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ORIGINAL ARTICLE

The perceptions of mental health clinicians integrating exercise as an adjunct to routine treatment of depression and anxiety

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ABSTRACT: *Individuals with depressive symptoms often experience changes in physical activity and lifestyle factors. Despite the benefits of exercise, mental health clinicians often do not refer for or prescribe exercise as part of traditionally accepted models of care for consumers with depression and anxiety. The aims were to investigate: (i) mental health clinicians' understanding of the relationship between exercise and mental health, (ii) if and how exercise is used by mental health clinicians in treatment for depression and anxiety, and (iii) the barriers to prescription of exercise. A descriptive qualitative method was used, and data were collected via individual semi-structured interviews. Ten mental health clinicians with varying backgrounds participated in this study. The data driven inductive analysis of participants views identified three themes: (i) knowing and not knowing, (ii) consumer comorbidities – the risk and benefit dilemma, and (iii) protecting vulnerable consumers. Enhancing clinicians' knowledge of the beneficial role of exercise in treatment for consumers' experiencing depression and anxiety is an important step. Mental health services can support integration of exercise by implementing policies and training for staff to support exercise prescription, and the role and referral of exercise and physical activity specialists, as part of routine care to improve clinical outcomes for consumers. Additional considerations should be given to fiscal support to access exercise as an adjunct therapy.*

KEY WORDS: *comorbidities, mental health professional, mental illness, mood disorder, physical activity.*

BACKGROUND

Depression is a common mood disorder and has been listed in the top 10 burdens of disease for many years (Vigo *et al*. 2016). Depression commonly co-occurs with anxiety, and indeed over the past few years since the COVID-19 pandemic, the prevalence of depression and anxiety have increased remarkably (Bueno-Notivol *et al*. 2021; Salari *et al*. 2020). Individuals with a history of depressive symptoms often experience changes in eating behaviours (Paans *et al*. 2018), deleterious behaviours such as substance misuse (e.g. tobacco, alcohol, illicit drugs, and prescription medicines), poor sleeping patterns, and changes in physical activity behaviour

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(Stanton *et al*. 2019). Comorbid physical health condition such as heart disease or stroke, are at a significantly higher prevalence in people with depression and or anxiety often due to preventable physical health conditions (Brown *et al*. 2017; Stanton *et al*. 2019). Furthermore, a large proportion of premature mortality related to physical health conditions in those with mental illness are avoidable, whereby the effect of the physical health conditions can be reduced or avoided through early intervention (e.g. lifestyle) and health promotion (Brown *et al*. 2017).

Depression is typically recommended to be treated with antidepressant medication and/or psychological therapy such as cognitive behavioural therapy (National Institute for Health and Care Excellence 2022). Worryingly, antidepressant medications are often associated with undesirable metabolic changes in individuals taking them as treatment (Gill *et al*. 2020); an important consideration given people living with a high prevalence mental illness such as depression are at higher risk for developing cardiovascular disease, obesity and other metabolic diseases (Mazereel *et al*. 2020). Conversely, exercise is known to improve metabolic and cardiovascular health (Ostman *et al*. 2017), have fewer side effects compared to antidepressant medications, and ameliorate some depressive and anxiety symptoms (Gordon *et al*. 2017; Knapen *et al*. 2015; Morres *et al*. 2019; Ramos-Sanchez *et al*. 2021; Stanton & Happell 2014; Stubbs *et al*. 2017). Exercise for individuals with depression and anxiety should be prescribed by appropriately trained physical activity specialists (such as exercise physiologists, sports physiotherapists, or physical therapists; with the title often country specific). These specialists should work with the client to tailor exercise programmes to the specific needs of their client and create cognitive and behavioural strategies to encourage personal recovery-oriented practice and develop positive behaviours towards exercise (Lederman *et al*. 2016). Despite the benefits of exercise, mental health clinicians often do not prescribe exercise or refer to an appropriately trained physical activity specialist as part of traditionally accepted models of care for people with mental illnesses such as depression (Kleemann *et al*. 2020; Rosenbaum *et al*. 2018). The rationale for this is not fully understood; however, barriers may relate to mental health clinicians not being cognisant of the research supporting the benefits of exercise, lack of expertise to prescribe exercise, or not having access to or not knowing who appropriately trained physical activity specialists are (Korman *et al*. 2020). Furthermore, potential issues surrounding funding to support consumers to engage in exercise may be a contributing barrier. Additionally, the traditionally accepted models of care for mental health consumers, which often do not include exercise, may be a limiting factor (Korman *et al*. 2020).

The main service delivery models of care for people with mental illness include the Medical Model (which comprises community and hospital medically based care) (Winkler *et al*. 2017), a Public Health Model (addressing population knowledge and needs for the prevention or reduction of illness; Power 2009), and a Humanistic Model (which is person centred and looks at the consumer and their environment) (Benjamin 2011). Additionally, community-based mental health services within Australia and New Zealand often consider aspects of each of the previously mentioned models to approach care from a biopsychosocial model (Porter 2020). Encouragingly there is growing interest in lifestyle factors to produce better mental health outcomes in the prevention and treatment of mental illness (Exercise and Sports Science Australian 2017; Firth *et al*. 2020; Hui *et al*. 2021; Rosenbaum *et al*. 2018). Also termed 'lifestyle psychiatry', this movement in health provision is important since we know from history that there is no 'magic pill' to address the range of factors associated with mental illness. Managing modifiable risk factors such as those addressed by increasing exercise and physical activity of depressed individuals, holds promise to inform future service models. Considering the holistic needs of an individual also lends itself to a more culturally safe healthcare environment to meet the needs of more of the diversity of the population (Gilbert 2019). However, whilst this may be desirable, there are considerable pressures on the health care systems making the reality not always synonymous with this approach.

A broad range of health professionals such as psychiatrists, psychologists, general practitioners (GPs), nurses, social workers, and occupational therapists engage with mental health consumers in varying mental health settings. Whilst consumers may be encouraged to 'go for a walk' or to broadly 'keep fit', the prescription of exercise or referrals to allied health clinicians to facilitate exercise programs (such as, exercise physiologists, physiotherapists or physical therapists) do not tend to occur in the standard mental health treatment models. This is notwithstanding that the evidence previously outlined demonstrating that many mental health consumers would benefit both physically and psychologically from increased exercise and physical activity (Exercise and Sports Science Australian 2017; Firth

et al. 2020; Hui *et al*. 2021; Rosenbaum *et al*. 2018). Despite awareness of the benefits, health professionals that do not specialize in exercise prescription have frequently identified that prescribing and or advocating for exercise is beyond their knowledge and training or acknowledged it required an exercise professional (Kleemann *et al*. 2020; Radovic *et al*. 2018; Way *et al*. 2018). Further, the involvement of exercise specialists within a mental health team has only more recently been recommended (Exercise and Sports Science Australian 2017; Lederman *et al*. 2016; National Institute for Health and Care Excellence 2022; Rethorst & Trivedi 2013; Schuch & Stubbs 2019), but is not common practice. Health professionals in mental health settings have identified other barriers to exercise prescription focused on the client such as concerns for their physical and mental health and difficulties with social interactions as well as adherence (Glowacki *et al*. 2019; Radovic *et al*. 2018; Way *et al*. 2018). Other practical considerations health professionals identified as challenging to exercise prescription and advocacy for exercise were the financial implications (clients and organizations), lack of organizational support and availability of time and resources (Glowacki *et al*. 2019; Way *et al*. 2018). The aims of this study were to investigate: (i) mental health clinicians' understanding of the relationship between exercise and mental health, (ii) if and how exercise is used in their treatment approach of consumers with depression and anxiety, and (iii) the barriers to prescription of exercise.

METHODS

Design

A descriptive exploratory research design was used in this study.

Ethics

Ethical approval for the study was granted from the Swinburne University of Technology Human Research Ethics Committee (HREC) (Approval number: 20191329-1801). An explanatory statement detailing the purpose, expectation and use of data was provided to participants during recruitment. Three teams were invited to participate in the research: the youth mental health, adult mental health, and alcohol and other drug (AOD) services. All teams work with consumers who have depression and/or anxiety symptoms, using a recovery-oriented, community-based treatment model. The teams were made up of clinicians and non-clinicians who work together in a multidisciplinary model of care, however, only clinicians were recruited for the study. Participants provided informed written consent to use the data provided prior to undertaking the interview.

Participants

Mental health clinicians and AOD clinicians (counsellors, mental health nurses, mental health GPs, social workers, and psychologists) were invited to participate in the study. All participants were working in a multidisciplinary mental health or AOD team and self-identified as having experience treating depression and/or anxiety disorders. Ten participants (four males and six females) were recruited using purposeful convenience sampling from the health care organization via internal email.

Setting

This research was undertaken at a community health organization which provides a range of mental health and AOD services to young people (12–25 years of age) from 17 locations in a large metropolitan city in Australia with approximately 350 staff. The health service offers assessment and treatment of conditions such as anxiety, depression, trauma, substance use, acute stress, and other presentations. A high proportion of consumers accessing services at the organization have complex chronic conditions and co-existing mental and physical health conditions. Health services are available from GPs, mental health clinicians (social workers, psychologists, mental health nurse practitioners, counsellors, and peer support workers), allied health professionals including exercise physiology, physiotherapy, occupational therapy, podiatry, dietetics, and nutrition. All services are available to consumers using a variety of Federal and State Government funding sources which enables them to provide access to services at no or a small out-of-pocket cost.

Data collection

Data were collected via individual semi-structured interviews. The semi-structured interviews were guided by an interview schedule using sub questions (See Table 1), where questions were developed after

consultations with industry partners who are also listed as co-investigators on this research. The team represents experienced mental health nurses, exercise physiologists, a physiotherapist, a clinical psychologist, and nurse academics. Sub-questions, or prompts, were developed to elicit a deeper understanding of participants' experiences and these sub-questions were technical (e.g. their role) or reflective.

Prior to commencing, the two authors undertaking the interviews consulted to ensure they had a shared understanding of the process and content of the interview schedule to ensure consistency and fidelity of data collection. The authors went through opening and setting the scene, and the interview schedule of questions. Each author then practiced the interview questions with the other identifying where possible prompting or probing might be required and agreed to this for each question. Both authors briefly met after each interview to discuss the data collected comparing initial thoughts and ideas. Through this process, data saturation was identified as being reached after 10 participants that no new information was gained at this point. Interviews were undertaken individually via video call (Microsoft Teams, Microsoft®, Redmond, Washington, USA), and digitally recorded using a smartphone with voice recording software (Otter: Transcribe Voice Notes, Otter.ai Inc., Los Altos, California, USA), which was later used for transcription, thereby retaining the information from the verbal account true to its original nature (Braun & Clarke 2006). Participants were informed of the interviewers' background (registered nurse or exercise physiologist), and their interest in the research topic to provide background for the development of an exercise intervention for consumers with depression and anxiety.

TABLE 1 *Semi-structured Interview Schedule*

Questions
• Describe your understanding of the relationship between exercise and mood disorders?
• Describe what you think the benefits of exercise are for consumers with depression? Do you think there is anything detrimental for these consumers to undertake exercise?
• Describe what you know about exercise physiologists and physiotherapists?
• What types of exercise can you advise or refer consumers with depression to?
• What are the barriers for you to refer consumers with depression?
• What barriers do you foresee in consumers with depression engaging in exercise?
• What support do you need to assist consumers with depression to be more engaged in exercise?
• If you were able to refer a consumer with depression to an exercise program, would you refer some or all of those in your care?

Data analysis

Two authors (LG, HB) cleaned the transcribed verbatim text and verified the transcripts by comparing it with the recordings and sending to participants for member checking. Thematic analysis of the transcripts was undertaken by four authors (LG, DB, HB, and KE). The inductive thematic analysis was undertaken through several iterations of each transcript using constant comparison to generate initial themes and for the identification of data saturation. This commenced with an initial familiarization with the data, then the generation of codes and searching for and reviewing the ensuing themes. Themes were then defined, named, and recorded (Braun & Clarke 2006). As defined by Braun and Clarke (2006) a theme represents a pattern in responses or meaning contained in the dataset, and includes what is relevant about the data in relation to the research aims. This research was undertaken using an inductive approach towards the data, where the themes identified were strongly linked to the data themselves (Braun & Clarke 2006).

RESULTS

A total of 10 mental health clinicians with varying backgrounds were interviewed for this study: three mental health nurses, two social workers, four psychologists, and one mental health GP. The average time for each interview was 25 min per participant with the shortest time being 20 min and the longest 40 min. The data-driven inductive analysis of the views and comments made by the participants during the interviews identified three overarching themes: (i) knowing and not knowing, (ii) consumer comorbidities – the risk and benefit dilemma, and (iii) protecting vulnerable consumers.

Theme 1: Knowing and not knowing

Knowing and not knowing encompassed multiple aspects for participants related to their expert knowledge as well as what challenged them as specialist clinicians when they were not sure on certain aspects.

Knowledge and understanding of the relationship between exercise and mood disorders was an area that impacted referral rate of consumers for exercise by the participants, most could identify a positive link between exercise and mood disorders.

> There is evidence or research that's, you know, demonstrates a link between increased activity increasing endorphins and improving mood, yes so it's that physiological relationship... (P9)

However, participants expressed uncertainty about the appropriateness and/or safety of referring consumers to exercise.

> ... [from a] risk management perspective, I'm not a physio, I'm not an exercise physiologist trained in risk assessment... I wouldn't advise a physio without appropriate training, to undertake psychotherapy where they don't know a lot of risks (P9)

Participants' knowledge and awareness of their ability within the scope of their role in referring consumers to exercise physiologists impacted referral of consumers. Participants expressed uncertainty about the process for referral and indeed who in the team of mental health clinicians would be responsible for making the referral.

> [I have a] limited understanding ... of where to refer and what I can refer to. (P5)

> I wouldn't [have] even thought of an exercise physiologist to be honest as someone who might be able to assist with motivation or any of those sorts of things. (P4)

> If we could just know what the resources are, what the costs are, what the wait times are, and what you (physical activity specialists) exactly do as well. How do you approach the client ...[would] be very helpful. (P7)

Finally, it was identified that there was a lack of knowledge from participants about what to prescribe or recommend in terms of exercise. Most knew broadly that exercise was beneficial, but many were unsure of what would be appropriate and were driven mostly by consumer interest rather than an evidence-based framework.

> For a lot of our clients, it's just kind of encouraging a regular routine walk for half an hour in the morning, which is occasionally motivating and supportive for clients. (P5)

> ...whether it be walking whether it be, swimming, whether it be riding a bike or jogging, whatever is going to fit for the client.... (P4)

Theme 2: Consumer comorbidities – the risk and benefit dilemma

Clinicians participating mentioned how they considered the risks and the benefits of engaging consumers in exercise based on their pre-existing comorbidities. They expressed concerns around potential physical health issues impacting their ability to engage consumers in exercise.

> ...body size and whether they have exercised or not or if they have any physical health issues that's something you need to be aware of. (P4)

> with health conditions. I would want to make sure, physically they could do it, that they are well enough to exercise.... (P9)

In addition, participants considered if individual consumers were able to exercise without causing additional harm to their physical health.

> I suppose I am not getting in there and taking their blood pressure or knowing where they are at with their physical health. So, I would recommend something pretty gentle and low impact. (P6)

> ...metabolic disorders where their physical health might be compromised by engaging in exercise. (P5)

Participants identified, however, that they understood engaging their consumers in exercise had clear health benefits, both mental and physical. Examples noted were improving mood and cardiovascular health and supporting consumers to maintain motivation to engage with other therapeutic activities.

> improved motivation and improved productivity, concentration. Improved overall health and wellbeing for some of our consumers on particular medications as well, [which] can cause weight gain or increased hunger as well, so it can be to support consumers with maintaining healthy weight (P5)

> ...cardiovascular as well and you know just physically, just getting up and moving.... (P9)

Theme 3: Protecting vulnerable consumers

A notable aspect that influenced participants was their concern for the consumer's mental health and wellbeing

and not adding to this burden for the consumer. Participants expressed challenges related to consumers' initial low mood or other symptoms of their mental health condition impacting their motivation to engage them in exercise.

> [it is a] catch 22…you lose energy and motivation, alongside something like depression and therefore you stop exercising. (P1)

In addition, they were concerned about potentially exacerbating mental health issues by encouraging consumers to engage in exercise.

> …body image is often an issue. People not feeling good in themselves so they can be quite self-conscious going out in public. (P3)

> you don't want to set someone up to fail, you know, to put pressure on someone if you kind of say, look, I think you really should be doing exercise and I think that'd be helpful for you. And they sort of agree, but then they don't have the motivation to do it, or something's kind of blocking them taking that step. And then they end up feeling worse…. (P3)

An aspect of vulnerability identified from participants was the consumer's financial situation or access to funding presenting as a barrier (thereby limiting access to exercise services and transport to attend). This consideration impacted the participants' decision to refer or engage consumers in exercise activities.

> …financially, because in a perfect world, people get tailor made programs that are able to meet their specific fitness levels. (P2)

> For other clients it is around transport and availability of local services was more of a barrier. (P6)

Consumer interest in exercise or a particular type of exercise was another factor raised by multiple participants that impacted their referral to exercise. Participants expressed that they were conscious of ensuring that if they suggested exercise/s that it would have a positive motivational impact for their consumers as opposed to causing detrimental effects on their mood.

> I guess I'm mindful that I want [the desire to exercise] to be coming from them I want it to be their motivation…something that they want rather than me saying it's something you should do. (P3)

> one woman last week, I referred to pole dancing, only because it fit in with a whole lot of other factors, and she couldn't get motivated to get up and go for the daily walk or do anything like that. (P2)

DISCUSSION

While systematic reviews have consistently shown that structured exercise has a statistically significant antidepressant effect (Cooney *et al*. 2013; Krogh *et al*. 2017; Schuch *et al*. 2016; Stanton & Happell 2014), and best practice recommends exercise for depression as an adjunctive therapeutic intervention (Gelenberg *et al*. 2010; National Institute for Health and Care Excellence 2022; Pilling *et al*. 2009; Rethorst & Trivedi 2013; Schuch & Stubbs 2019), mental health clinicians remain unsure about referral or prescription of exercise for consumers. The current study identified a lack of understanding of the referral pathway and how to alleviate the concerns of cost to the individual, including the potential or perceived hidden costs (transport, clothes, shoes, etc.) associated with exercise. Clinicians in the study revealed a lack of understanding on how to appropriately incorporate prescribed exercise (e.g., modality) for consumers, despite knowing the benefits of exercise. Previous studies have also identified similarities in relation to the significance of exercise on depressive symptoms (Glowacki *et al*. 2019) yet the challenge to prescription appears to remain (Stanton & Happell 2014). Despite existing best practice guides for the role of exercise specialists, for example, accredited exercise physiologists and physiotherapist within the treatment of mental health conditions (Lederman *et al*. 2016), and previous recommendations for collaboration with such professionals (Stanton & Happell 2014), there remains uncertainty for mental health clinicians about the specialized skills of an accredited exercise physiologist (AEP) and the differentiation with the physiotherapist, and as our findings have shown, barriers to referral. Therefore, an important question coming from this research is: how do professionals who specialize in exercise prescription connect further with the mental health sector more broadly?

Not all allied health professionals who prescribe exercise or manage physical health conditions have the same training, experience or confidence working with people with mental health conditions, making it more challenging for mental health clinicians to understand the most appropriate referral pathway for exercise and physical activity prescription as part of a treatment plan. An interesting parallel can be drawn where exercise specialists may know that mental health is important,

but do not always feel competent to work with this population, and mental health clinicians know that exercise is important, but do not always feel confident to prescribe it, highlighting the feelings of uncertainty amongst both professions. An Australian study supports this notion reporting that while the vast majority of physiotherapists agreed they should play a role in the management of physical health in people with severe and persistent mental illness (93%), only 18% felt confident in managing physical health conditions in this population (Andrew *et al*. 2019). Fibbins *et al*. (2019), recently have advocated for leading international mental health organizations to collaborate to promote the services of physical health specialists, suggesting that accredited exercise physiologists, whose training includes exercise prescription for people living with mental illness and associated comorbidities, are best placed to deliver these services in Australia.

Exercise physiologists have a mandated component in their accredited training programmes to ensure practitioners are component to prescribe exercise to clients with mental health conditions (Exercise and Sports Science Australian 2017; Lederman *et al*. 2016). Physiotherapists also have specific thresholds that stipulate their role is inclusive of implementing strategies to manage the mental health of clients (Australian Physiotherapy Council 2015). Therefore, exercise physiology and physiotherapy are professions both able to recommend exercise, but despite the evidence supporting exercise as an effective treatment are not routinely employed by or funded within mental health services (Gordon *et al*. 2017; Ramos-Sanchez *et al*. 2021). This, in turn, limits exposure and knowledge by mental health clinicians of the expertise and capacity of these professions to safely prescribe and supervise exercise programmes as confirmed in our study results. Evidence supporting a multidisciplinary approach to chronic and complex disease is well established but whilst mental health services have often moved to include a variety of mental health clinicians to support best practice models of integrated or shared care (Colizzi *et al*. 2020; Kelly *et al*. 2011), this has not generally expanded to the inclusion of professionals able to prescribe exercise programmes tailored to the physical health parameters of their clients, despite the frequent coexistence of mental and physical health conditions (Brown *et al*. 2017; Stanton *et al*. 2019). As highlighted in our results, the mental health clinicians within these services continue to lack exposure to those qualified to assist their clients, and would require further training to understand what could be prescribed and/or the referral processes. Given the current constraints on the mental health sector and the stretched workforce due to high workloads and burnout (O'Connor *et al*. 2018; Scanlan & Still 2019), this appears an unrealistic expectation. However, evidence from established multidisciplinary services such as pain management have successfully worked together to consider all aspects of a consumer's health needs (Sokol *et al*. 2021; Townsend *et al*. 2006). In such examples, relevant health professions work under the one umbrella to understand the contributions each can make, enabling prioritization and tailoring of the most appropriate services for each individual to optimally manage their condition. The guidelines supporting the implementation of exercise within mental health are evident in the literature; however, as yet, this has not translated into exercise professionals being broadly incorporated into the multidisciplinary milieu in mental health teams. A lack of understanding and recognition of what these professions can do is therefore a barrier to referral and inclusion within teams, and until exercise specialists are included in the framework or policy during the establishment of mental health services this issue will continue to perpetuate.

In our study, participants expressed concern about the consumer's ability (or inability) to do exercise due to their comorbidities, as well as factors relating specifically to their mental health presentation (such as poor body image or social anxiety in group settings). Treatment decisions resulting in missed care, such as exercise therapy as an adjunctive to usual mental health care, has the potential to exacerbate existing physical problems. This form of diagnostic overshadowing (Nash 2013) may be driven by a clinician's lack of specialized knowledge about the dosage or prescription that would be beneficial and the need to concurrently consider multi-morbidities (such as mental illness and physical illnesses) which is an integral part of the training of some exercise specialist (Exercise and Sports Science Australian 2017; Rosenbaum *et al*. 2018).

For many mental health clinicians, the role of advocate for vulnerable consumers in their care is a key feature of service provision. In the mental health sector, vulnerable or at-risk populations may include Aboriginal and Torres Strait Islander people, young men, (culturally and linguistically diverse) CALD communities for example, as they are faced with higher health risks and more barriers to access services. Often clinicians may be negotiating on behalf of consumers, where their role is orientated towards the protection of the person's rights (Stomski *et al*. 2017). In our study, we found that participants reported concern about placing

more stressors on their consumers by introducing exercise into their treatment plan.

Mental health clinicians reported wanting the motivation for exercise to be internally driven by the consumer. Motivational interviewing (MI) is a clinical skill which is focussed on identifying 'stages of change' and supporting consumers to make their own decisions about change, by identifying discrepancy between the current and desired state/value/behaviours. It is a core skill for mental health and AOD clinicians and is commonly used in community-based mental health services where treatment plans are typically consumer-led, recovery-oriented, and person-centred. When used by clinicians in a therapeutic interaction, MI is not the lone intervention and is often combined with other forms of therapeutic services to promote healthy behaviours (Wong-Anuchit *et al*. 2018). Motivational interviewing could therefore be used to focus on exercise engagement and support consumers to increase motivation and behaviour change towards introducing exercise (Madson *et al*. 2009).

Motivational interviewing is a skill utilized by exercise scientists and accredited exercise physiologists (AEPs) in Australia (Fibbins *et al*. 2019). There is a disconnect between the skill sets of the different health professionals and the interdisciplinary understanding of these shared skills by the different professionals which warrants further consideration. Perhaps more integrated multidisciplinary or interdisciplinary professional development or consideration of the educational training provided to practitioners-in-training may go some way to addressing this disconnect. The role of advocating is undertaken in addition to one's clinical responsibilities and is encompassed in a holistic approach to care provision. However, there may be clinical moments where advocacy is provided irrespective of whether the consumer has been consulted (Varghese 2015). An important aspect of providing this level of support as a mental health clinician is to ensure the consumer is enabled to speak on their own behalf and supported to take a leadership role in their own illness-health experience and decision making.

LIMITATIONS

The community healthcare setting where this study was undertaken was a multisite community-based environment providing health care to consumers with mental illness. Mental health care is undertaken in various clinical settings and the insights from this study may be limited to the community context. Nevertheless, the outcomes provide new insights from a range of mental health clinicians from multiple sites in relation to their knowledge of exercise as an adjunct to routine mental health care. Additionally, this study was undertaken during the Covid-19 pandemic impacting the availability and recruitment of mental health clinicians as participants. Furthermore, the higher workload burden due to increased demands on the service during the pandemic may have limited the ability to consider exercise prescription compared to pre-pandemic circumstances.

CONCLUSION

The rise of high prevalence mental health conditions, such as depression and anxiety has been exacerbated during the global pandemic, in turn, increasing the burden on mental health services. The requirement to provide appropriate treatment and advocacy to protect potentially vulnerable consumers remains at the forefront of the clinicians' role. However, for mental health clinicians, uncertainty remains around the integration of exercise as a treatment and the referral of consumers to physical health specialists for exercise prescription. Enhancing mental health clinicians' knowledge of the beneficial role of including exercise as part of treatment for consumer's experiencing depression and anxiety is a first important step. Mental health services can further support the integration of exercise in care practices by implementing policies to support: exercise prescription as part of treatment; referral to exercise and physical activity specialists; education on exercise prescription for clinicians; and embedding the role of exercise and physical activity specialists in mental health frameworks of care and funding to improve clinical outcomes for consumers.

Relevance for clinical practice, policy, and research

Whist there are guidelines suggesting the implementation of exercise as part of mental health care (Exercise and Sports Science Australian 2017; National Institute for Health and Care Excellence 2022), it is evident that for those working in a community health setting in this study more understanding of this advocacy would be advantageous. Clinical practice recommendations identified from the results of this study include professional development for mental health clinicians related to practice guidelines on exercise and mood disorders.

This consideration is inclusive of education on how suitable exercise is prescribed, what constitutes exercise prescription, and how to do this safely and effectively to better understand what it is they would be referring their clients too. While considering prescription of exercise, it is important to highlight the promotion of exercise to clients, mental health clinicians are already highly skilled in behaviour change and have generally received training in techniques such as motivational interviewing, and it is recommended that these skills could be further enacted to engage clients in exercise. Clinicians need more information or access on where and how to refer to exercise and physical activity specialists for appropriate exercise prescription and what services each can provide – for this a supported referral pathway is recommended to support exercise uptake to ensure a shared understanding of referral pathways between the respective services. In addition, while translating exercise interventions into clinical practice, health services are recommended to use evidence-based translation science for effective, sustained adoption of such treatment options (Deenik *et al*. 2019). It is also recommended that health care settings providing mental health care establish accompanying policy supported by best practice, on the provision of exercise and/or the referral (internal or external) of consumers to appropriate exercise and physical activity specialists (Lawrence & Webb 2020; Lederman *et al*. 2016). Shared care or integrated models of care are well established as best practice for provision of care in mental health settings (Kelly *et al*. 2011). It is recommended that this extends to include exercise specialists in such models, recognizing the unique and shared skillsets that each health professional can contribute to a consumer-led care agreement (Exercise and Sports Science Australian 2017). Consideration is also required in relation to funding agreements or the understanding of the funding to enable individuals or organizations to support the integration of physical and mental health services into new or existing care frameworks. The impact of workload on an already burdened workforce must be considered when introducing new training, referral pathways, or care frameworks to avoid change fatigue, and should rather focus on the opportunities to enhance patient outcomes and disperse the collaborative care of consumers amongst a broader team of health professionals.

Our findings offer a basis for both reflection of current practice and further research about enhancing understanding and use of exercise prescription and embedding exercise specialists into mental health care contexts as an adjunct to usual treatment for consumers with depression and anxiety. Community health services are an ideal setting in which to further implement or pilot this work, given the range of low-cost services available from both mental health and allied health practitioners within the one organization.

ETHICAL APPROVAL

Ethical approval for the study was granted from the Swinburne University of Technology Human Research Ethics Committee (Approval number: 20191329-1801).

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AUTHOR CONTRIBUTIONS

LG–Overall study oversight (methods, ethics, data collection, analysis, discussion, drafts, response to reviewers); AB–Ethics, background, discussion, edits; KLE–Background, analysis, discussion, edits; HB–Ethics, data collection, analysis, discussion, edits; DB–Ethics, analysis, discussion, edit; TS–Ethics, data collection, discussion, edits.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study have been included within the paper.

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