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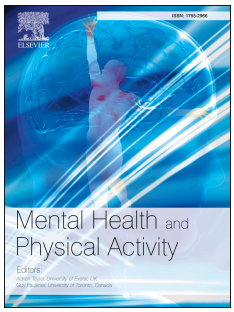

Offering physical activity advice to people with serious mental illness: The beliefs of mental health professionals

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Abstract

Objectives: The purpose of this study was to explore the motivational beliefs of mental health professionals in giving advice on physical activity as part of a care plan for people with serious mental illnesses (SMIs) in a community setting.

Methods: Participants were 32 mental health care professionals from four community teams in the North East of England. Focus group interviews were conducted using open-ended questions aimed at eliciting beliefs that underpin three types of social–cognitions according to the Theory of Planned Behaviour (TPB, Ajzen, 1991). Data were content analysed according to the three types of beliefs of TPB: outcome beliefs, normative beliefs and control beliefs.

Results: Outcome beliefs included perceived influence on the therapeutic relationship with service users, benefits for patient health and quality of life, and health and safety concerns. Sources of social influence included the healthcare organisation, healthcare workers, and families and peers of the patients. Control beliefs included patient motivation, availability of support from other trained health professionals and access to facilities as well as competing priorities and perceived level of expertise.

Conclusions: Offering physical activity advice to people with SMIs as part of an individualised care plan in a community setting was viewed as beneficial by healthcare workers. However, barriers exist that may impede advice giving. The TPB framework is useful for exploring and describing these characteristics. Further quantitative research is needed to examine relationships between the beliefs identified in this study and advice giving behaviour.

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Keywords: Theory of Planned Behaviour, serious mental illnesses, health professionals, physical activity, advice, barriers.

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1. Background

The physical health of people with serious mental illness (usually abbreviated to SMI and commonly referring to illnesses such as schizophrenia and bipolar disorder; NICE, 2017) is often poor and average life expectancy is reduced by around 15 years in compared to the general population (Chesney, Goodwin & Fazel, 2014; Walker, McGee & Druss, 2015). Significant contributory factors are obesity, hyperglycaemia and other features of metabolic syndrome, which increase the likelihood of cardiovascular disease (Gardner-Sood, et al., 2015).

Risk of cardiovascular mortality is attributed in part to side effects of anti-psychotic medication and also modifiable lifestyle factors and can be reduced through changes to smoking, diet and physical activity (Curtis et al., 2016; Vancamfort, Stubbs, Ward, Teasdale, & Rosenbaum, 2015a). However, a recent systematic review of 13 studies indicated that people with SMI engage in significantly more sedentary behaviours than those without (Stubbs, Williams, Gaughran, & Craig, 2016). Furthermore, a meta-analysis of 35 studies indicated that individuals with SMI who are physically active are significantly less active than healthy controls (Stubbs et al., 2016). These findings are supported by a more recent review of 69 studies by Vancampfort et al., (2017) and indicate that individuals with SMI are significantly less likely than healthy controls to engage in sufficient physical activity to gain health benefits.

An increasing number of studies support the positive impact of physical activity on physical health, psychiatric symptoms and quality of life in people with SMI (Firth, Cotter, Elliott, French, & Yung, 2015; Rosenbaum, Tiedemann, Sherrington, Curtis, & Ward, 2014). Sedentary lifestyles are associated with more serious negative symptoms and poor cognitive and socio-occupational functioning for individuals living with psychosis (Suetani, Waterreus, Morgan, & McGrath, 2016). Participation in physical activity is particularly important for

individuals receiving treatment with antipsychotic medications as many can increase the risk of metabolic syndrome, particularly when combined with a sedentary lifestyle (Vancampfort et al., 2015b). Efforts to increase physical activity participation and reduce sedentary behaviours within the care plan of people with SMI could reduce not only physical health risk associated with mortality, but may also facilitate longer term functional recovery (Currie & Malik, 2016).

In the United Kingdom (UK) the National Institute for Health and Care Excellence, (NICE, 2014) clinical guidelines for treatment and management of psychosis and schizophrenia in adults recommend that "people with psychosis or schizophrenia, especially those taking antipsychotics, should be offered a combined healthy eating and physical activity programme by their mental healthcare provider" (NICE, 2014, 178). Mental health care workers are well placed to promote and advise physical activity participation due to their therapeutic relationship with service users (Bradshaw & Pedley, 2012). However, motivating patients with SMIs to act on advice can be challenging (Glover, Ferron, & Whitley, 2013).

Researchers have examined the views of mental health nurses regarding physical health care (Robson, & Haddad, 2012) and beliefs about exercise prescription (Stanton, Happell & Reaburn, 2015). In the UK, a survey of mental health nurses indicated that they hold generally positive attitudes towards, and feel confident, delivering physical healthcare that includes offering advice on diet and exercise. This is more likely if they hold additional general nursing qualifications or have additional physical health care training or experience (Robson, Haddad, Grey & Gournay, 2013). However, nearly half of the 585 participating nurses noted that a key obstacle to physical health care was difficulties getting clients to follow diet and exercise advice. More than 80% of nurse respondents reported they would like further training on the management of diabetes, cardiovascular health, and nutrition. This barrier was noted by nearly 90% of mental health staff in a more recent UK

study with in-patients indicating that despite staff training, additional support is perceived necessary in order to facilitate uptake of personalised health care plans (Haddad, Llewellyn-Jones, Yarnold & Simpson, 2016).

Qualitative studies have provided further detail and understanding of these barriers to physical health. Barriers reported include lack of training, competing priorities, and lack of patient motivation (Happell, Scott, Platania-Phung, & Nankivell, 2012). These are consistent with barriers reported more generally in primary health care (Hébert, Caughy, & Shuval, 2012). Thus despite having positive attitudes to advice giving, personal and systemic barriers may impede this process.

Stanton et al. (2015) used the Exercise in Mental Illness Questionnaire – Health Practitioner Version (EMIQ-HP, Stanton, Happell & Reaburn, 2014) to examine the exercise-prescription practices of 34 mental health nurses working in inpatient mental health facilities in Australia. A significant proportion of the mental health nurses in the study did not agree with the 11 barriers to exercise prescription presented on the EMIQ-HP. For example, over 85% disagreed with the statement that 'exercise will not be of benefit', or that 'exercise will worsen a mental health consumer's condition', with more than 50% of the nurses reporting that they always or mostly prescribed exercise.

In addition, many reported optimism that patients would engage with exercise prescription, and that current workloads were not a barrier to exercise prescription. The authors suggest their findings may be specific to work settings where exercise prescription is well supported. Thus these findings may not necessarily represent the perceptions of healthcare professionals working in community settings in the UK.

Understanding and addressing the social cognitive factors that underpin motivation to offer physical activity advice to individuals with SMIs could support mental health professionals who are expected to advise health-related exercise and follow NICE guidelines regarding

physical activity as part of a care plan in community settings. The Theory of Planned Behaviour, (TPB: Ajzen, 1991) is a social cognitive model of behaviour motivation. The model suggests that intention to carry out an activity such as advice giving will be influenced by beliefs that underpin three social cognitions. Outcome beliefs are the anticipated positive and negative consequences of an action. According to the TPB these underpin a person's attitude towards the behaviour. Normative beliefs are individuals and groups whose opinions and actions regarding the behaviour are considered when deciding whether to perform the behaviour in question or not. Normative beliefs underpin a person's perception of social pressure or subjective norm. Control beliefs are the perceived barriers and facilitators to a course of action. The perceived impact of these underpins what the TPB terms perceived behavioural control. Elicitation of the beliefs that underpin attitude, subjective norm and perceived behavioural control is a necessary first step in research that aims to understand and explain motivation (Ajzen, 1991). Understanding the beliefs that underpin the motivation of mental health care workers to offer physical activity advice is key to improving the availability and delivery of physical activity interventions in patients with SMI.

The TPB has considerable support across a range of health behaviours including physical activity promotion and advice giving (McEachan, Conner, Taylor & Lawton, 2011). Recently it has been utilised in the explanation of health care practice such as prescribing (Tsiantou et al., 2013) and nurses' intention to follow smoking cessation advice guidelines (Puffer & Rashidian, 2004). A systematic review by Hoffmann, Bennett and Del Mar (2013) concluded that the TPB is the most appropriate theory to explain intention and predict the clinical behaviour of healthcare professionals.

What this paper adds

This paper describes a framework for understanding the influences on mental healthcare professionals when advising physical activity as part of care plans for individuals with SMI in a community setting. This is relevant to service provision and clinical practice as a detailed understanding allows for implementation of measures to reduce barriers and facilitate advice giving. Ultimately this makes behaviour change by patients more likely and addresses a significant health concern in a vulnerable group.

Study Aims

This study aims to use the Theory of Planned Behaviour to identify the beliefs of mental healthcare professionals working in community settings regarding motivation for advising health-related physical activity.

2. Method

2.1. Design

Four focus groups were conducted to obtain qualitative data to gain insight into the beliefs of participants regarding their motivation to offer physical activity advice. The focus group topic guide followed Ajzen's guidelines, (1991) and focused on the elicitation of outcome, normative and control beliefs.

2.2. Participants and Recruitment

Community mental health teams, including one 'early intervention in psychosis' (EIP) team were randomly selected to participate. Participants were recruited by invitation from their team leader in person or via email. This invitation was sent to all members of the team for whom physical activity advice was considered part of their clinical role. The teams included healthcare staff from a range of health disciplines including nursing, psychiatry and clinical

psychology. Although all mental healthcare workers had direct clinical contact, the care co-ordination duties were primarily the role of nursing staff. Local authority care (social work) was provided separately but alongside health care for several years.

32 health care professionals consented to take part and attended one of four focus groups held at their place of work. All were provided with an information sheet, consent form and short demographic questionnaire. Demographic information included current job title and role, length of time in current role, and length of time working in mental healthcare. We also asked for information on any special training regarding physical activity advice for patients and how often advice was given on a four-point scale of never, occasionally, most of the time, always. We also asked for any additional information in relation to the type of advice given.

(insert table 1 here)

Participants were community mental health care workers employed in the North East of England in the UK who worked with patients with serious mental illness (SMI). Most (75%) were female.

(insert table 2 here)

Only 9 (28%) offered physical activity advice to service users most of the time or always, the majority (23; 72%) offered advice only occasionally or never. Advice was typically offered verbally alongside healthy living advice. Most (28; 87%) had no specific training regarding recommended physical activity guidelines.

2.4. Procedure

Focus groups took place between December 2016 and June 2017 with group sizes of 12, 6, 8, and 6. Groups were audio recorded and facilitated by one female (SL) and one male (EB)

member of the research team. Both specialise in health-related physical activity and the lead facilitator is a psychologist. Neither were known to the participants prior to the group meeting. Questions followed Ajzen's 2006 belief elicitation guidelines and reflected positive and negative anticipated outcomes, social referents who approve or disapprove and barriers and facilitators consistent with the outcome, normative and control beliefs of the TPB *(see Table 1*). The target behaviour in this study was advising health-related physical activity to service users during the next clinical contact. The qualitative approach allowed comparison between groups whilst remaining flexible regarding novel directions and ideas emerging from within each group. Each focus group lased approximately 40 minutes.

(insert table 3 here)

2.5. Ethics

The study was approved by the health service committee of Northumberland, Tyne and Wear NHS Foundation Trust and the University of Sunderland (RES-16-007). Participants were reminded that participation was voluntary and that numbers were being used rather than names in order to preserve anonymity but still match background information to audio recordings at the start of each discussion.

Participants were told that participation was voluntary and that numbers were being used rather than names in order to preserve anonymity but still match background information to audio recordings at the start of each discussion.

2.6. Analysis

Focus groups audio recordings were converted into text by one member of the research team. Transcripts were then checked for errors by another member of the team through reading these transcripts whilst listening to the interviews. Participants were not invited to check the

transcripts due to anonymization of data. Qualitative analysis was guided by the thematic analysis framework proposed by Braun and Clark (2006), as this allows flexibility regarding the use of inductive and deductive reasoning. In order to maximise rigour, two members of the research team familiar with the TPB (SL and SA) independently coded their own copy of a sample transcript. Findings were then discussed regarding interpretation and the identification of three types of social cognitions (outcome, normative and control beliefs). Both researchers then read the transcripts from the other three groups in order to identify any additional beliefs and determine that saturation had been achieved. Descriptions and exemplar quotations of the resulting outcome, normative and control beliefs were agreed by SL and SA then presented to EB for confirmation of consistency in interpretation. SL and SA then independently coded all transcripts using these categories in order to carry out a content analysis based on sample frequency as described by Hsieh and Shannin (2005).

3. Results

Outcome beliefs

Perceived consequences were generally positive. Advantages reported included improvement of patients' physical and mental health as well as their quality of life. For example, participants described the potential of physical activity to elevate mood and support sleep as well as offering a distraction from symptoms of mental illness

> "*It's just trying to give them [patients with psychosis] a bit of a break, to give them something else to concentrate on, maybe to take away some of their issues"* (FG2).

Influence on the therapeutic relationship between patient and health professional was the most frequently cited outcome belief. Participants typically suggested that physical activity was a useful vehicle for enhancing their therapeutic relationship

"*There's that bond you create with the sharing of the exercise whether it be a walk, squash match or whatever, there's that sharing. Without the bond the support work is weak*" (FG1).

However, not everyone agreed that offering advice about physical activity would have a positive influence on their relationship with their client.

"*They might withdraw from sessions because they might think that every time they come you're going to be asking, or they might feel that they're letting you down in some way, so it [giving physical activity advice] might become a barrier in terms of your therapeutic relationship with someone"*. (FG1).

Furthermore, offering exercise advice was considered by some to carry a possible risk to the health and safety of the patients. Participants indicated hesitation for example if they considered their client to be physically unfit or the activity to be clinically indicated.

"*I was very keen to ensure that he asked the GP if that was safe for him to go [to play badminton]"* (FG1).

One person suggested that in certain circumstances there could be a possible risk to others

"*Some [individuals] carry risks to the public. I wouldn't be then encouraging them to go to a busy gym*" (FG2).

Some indicated a degree of ambivalence when considering the perceived effectiveness of physical activity advice. For example, in one group a participant remarked

"Y*ou just don't think that it's worthwhile, because you don't feel that people [patients] will take your advice*".

Another indicated that this may reduce the likelihood of offering advice in future,

"L*earned helplessness almost on our part*" (FG1).

Normative beliefs

The employing organisation (an NHS Trust) was the most frequently cited source of social influence on physical activity advice giving. This was typically viewed as a standard part of physical health monitoring and was expected as part of an individual's care plan.

> "*It's a big part now physical health, so we have to. It's one of the main kinds of things we are encouraged to do. To encourage other people, encourage clients to be physically active*" (FG1).

However, not everyone agreed that this was a strong social influence

> "*It's not really pushed to be honest, it's never really mentioned …the goal is to get them to a shop and then that's it. So it's never really in the care plan to get this person active*". (FG2).

Other sources of social approval were colleagues and the health care professional themselves, particularly if they themselves were physically active. Broader social influences were government recommendations for physical activity often obtained via the media

> "*What we hear about in the news*" and "*it's what the government recommends*" (FG2).

One other potential social influence was approval or disapproval of family and friends of the patient. Typically, this was cited in the context of others likely to hinder participation rather than hinder advice giving *per se*.

Control beliefs

A number of factors were identified as potential barriers or facilitators when trying to implement physical activity advice in practice.

Factors pertaining to the patient

The level of patient motivation was the most frequently cited control belief. Decisions whether to advise physical activity were influenced by a patient's level of motivation.

"*I mean from my experience, usually it's been very much, kind of goal orientated from the client. It's more if they want to increase their activity levels. Then I'll help them do that.*" (FG3).

Generally there was a perception that persuading clients to engage in physical activity was complicated by factors related to the patients' current physical ability and mental health status.

"*I think it's complicated by the fact we are getting people of an older age group now. ……But it does involve a lot more digging around and getting to know them and their families to get a bit of an insight into what they can and can't do typically, regardless of their mental health. So I think it does involve a lot more work to get people active when they have got a lot of other things going on.*" (FG3).

In addition, it was often considered necessary to give consideration to issues such as patient social support.

"*It's a huge difference if their friends do it as well and or family members. That's a big big thing if they've got somebody they can go with.*" (FG1).

In general, physical activity was considered unlikely to appeal to most patients.

"*I've got one patient on my caseload who was interested in wanting to attend a gym and exercise. But like that's probably the first person*" (FG2).

Factors referring to mental healthcare provision

There was a general perception that support was needed in the form of increased funding and additional resources to increase opportunity and access to physical activity support and facilities.

"*We just haven't got the resources out there, there's just nowhere to send them. They used to have exercise therapy on a Thursday morning but then they cut it didn't they because of funding*" (FG2).

Despite viewing physical activity advice as beneficial all noted that at times there were other activities that would take priority within their work-roles and responsibilities.

"*I think it's quite difficult to do it for everybody, or remember to raise it for everybody because there is so much else to do*." (FG1).

Physical activity for physical health gains was therefore viewed as secondary to their main role in the co-ordination of mental healthcare activities.

"*We would take them outside of the house on a graded programme (of exercise) so that they can overcome their anxiety, but that wouldn't be doing things like exercise really. It would mostly be kind of like, taking people to the shops, or for doing the essential things*." (FG2).

Facilitators identified were support in the form of educational information leaflets to give patients

"*It is about having information though isn't it? Whether that's what groups are available or just general information that you can begin a discussion with somebody and they can go away with something for them to read*." (FG1).

Although physical advice giving was not considered difficult, there was a concern over level of expertise

"*We're not experts in that area really. We can advise and we know the benefits but you know were not experts in the sense that were telling somebody what's a safe exercise routine given your body weight and your physical health*" (FG1).

Some suggested that increased knowledge about physical activities that were safe as well as beneficial, perhaps in the form of educational support materials would increase confidence in

advice giving. Support from other trained professionals with expertise in physical health was also considered to be a positive facilitator. Organisational support that would allow referral to exercise on prescription or exercise sessions run by an occupational therapist or specialised health team were offered as examples.

> *"I suppose what's helpful would be the gym on referral. Places where there is support there like people with experience around physical health. Rather than just going to a local gym and not having that one-to-one support and monitoring of physical and mental health issues"* (FG3).

4. Discussion

This study has provided insight into the outcome, normative and control beliefs that mental health care workers take into consideration regarding their intention to offer physical activity as part of a community-based mental healthcare plan for individuals with SMI.

Overall, despite some concern about potential harm, the perceived outcome of giving physical activity advice was generally favourable and included the anticipation of health and wellbeing benefits for patients. The most salient advantage for mental health care workers was the potential to enhance the effectiveness of their therapeutic relationship with their client. While they all accepted the need to comply with organisational recommendations to include physical activity advice within the care plan of individual patients, more than 70% reported only occasionally or never offering advice. In accordance with the TPB, we suggest that the barriers and facilitators identified in this study may contribute to our understanding of this.

The barriers identified in this study reflect those reported in previous studies with mental health professionals (Happell et al., 2012; Stanton et al., 2015) and primary healthcare in general (Hébert et al., 2012). These included patients being physically or mentally unwell or

there being other more immediate priorities. For many, there was a perception of a lack of expertise and a need for increased support for them to deliver advice and motivate patients to act on this advice. Previous studies have shown that increasing opportunity to be physically active and offering advice can be ineffective without additional social support (Firth et al., 2016). Organisational support in the form of access to a referral pathway or specialists trained in physical activity interventions was one possible solution suggested by participants in this study. The perception that patients may lack motivation reflects poor patient compliance or concordance frequently cited in similar research (Happell et al., 2012). Extending health practitioner knowledge, skills and resources to include motivational strategies that help patients implement and maintain physical activity could increase mental health care workers perceptions of expertise.

Comparison of the beliefs identified in our study with those included on the EMIQ-HP indicated many similarities. Barriers to prescribing exercise to people with mental illness presented on the EMIQ-HP include ‘My workload is already too excessive to include prescribing exercise to people with a mental illness’ and ‘Prescription of exercise to people with mental illness is best delivered by an exercise professional such as an exercise physiologist’. We consider these to reflect the control beliefs ‘prioritisation’ and ‘support from other health professionals’ identified in our study.

However, barriers to prescribing exercise presented on the EMIQ-HP also include: ‘I’m concerned they might get injured while exercising’ and ‘I’m concerned exercise might make their condition worse’. According to the TPB, these beliefs are perceptions of the advantages and disadvantages of prescribing exercise and reflect outcome rather than control beliefs. It is possible therefore that a health-care professional can perceive many advantages (outcome beliefs) toward prescribing exercise but also perceive there to be a considerable number of barriers (control beliefs) that would make such an activity difficult. Utilising a theoretical

model such as the TPB to categorise beliefs may help us understand why nurses for example, did not agree with barriers presented on the EMIQ-HP (Stanton et al., 2014). The strength and evaluation of such beliefs could determine the influence on motivation to offer such advice. Further quantitative research is necessary to examine the relationship between these beliefs and actual advice-giving behaviour. The beliefs presented could be used to develop a TPB-based quantitative questionnaire to offer insight into the issues to consider when supporting the role of health practitioners in guiding healthy lifestyle management.

Strengths, Limitations & Suggestions for Further Research

Several limitations may limit the generalisability of these results. For example, the beliefs presented here are based on a qualitative analysis of interviews with a small number of participants. Nonetheless, the beliefs cited were comparable to those reported in similar studies. Furthermore, data saturation was reached after the first two focus groups were completed. We followed guidelines according to the theoretical framework of the TPB and the thematic analysis framework proposed by Braun and Clark (2006). We carried out rigorous checking procedures including a content analysis based on themes proposed. We therefore consider the analysis applied to this study to be robust and reliable. One of the strengths of this research is the diversity of participants who had a range of healthcare experience and roles. We are confident therefore that the views presented here reflect those experienced by a range of health practitioners working in community mental health settings.

Finally, future work could consider the use of the theoretical domains framework (TDF; Atkins et al., 2017). The TDF has been used increasingly widely to examine and promote adoption of clinical guideline-based practice (Heslehurst, Newham, Maniatopoulos, Fleetwood, Robalino, & Rankin, 2014) and could be used in future work to help systematically identify barriers and facilitators to behaviour change for people with SMI.

Conclusion

This qualitative study has identified the beliefs that underpin motivation for giving physical activity advice as part of a mental healthcare plan for individuals with SMI in a community setting. The beliefs presented offer an understanding of the cognitive foundations of attitude, subjective norm and perceived behavioural control of the TPB (Ajzen, 1991). Utilising the framework of the TPB offers empirically based explanations that could be used to inform and enhance behaviour change and promotional strategies to improve the uptake of physical activity for people with SMI.

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Table 1. Participant characteristics

	Range	Mean (SD)
Age (years)	19-61	41.8 (11.6)
Clinical experience (years)	≤ 1 – 35	16.01 (10.5)
Time in current role (years)	≤ 1 – 24	7.36 (7.33)

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Table 2. Participant job role

	Number	Percentage
Nurse	13	40.5%
Support worker	10	31.3%
Clinical psychologist	4	12.5%
Team leader	3	9.5%
Psychiatrist	2	6.2%
Total	32	100%

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Table 3. Focus group interview guide

Outcome beliefs
What do you believe are the advantages of advising health-related physical activity to service users during your next clinical contact?
What do you believe are the disadvantages of advising health-related physical activity to service users during your next clinical contact?
Is there anything else that you would like to mention with regard to advising health-related physical activity to service users during your next clinical contact?
Normative beliefs
Who are the individuals or groups who would approve of advising health-related physical activity to service users during your next clinical contact?
Are there any individuals or groups who would disapprove of advising health-related physical activity to service users during your next clinical contact?
Are there any other individuals or groups who put pressure on you when you are deciding whether to advise health-related physical activity to service users during your next clinical contact?
Control beliefs
What factors or circumstances would make it easier for you to advise health-related physical activity to service users during your next clinical contact?
What factors or circumstances would make it difficult or impossible to advise health-related physical activity to service users during your next clinical contact?
Are there any other issues that come to mind when you think about advising health-related physical activity to service users during your next clinical contact?

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Mental health professionals see many advantages of advising physical activity.

Engaging patients with serious mental illness in physical activity is difficult.

Physical activity advice is expected as part of a care plan but is not always offered.

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