting).
Mental or physical health crisis	Consumer	- Assessment of telehealth suitability - Safety planning in the event of crisis (e.g., ensuring the exercise practitioner has information including emergency contact information and address of consumer) (38) - Be aware of appropriate referral pathways and be familiar with threshold for referral
Lack of exercise equipment	Consumer	- Body weight exercise alternatives and utilizing household goods to supplement equipment (e.g., backpacks or shopping bags with books inside) - Use of exercise prescription apps, video demonstration, or other technology - Low-cost equipment that could be delivered or dropped off (e.g., resistance bands and yoga mats)
Cognitive impairments or reduced capacity (e.g., memory or attention deficits)	Consumer	- Assessment of telehealth suitability - Recruit support from family and carers - Provide supplementary instructions or support materials in written or video formats

TABLE 2. Continued.

Consumer engagement, interaction, and service delivery		
Considerations	Who	Strategies
Accommodation or housing considerations (e.g., transient population, unsafe home environment, shared housing creating privacy issues)	Consumer	- Assessment of telehealth suitability including living situation - Determine most reliable telehealth platform for that consumer
Compliance with services (e.g., responding to phone calls, remembering appointments)	Consumer	- Needs supported health care - Tools as per <i>face-to-face</i> services (e.g., automated reminders, online exercise tracking)
Social isolation	Consumer	- Patient-centered and progressive programming with plan to support independence for long-term physical activity maintenance - Online community and socialization such as online group exercise classes or closed, monitored and admin-regulated social media platforms
Technology and/or logistics		
Smart phone or computer with access to stable internet connection, thus avoiding issues with video freezing, audio cutting out/fading, etc	Practitioner and consumer	- Have appropriate troubleshooting plans and procedures in place, such as back-up device, secondary internet connection/network - Assessment of telehealth suitability - Explore options for stable internet access - Providing consumers with training on use of telehealth technologies
Digital literacy or knowledge level in telehealth delivery	Practitioner	- Governing body and health department policies provide education to practitioner - Inclusion of telehealth education in undergraduate training - Educational material provided to consumer on how to use telehealth platforms - Assessment of telehealth suitability
Telehealth infrastructure	Practitioner	Updating relevant policies to include telehealth services
Policy and community		
Lack of local service provider: potential to reduce local upskilling or take work away from local providers		Encourage workforce capacity building with experts in other communities encouraged to engage with local providers and take a multidisciplinary or team management approach in order to upskill local providers

GP = general practitioner; Practitioner = accredited exercise physiologist, accredited exercise scientist, physiotherapist, or other qualified exercise professional

enhance access without compromising the quality and standards of care provided.

Key themes include the following:

- Ensuring the environment in which telehealth occurs is appropriate (i.e., allows for confidentiality and clear communication),
- Considering the needs of the telehealth recipient (e.g., ability to communicate via telehealth and level of cognition),
- Confidence of the clinician in providing telehealth (e.g., understanding of technology and telehealth literacy), and
- Availability of equipment (e.g., cameras, internet, and microphone) to ensure effective communication.

Similar themes have been discussed in a recent study by Middleton et al., who describe key steps and considerations for both the exercise practitioner and consumer when implementing new telehealth programs or for transitioning face-to-face services to telehealth delivery during periods of social distancing and lockdown (38). Such considerations include (a) selecting the appropriate telehealth platform, (b) developing a documentation system to effectively capture clinical notes and outcome measures, (c) identifying and obtaining necessary resources (personnel and supplies, e.g., family carer support or exercise equipment), (d) evaluating the participant's functional status prior to and following the program, and (e) program delivery, which considers safe

equipment set up, scheduled timing of sessions, monitoring of intensity, and reporting on the session.

When considering the implementation of telehealth services in mental illness and more broadly, it is critical to pay attention to the variations and nuances in communicating via a digital platform. For example, delays in conversation because of network connection may result in a fragmented discussion, technical failure may be disheartening for the consumer, and/or the inability read and respond to nonverbal feedback may be limited. Such challenges may create additional barriers to effective consultations for people living with mental illness who exhibit symptom-specific communication barriers (e.g., cognitive deficits) (41) or acute psychotic symptoms (42). While these situations are not totally avoidable when communicating via digital technology, addressing and openly discussing these potential scenarios from the outset may minimize their impact (e.g., have a backup plan if connection or video does not work). Further, recent evidence during the COVID-19 pandemic suggests telehealth interventions are equally feasible and acceptable among those living with severe mental illness compared to the general population (43). Exercise practitioners should therefore make purposeful attempts to build rapport with consumers via telehealth to strengthen therapeutic relationships and maximize engagement. Ensuring communication and instruction is clear and concise and ensuring sessions are shorter in duration may further support improved telehealth engagement.

Addressing Challenges With Telehealth Physical Health Risk Assessment, Screening and Monitoring

Screening and Safety Precautions

While it is widely acknowledged that the benefits of participating in physical activity vastly outweigh the risks, there is the potential for exercise to result in adverse physical events, especially in those with undiagnosed or poorly managed chronic conditions. To maximize patient safety and avoid adverse events, effective assessment and screening for potential risks prior to exercise by the exercise practitioner is needed. For instance, individuals with underlying physical health complications (e.g., diabetes, cardiovascular disease, musculoskeletal injuries or pain) should be screened for their limitations and potential flags prior to undertaking exercise programs. This will allow exercise interventions to be tailored to individual needs, thus minimizing risks and avoiding complications. The recently revised Adult Pre-Exercise Screening (36) is one example of a tool commonly used by Australian exercise professionals to guide referral, assessment, and prescription of exercise without adding further cost and burden on medical systems. The screening process incorporates preparticipation screening questions, medical history collection, and objective assessments of exercise capacity. Additionally, education around confidentiality and privacy when using telehealth platforms should be discussed from the outset. For example, instruction regarding where the location of the telehealth session is

being conducted for both the exercise practitioner and consumer (e.g., use of headphones, in private rooms and not in a public or shared living space). This will ensure the consumer feels safe and comfortable with disclosing clinically relevant information. With appropriate planning and consideration, the vast majority of the aforementioned screening processes can be performed via remote methodologies when cognitive function and medical recall of consumers is sufficient (see telehealth suitability), and access to appropriate at-home assessment devices is available to the consumer as needed.

The increased availability of wearable activity and health tracking devices (e.g., watches with pedometers and heart rate monitoring) also presents an avenue for future innovations in screening and monitoring of physical activity levels and cardiorespiratory fitness (30,44). However, the benefits and risks must be considered by the practitioner especially with regards to the costs, reliability, and validity of commercially available devices. In the absence of such equipment, technology or concerns around consumer cognitive function, engagement with multidisciplinary and/or medical team is crucial to screen and monitor consumers health and safety.

With respect to screening and assessment of potential mental health risks, it is outside the scope of practice for exercise practitioners to assess, identify, diagnose, or label mental health symptoms based off individual presentation. Instead, exercise professionals have a responsibility to undertake sufficient education and training to have a basic understanding of symptoms associated with mental illness, how to best engage with individuals when experiencing such symptoms, how to identify when symptoms become acute, and then how to implement the predetermined safety plan, including referral to appropriate medical professionals. Gaining sufficient clinical handover from treating mental health team members and/or medical professionals on potential mental health risks or *red flags* will improve consumer care and engagement and minimize risk. In addition to regular professional communication as per best-practice, additional community-based strategies should be considered and implemented by the exercise practitioner. Ensuring integrative care with the mental health team, the local general practitioner practice, and/or outpatient wellness clinics for physical health monitoring including metabolic monitoring is essential (45).

Monitoring and Assessment

With limited research surrounding the application of telehealth-delivered exercise interventions among individuals living with mental illness, understanding and applying practical strategies from studies of other cohorts where telehealth is more established will help inform the exercise practitioner when consulting with those living with mental illness. For instance, monitoring and assessing physical capacity (including functional capacity, flexibility, cardiorespiratory fitness, anthropometric measures, and muscular strength) requires modification when adapting to telehealth. With the correct technology, telehealth can be advantageous and support with the delivery of such assessments. For example, some video conferencing software have the capacity to

measure range of motion, and screen sharing functions can facilitate resource sharing and improved education (46).

Across diverse cohorts the utility of subjective and objective assessment measures conducted remotely has been explored with measures of cardiometabolic health (e.g., heart rate monitors, automated blood pressure, scales), pulmonary function (e.g., pulse oximetry, spirometry), neurological and musculoskeletal function (e.g., balance, joint range of motion), cardiorespiratory fitness (e.g., 3-minute step test), and functional capacity (e.g., timed up and go or 6-minute walk test) demonstrating reliability and validity (13,47). Additionally, subjective questionnaires have been widely utilized across various populations to assess a variety of patient-rated outcomes including physical activity levels, quality of life, and pain. Although the use of subjective questionnaires has limitations in self-report (48), accuracy of self-report may be enhanced with the exercise practitioner guiding consumers through the tools.

Mental Health Monitoring and Crisis

As mentioned, the COVID-19 pandemic and associated restrictions has demonstrated detrimental effects on mental health and wellbeing. As such, exercise practitioners delivering telehealth interventions to people living with mental illness (whether it be as a primary or secondary diagnosis), may observe changes in mental health presentation, and it is possible that consumers may report a decline in mental health (i.e., increase in psychiatric symptoms). Exercise practitioners must therefore be equipped with the confidence and knowledge to respond to and manage such situations without stepping outside scope of practice.

A variety of approaches to providing mental health support exist, such as Mental Health First Aid's *ALGEE* (49) or the Psychological First Aid's *Look, Listen and Link*. Both approaches ensure individuals who may be supporting people experiencing symptoms are (a) observant of signs of a mental health crisis or changes in an individual's mental state, (b) demonstrate appropriate communication techniques, and (c) aware of appropriate referral pathways and can identify when referral is appropriate.

It is recommended that all exercise practitioners providing telehealth are familiar with such approaches, are skilled in working with mental health populations prior to conducting telehealth, and are familiar with appropriate referral pathways ensure the mental health needs are being met. For example, exercise practitioners should also be aware of the range of Medicare-subsidized mental health-specific services (50) offered and support consumers in liaising with general practitioners to initiate further specialist support if warranted. In addition, exercise practitioners should have access to and feel confident in referring consumers to the

various free crisis support services such as Lifeline (51) or Beyond Blue (52) in Australia.

Deciding When to Refer Back to Mental Health Services

There are a number of *red flags* that may be vocalized or observed during telehealth sessions. Red flags include the following:

- Suicidal ideation or evidence of self-harm
- Indication that they are unable to carry out activities of daily living (e.g., showering, grooming, taking care of dependents)
- Responding to or distressed because of the presence of hallucinations, especially command hallucinations
- Voicing of delusions (above baseline)
- Any acknowledgement of signs of medical noncompliance (e.g., stopped taking or taking self-selected dosage)
- Signs of substance misuse
- Presentation/behavior has significantly changed and they may be acting *out of character*
- Nonengagement with scheduled telehealth services

If red flags are evident, exercise practitioners are recommended to initiate referral or feedback to the appropriate mental health services and/or the referrer/care coordinator (e.g., general practitioner, case manager). At a time of mental health crisis, it is important that exercise practitioners deliver best practice psychological first aid (53). Key aspects of this include clear communication, expressing empathy, acknowledging presenting concerns, ensuring referral to appropriate mental health professional support while engaging the consumer in decisions regarding their care, and/or including sharing of information (e.g., who would the consumer like to be contacted in the event of crisis). It is the responsibility of the exercise practitioner to ensure individual safety and therefore they will be required to disclose any risk of harm to the appropriate medical and/or mental health team.

CONCLUSION

There is accumulating evidence supporting the use of exercise telehealth practices, however evidence in populations with mental illness is lacking. In addition, clinical recommendations surrounding the use of telehealth-based exercise services have not been previously established. Irrespectively, exercise practitioners have adapted to current social restriction regulations by implementing telehealth to deliver clinical exercise interventions among those with mental illness. Acknowledging service-specific challenges and developing strategies to adapt will ensure continuity of care and support improvements in clinical outcomes.

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