Nurses' views on physical activity for people with serious mental illness

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ABSTRACT

Objectives: People with serious mental illness experience heightened physical ill-health. Physical activity is an effective strategy for improving physical health in this group. This paper explores nurse views on the place of physical activity in the physical health care of people with serious mental illness who are receiving mental health care services.
Methods: A qualitative exploratory study involving 38 nurses working in a regional and remote area of Queensland, Australia. Focus group interviews were audio recorded and transcribed and a thematic analysis was conducted.
Results: Holism was identified as the main theme and physical activity was thought about as an aspect of holism at the level of the person and environment. For nurses, holism equated with supporting consumers in being more physical active and having healthier lifestyles. This was qualified by the sub-themes of fragmentation (that rendered physical activity difficult for consumers, and the nurses supporting them), and integration (where nurses and colleagues sought to address fragmentation in conjunction with consumers, but with transient success).
Conclusion: As part of their holistic outlook, nurses recognise the importance of physical activity for consumers' overall health, and were involved in promoting physical activity through health education. When nurses tried to develop holism in mental health care (e.g. re-integrating services) sources of fragmentation were too significant and wide-ranging to overcome.

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1. Background

Physical and mental health comorbidities are common (De Hert et al., 2011; Hardy & Gray, 2010; Jacobi et al., 2004; Lawrence & Kisely, 2010), and persons diagnosed with serious mental illnesses (SMI) such as schizophrenia and major depressive disorder have a relative reduced life expectancy of around 25 years (Brown, Kim, & Mitchell, 2010; Colton & Manderscheid, 2006). Health consumers with SMI experience unique challenges to physical health, such as increased body fat gains as a result of anti-psychotic treatment (Schwartz, Nihalani, Jindal, Virk, & Jones, 2004), reduced access to services due to lack of affordability, highly divided and poor co-ordination of health care services, and the stigma associated with mental illness (Robson & Gray, 2007), as well as a high prevalence of unhealthy lifestyle behaviours (Scott & Happell, 2011). Health services have the potential to address and reduce many of these barriers to physical health but improvements in approaches to care are required to achieve this (Lawrence & Kisely, 2010).

One unhealthy lifestyle behaviour prevalent amongst people with SMI is lack of physical activity. Population studies report lower levels of physical activity in people with SMI compared to non-SMI groups (Davidson et al., 2001). This is of concern as physical activity is strongly established to be an important strategy in the prevention and management of physical illnesses such as cardiovascular disease (CVD) and diabetes (US Department of Health and Human Services, DHHS 2008; Wannamethee, Shaper, & Walker, 1998) two common comorbidities amongst people with SMI (De Hert et al., 2011). Health services therefore need to consider promotion of physical activity amongst people with SMI in order to reduce the impact and costs of these comorbidities.

There is clear evidence of benefits of physical activity on physical wellbeing, and there is also some evidence of the positive role of physical activity on mental health and wellbeing. Physical activity may be important both for mental health and quality of life (Berger & Motl, 2001; Penedo & Dahn, 2005; Schuch, Vasconcelos-Moreno, & Fleck, 2011), and for the management of mental illness (Acil, Dogan, & Dogan, 2008; Dunn, Trivedi, Kampert, Clark, & Chambliss, 2005; Searle et al., 2011). A review by the DHHS (2008) of prospective and randomised controlled investigations of samples from the general population found that physical activity is effective in symptom management of depression and anxiety

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disorders. Randomised controlled trials suggest some benefits of activity for psychiatric symptom management (e.g. Richardson et al., 2005), and qualitative studies report positive feedback by consumers such as social connection (Crone, Smith, & Gough, 2005; Fogarty & Happell, 2005; Hodgson, McCulloch, & Fox, 2011), although a recent Cochrane review demonstrated that in respect of lasting improvements in depressive symptoms there is insufficient evidence supporting exercise interventions (Mead et al., 2009). Clinical guidelines (National Institute for Health and Clinical Excellence, NICE 2009) and standards (McGorry, 2005b) do in fact include physical activity for management of mental illness but physical activity education, programs and promotion through activity groups for people with SMI is inconsistent and occasionally absent (McCloughen & Foster, 2011).

While the evidence-base for the degree and longevity of the benefits of physical activity for mental illness management (or mental health promotion) in consumers with SMI may be open to some questions (see also Gillison, Skevington, Sato, Standage, & Evangelidou, 2009), the clear demonstration of physical activity for physical health is by itself a good rationale for attention to physical activity in mental health care services (cf. Faulkner & Biddle, 2002) to combat common comorbidities such as CVD and diabetes. The efficacy of physical activity for health is acknowledged and adopted in international health policy (World Health Organisation, WHO 2007). In Australia, physical activity regularly appears in public health policy (Commonwealth of Australia, CoA 2009; National Preventive Health Partnership, NPHP 2005), where active lifestyle is a strategy for improvements in general health and wellbeing, increased psychological health and reduced depression, and improved quality of life and successful ageing (Egger, Donovan, Swinburn, Giles-Corti, & Bull, 1999). Yet there is very little attention, policy or research on physical activity for people with SMI in Australia (for exceptions, see Fogarty & Happell, 2005; Lloyd & Sullivan, 2003). The difference in the promotion of physical activity for physical health benefits between the general population and people with SMI is a clear example of inequity in Australia.

A vital contributor to improving physical health care access and standards for consumers with SMI, involves understanding the viewpoints and roles of professionals in the health care system. Nurses are the most populous group in the health care workforce (Australian Institute of Health and Welfare, 2010) and have the most contact with consumers in both primary and secondary care, suggesting they could play an important role in addressing physical activity for overall health. Recent literature indicates that the nursing profession is recognising this opportunity for action, with dialogue on the role of physical activity in holistic, biopsychosocial and recovery oriented models of care (Happell, Platania-Phung, & Scott, 2011; Park, Usher, & Foster, 2011). Increases in physical activity counselling, education and support have been discussed for nurse practitioners (Buchholz, Purath, & Rittenmeyer, 2009), general nursing, and mental health nursing (Crone, 2007; Faulkner & Biddle, 2002; Howard & Gamble, 2011; Muir-Cochrane, 2006; Wand & Murray, 2008), and a number of physical activity interventions involving mental health consumers have included nurses as part of multi-disciplinary and collaborative teams focused on facilitating physical activity improvements (Lee, Choi, & Kwon, 2008; Lindenmayer, Khan, Wance, Maccabee, & Kaushik, 2009; Littrell, Hilligoss, Kirshner, Petty, & Johnson, 2003; Porsdal et al., 2010; Smith et al., 2007). Nurses are particularly appropriate for this role due to the close bonds and trust developed with consumers which provides unique insight into individual circumstances (Happell et al., 2011). For instance, in mental health care settings, nurses have first-hand awareness of the physical health barriers faced by individual consumers, a sense of their

progress with mental illness management and recovery, and their level of support from friends, family and caregivers (Hardy & Gray, 2010).

Few studies have looked directly at nurse perceptions and views on the benefits of physical activity for mental health consumers and whether promoting physical activity is part of the role of nurses in mental health care settings. Howard and Gamble (2011) examined mental health nurse views of inpatient care for a mental health trust in the UK. When asked about what tasks they viewed to be an aspect of the mental health nurse role, 95% indicated 'assessing physical activity levels', while over 75% indicated 'providing advice' and 'referring patient to gym/physical activity opportunities' (Howard & Gamble, 2011, p.108). Faulkner and Biddle (2002) found mental health nurses in a UK inpatient setting, considered physical activity valuable as a means of diversion and facilitating relationships with inpatient staff, although they were less positive about better health outcomes (such as improved mental health). Verhaeghe, DeMaesener, Maes, van Heeringen, and Annemans (2011) reviewed mental health nurse opinions about physical activity for inpatients in the US and found favourable views on utility of activity for patients but mixed confidence in supporting consumers in their activity endeavours. While there have been some investigations of US and UK mental health nurse views on physical activity for mental health consumers, investigations in Australia, particularly non-metropolitan areas, is sparse.

This article reports on focus group findings of an exploratory study on the views of nurses on physical activity of their consumers in a regional district of Australia, and how physical activity is utilised (or not) within the local mental health care services. The aim of the study was to explore nurses' views on consumer physical activity in the context of consumer physical (and overall health needs) and physical health care in mental health services (both inpatient services and community). This would inform planning of how nurses in regional mental health care can contribute more to physical health of consumers and the place of physical activity in these developments.

2. Method

2.1. Design

A qualitative exploratory study was undertaken to access a broad range of views from nurse participants. This method is considered highly appropriate in areas where there is a paucity of existing research findings (Stebbins, 2001).

2.2. Setting and participants

The setting for this research was a mental health service in a regional and remote district of Australia. The district includes an inpatient unit in a town with over 70,000 residents and three satellite localities that each had community mental health services.

A notice about the study was sent to nurses employed in the mental health services. Nurses were also contacted via email by the nursing director, provided with an information sheet describing study aims, and invited to attend one of a series of focus groups that took place at the mental health service of the main town. All focus groups were conducted in June 2011. To maximise convenience for nurses outside of the main town, video-conferencing facilities were utilised. The entire group of nurses working in the mental health service ($N = 80$) were invited to take part in the study. Of these 38 (48%) provided consent and attended one of the six focus groups. While it would have been desirable to have known the reasons for non-participation by the other nurses invited, for confidentiality purposes the investigators could not inquire beyond the invitation

to participate. Focus group sizes, were seven, ten, nine, two and six, respectively. Eleven (29%) took part in focus groups via live video conference link.

A "nurse demographics" questionnaire was developed by the investigator and completed by all participants prior to focus groups. This questionnaire collected de-identified information on the number of years participants had been a registered nurse, had been employed in any mental health setting, and had been employed at the present site. We also invited participants to report any specialist qualifications or accreditation in mental health nursing, and to indicate whether they currently worked in a community, acute or other mental health setting. Eleven of the nurse participants reported working in community mental health services, while 17 worked in the acute inpatient setting, two reported providing care in both acute and community mental health and the remaining six were involved in 'other' forms of care, such as nurse practitioner. The sample provided a great range of years of employment in the local service: from under one year to 22 years. The duration of mental health service employment (in any location) was between four and 39 years. A similar level of experience in mental health care was observed between acute inpatient (average of 13 years) and community mental health (average of 12 years). Possession of a specialist qualification in mental health was indicated by 20 (56%), and a mental health nurse accreditation by 11 (31%).

2.3. Procedure

The same two interviewers guided all focus groups. The lead interviewer was a registered nurse from a different mental health care area to that of the current setting. The other interviewer was a research fellow with a research training background in public health and the specialisation of exercise sciences (DS). The interviewers were female and male, respectively. Participants had no prior relationships with interviewers, and were provided with information sheets describing the study aims. The information sheet stated only that poor physical health is common in mental health consumers, but that barriers to nurses addressing these needs have not been widely investigated. All focus groups were semi-structured in design. Having a structure permitted comparison of responses across focus groups while providing enough flexibility to explore new directions novel to each focus group discussion. Part of the structured approach was to not inform subsequent focus group by previous focus group topics. Each focus group lasted approximately one hour. At the point of six focus groups the interviewers deemed that there were no longer new themes arising out of interviews (i.e. data saturation), so no further interviews were conducted.

Questions related broadly to the following areas: nurses' immediate views on the physical health of their mental health consumers; lines of responsibility for physical health care of consumers; differences of regional and rural areas to metropolitan areas in access to services; and views on physical screening and assessment of consumers as part of nursing roles. Nurse participants were not asked directly about physical activity. Rather it was to look broadly at physical illness and health and see whether activity was considered by nurses as an important component of physical health. The strength of this approach was to not influence or lead nurse views on physical activity.

Ideally a pilot study of the interview format with nurses from the service would be conducted. However given there was a small pool of potential participants the team did not want to reduce the potential number taking part in the focus groups. While a pilot of the interview did not take place, the format was rigorously considered by the lead interviewer, who is a registered nurse.

2.4. Ethics

The study was reviewed and approved by the research ethics committee of the university and the health service committee of the state health organisation. Prospective participants were presented with an information sheet and provided consent through signing a consent form immediately before the focus group. Potential participants were told that participation in the interviews was voluntary. Confidentiality was assured by assigning identifying numbers in place of names while still allowing the researchers to identify participant backgrounds in the audio recordings and corresponding written transcripts.

2.5. Data analysis

The thematic analysis framework of Braum and Clark (2006) was the guiding basis of the current qualitative data analysis. Given the exploratory nature of the current study, the Braun and Clarke framework is ideal as it allows flexibility (e.g. such as permitting a combination of inductive and deductive analysis) and other means of ensuring in depth consideration of the data. To strengthen the general framework provided by Braum and Clark (2006) the members of the research team (BH, DS, JN and CPP) analysed and discussed the data independently and in pairs in order to maximise rigour.

On the basis of participant consent, focus groups were audio recorded. The digital audio records were converted into text by a transcription service that was independent of the research team and university. Before the main qualitative analysis, transcripts were screened for errors through listening to the audio recording in conjunction with the text. Providing participants with the relevant transcript for checking of content was considered, however the focus groups were conducted on an anonymous basis and so no referral back to the participants took place.

For the initial steps of analysis CPP and JN read transcripts and listened to audio recordings separately. Through this process, both became familiar with the overall content of focus group responses. Then each analyst manually coded their own copies of the transcripts. While attention was given to the overall data (Braum & Clark, 2006), there was additional analysis of text where physical activity (or inactivity) and 'lifestyle' were directly referred to by participants. Once the two researchers coded transcriptions they then jointly discussed their respective codings, identified common interpretations, towards development of themes. A major development at this stage was that when the totality of data was considered a main theme emerged (holism). While the analysis process up to this point was inductive, it became deductive once it was realised that the themes and sub-themes (concerning 'holism') were prevalent concepts in nursing profession as well as in debates around the quality of physical health care of people with SMI. Having developed a thematic framework, CPP and JN then replayed audio recordings to check the manner of expression of participant narratives. To ensure rigour of analysis, and in particular, in the latter (deductive) stages of analysis, the selected quotes were re-examined in the original transcripts to check that they were not taken out of context, and that the thematic structure was evident in data across the focus groups (Braum & Clark, 2006). Exemplar quotations of the sub-themes were presented to DS and BH. DS and BH confirmed that the thematic structure was consistent with their interpretation of the quotes and the larger set of data.

3. Results

3.1. Holism

The overarching theme to emerge from this study was holism. Participants described an ideal health system as holistic in nature,

featuring integrated, collaborative care focussing on all aspects of the person and which fully incorporates physical activity as a strategy to improve physical and mental health outcomes. Physical activity was an important component of this system, having positive benefits for consumers with SMI. Participants described aspects of the health system that impact positively and negatively on the levels of physical activity and its promotion amongst consumers with SMI. One participant recounted a program she had come across in New Zealand that she identified as an example of a holistic approach; *I'm from New Zealand and working in a cultural facility, we would work across the four domains of physical health, spiritual health, family health, and the tinana, which was the mental health. So we would never − and from a cultural perspective we wouldn't work in just a singular way, as is done in often the secondary services* (Intake clinician, focus group 6). Physical activity was integral to this program. Part of this was a program that the participant viewed as a good example of a successful physical activity program. The nurse credited the program for assisting consumers in lifestyle change and weight management through physical activity and food usage: '… *it was actually … a program of exercise, like the person who took it…they continued to have access to the gym, but when she [a staff member who conducted the exercise group] worked intensively with them, she went out and she walked, and they did a gym program, they did a nutrition program, they did cooking lessons… the physical health of people really did start to change … some of these big guys that … found it difficult to move. And they got into the gym, the treadmill, the weights, they went beach walking…it was all a way to find a real change of life and lifestyle.'* (Intake clinician, focus group 6). This depiction seems to capture an overall sense of integration and holism.

From this, we identified the main theme of holism (good systemic conditions for physical activity). The sub-themes were instances of fragmentation (leading to less holism) and integration (more holism) and these themes were explored for how they impacted positively or negatively on the levels of physical activity and its promotion to consumers with SMI. Physical activities were viewed as part of holism, such as addressing the physical and mental health of consumers, and as being positively affected by a holistic system. In contrast, consumer physical activity was considered by participants to be negatively affected by fragmentation of the health system and fragmented delivery of care. These themes will now be described, and illustrated with quotes from participants, including the participant identifier and focus group number. Participant comments provide evidence of how their practice involves them acting to bridge across fragmented systems and how they seek to opportunistically promote physical activity.

3.2. Perceptions of physical health of consumers

To consider the way participants thought about physical activity of consumers we begin with their views on consumer health. In all focus groups the participants described the physical health of their mental health consumers to be generally very poor: '*It seems that quite a lot of our clients that do come in, have got comorbidities, physical problems.*' (Acute inpatient nurse, focus group 1).

Involvement in the physical and not only the mental dimension of health was viewed as important to the role of the health professional and the impact of mental illness on physical health was noted; *…as a health professional we should be taking some interest in the whole person, not just the mental illness. As we have been hearing repeatedly, your physical health can impact and certainly mental illness can impact on your physical health. Drinking coffee, smoking cigarettes all day, lack of activity* (Community nurse, focus group 4).

3.3. Fragmentation

There were a number of barriers identified by participants that caused fragmentation by creating disconnections and inequalities resulting in reduced levels of physical activity in consumers with SMI. Those barriers fall into a number of types: geographic, economic, social, current state of health, and stigma.

Barriers and fragmentation operated at both an individual and a systemic level to affect levels of physical activity. For example, lack of money impacted negatively on the ability of an individual to engage in physical activities and on nurses to promote physical activity to consumers.

Participants stressed that barriers to activity for this consumer group were the same as those for all groups of consumers; physical activity for anyone is not straightforward and there can be barriers reducing physical activity levels. However for consumers with SMI these barriers were exacerbated by their current state of health (physical and mental) and the life conditions common amongst people with SMI. The geographical conditions of this rural and remote region also created barriers to physical activity.

Each of these barriers impacted negatively on engagement with physical activity (fragmentation) and the interaction of these barriers compounded the effect. For example, a person with no money and no car faced greater barriers to accessing physical activity services when there was also the geographical barrier of long distance.

3.3.1. Geographic barriers to physical activity

We include here the barriers to activity noted by participants that were of an environmental kind: long distances involved in rural and remote areas, the climate of the region, and the availability of facilities for physical activities.

The issue of access was particularly salient in this regional area of Australia for geographic reasons; the long distances between towns, the climate (sub-tropical with some extreme weather conditions) and transport issues. Transport was difficult for consumers because of lack of public transport, costs of transport and car ownership being very rare in this group.

The climate was sub-tropical but with variations, including very low temperatures. Participants noted consumers would have difficulties when mornings were colder; '*I think they've found it hard in winter to get people motivated early in the morning. Even 10 o'clock's a bit early for them. So − because it has been colder than usual for us up here.*' (Community nurse, focus group 2).

Extreme weather such as high rain and flooding was not uncommon. In reference to hostile conditions and physical activity, one participant made the point the general health messages did not take into account the geographic environment for people in the region; '*I think that you can do those programs and talk about the importance of exercise, but don't go and send them out there to nothing. Like we've had a flood in [name of town] …that's just gone down in the Botanical Gardens. Up until then there was nowhere to walk in the streets, unless you actually walk on the road, because the Gardens have been flooded for months. And even when you do go down there, you get bitten by mosquitoes, so the message is out on the TV, go and live this healthy lifestyle, but there isn't one to live.*' (Child and youth nurse, focus group 6) For this participant it was insufficient to only provide health messages; this would not be efficacious, or fair, without the environmental supports.

Fragmentation arose from the geography that disconnected consumers from physical activity, whether the long distances (e.g. to an indoor gym) or extreme climate that made outdoor activities very difficult (e.g. flooding). The barrier of geography was exacerbated by economic barriers.

Fragmentation also arose from the lack of connection between geographical requirements of the health messages and the actual geographical environment of consumers.

3.3.2. Economic barriers to physical activity

Participants described a lot of consumers having no money, and living in poverty; '*..they can't access these facilities. And coming into Rocky is not always an option because it's too far to drive. They don't have the money, things like that. So - or may not even have a car.*' (Community nurse, focus group 2) Another participant stated that: '*… most of them are low socio economic status because they're on pensions and that sort of stuff. So they can sometimes not have access to a lot of the services that other people have access to and that impacts again… on their physical health.*' (Rural nurse, focus group 5).

On one occasion a participant made explicit reference to shortages in funding and 'doing one's best' to be as holistic as possible in care; *….I think we recognise the need for holistic care-…And we know we all should be doing it, but at the end of the day, you only have so many hours and we've got X amount of consumers, and you do the best you have − can, with what you have available.* (Community nurse, focus group 1) This quote reflects a typical description by participants of shortages and given those shortages, the need to prioritise. In this case prioritisation was on symptom management, crisis containment and adherence to medication.

It was common for participants to argue that they were not positioned well to meet the physical needs due to shortages in resources and how funding is allocated and rationalised; *We're auspiced to look after mental health issues. Are we getting…funded for physical health issues as well? And we're not, so we get minute funding as it is. Yet we're supposed to now provide holistic care that people aren't trained for….You have people of varying levels of skill, ability and identification…. They might come here because this is where they come for their mental health stuff, but we're not actually geared to deliver physical health needs.* (Nurse practitioner, focus group 2) Here there were multiple forms of fragmentation: shortage of funding, gaps between needs and what was available in a service setting and gaps between ideal care models and human resources.

3.3.3. State of health as a barrier to physical activity

Physical health problems and associated discomfort was also seen as a barrier for some consumers; '*It's difficult, so − because he's not in a lot of pain, but it's − its discomfort and we believe it's actually affecting his mental state because he's − you know, can't exercise, he's − as I say he's in so much discomfort all the time. So − yeah it is affecting his long-term health.*' (Community nurse, focus group 2).

Physical activity and other preventative health measures are not priorities when mental health issues are live; '*a lot of the times they feel they have enough to cope with the mental health issues without even bothering to concern themselves about how they are physically …*' (Acute inpatient nurse, focus group 1).

3.3.4. Stigma as a barrier to physical activity

Participants also raised stigma as a general issue for consumers. For instance, the reluctance of some health professionals to see consumers for physical health issues when requested by nurses was attributed to stigma by some; '*I think there's that stigma that − I think it would be wonderful if we could have our own dietician, diabetic educator and exercise physiologist.*' (Community nurse, focus group 1) The participant's desire for support from other health professionals, including specifically for exercise, despite potential stigma is also reflected in this quote. However, the same participant seemed to have pessimism about change, based on this follow up statement; '*I don't think I'll be here when it happens…but that would be wonderful.*' (Community nurse, focus group 1) This example illustrates the fragmentation, or lack of connections, between the general community of health professionals and this consumer group.

3.4. Integration

Despite the identified barriers, physical activity was viewed as important to consumer health (as part of a holistic view). Even though nurses and their health care collaborators had a difficult health care environment they attempted to increase holism and holistic care by integrating physical activity into care through providing education and motivation for consumers.

Participants were generally not directly involved in provision of physical activity programs, but described other staff that were. Participants stated that the local mental health services encouraged physical activity in a range of ways such as swimming, walking groups and gym.

It is here that they described efforts by staff to support consumers in lifestyle changes despite what they perceived as low motivation in consumers; '*...part of their symptomatology is that … it is very difficult to motivate them and get them to exercise, and you can talk till you're blue in the face and sometimes they just won't engage with it. I mean, we have had walking groups and swimming groups and you might get four or five people go despite, case managers wanting to pick them up and take them home … It's just really, really hard. Case managers work really hard to try and work with the clients; to encourage a healthy lifestyle.*' (community nurse, focus group 4) Although there was fragmentation between the interest levels in physical activity between the health professionals and the amotivated consumers, participants and other staff tried to bridge that gap by motivating consumers.

Participants were attuned to individual consumer overall circumstances (such as mental states, and supports in the consumers' home or community access). Comments suggested participants appreciated consumers as individuals (an instance of holism), for instance; '*…consumers who are keen, they are doing it [healthy lifestyle, e.g. exercise]. And who are not keen….it's depend[s] on personality.*' (Acute inpatient nurse, focus group 2) This detailed knowledge may assist participants to be effective in bridging gaps experienced by individual consumers.

The role of nurses in terms of increasing physical activity was mainly health education and motivation, such as providing information on the risks of inactivity, encouraging more physical activity and other lifestyle changes; '*…as a clinician we always are giving them a bit of psycho education for develop a healthy lifestyle − to have a deep exercising, and deep breathing exercising and have a good eating, stop drinking, like stop smoking, that sort of normal sort of stuff which is a major issue for the mental health people.*' (Acute inpatient nurse, focus group 2). However participants regularly described commonly occurring circumstances that prevented them meeting these roles, e.g. the high demands of everyday practice, shortages of staff and unpredictable occurrences of crises that needed to be managed. Under these conditions, education and motivation could not be conducted in a structured and considered way but still participants made the most of whatever chances arose to convey a message of the importance of physical activity; '*A lot of it is opportunist education though, isn't it. You know, you might be talking to someone about, particularly for case managed clients; it might be alcohol consumption, exercise or smoking, not just to give a lecture as such, but to take that opportunity when it comes up, which we tend to do a lot.*' (Community nurse, focus group 4).

Taking on information and lifestyle change was viewed as difficult for consumers with SMI. To counter this health messages were perceived to be in need of repetition and constant communication, a gentle persuasion approach. Also, messages had to be

targeted and made relevant to the stage of recovery and circumstances of the individual consumer. This approach reduces fragmentation between the message and the consumer;'*I think it's consistency too isn't it … if they are given the information when they're an inpatient. And then it's given again when they come out because they might have been too unwell when they were in the unit to take everything on board and it's just about repetition and, … trying to find some way to get them a buy in what's in it for them.*' (Community nurse, focus group 4).

Another instance of holism was the participant's view that repetition and persuasion needed to go beyond specific roles and places, to be present across the health care system. In terms of this participants felt that they were supported and in harmony with what their colleagues from other professions and settings were doing; '*… I've been in for many, many years with the doctor saying you must be very careful here with your weight. You really need to exercise; you really need to eat correctly.*' (Acute inpatient nurse, focus group 4).

Health professionals and other sectors were also involved in promoting physical activity alongside nurses; '*And then you look at the physical activity. Well I mean the OTs (occupational therapists) are − yeah, they're getting into that side of it. They're … the ones that are sort of behind a lot of our groups that we run.*' (Community nurse, focus group 1) The sense of support around physical activity promotion also seemed to generalise to other collaborative activity in providing supports to consumers; '*I think we're pretty good at health promotion and, you know, involving other agencies. And because quite often we need their help anyway for accommodation and various different services that are available in the community.*' (MHN, focus group 1) In this case, holism was in the form of inter-sector co-ordination to meet the multiple needs of consumers and making the most of resources despite their short supply.

In another sense holism was manifested in terms of the 'whole person' in relation to the consumer with SMI being in tune with the community (their health care service or town).

In contrast, transience of programs was an issue identified by participants. Lifestyle programs would spark up but disappear and so not be effective at supporting lifestyle change in the longer term. As one participant put it, it was '*flavour of the month at times*' (Community nurse, focus group 4). The transience of programs was put down to multiple and interacting forms of fragmentation (the splitting of services into physical and mental, changing priorities, the lack of targeting to consumers with SMI, exit and re-entry of key personnel behind a program and funding shortages); '*The Healthy Lifestyle Program was run for a while and then staff changed so that dropped off. And then the district had one but it's not mental health specific, so it thought that didn't quite fit with most of the mental health concerns. So those things have been trialled and implemented to some part, but − as most programs − it depends on the personnel rather than the program, so if you've got people who are enthusiastic and see that as a priority, they … run with that program. Once people change, and they do, the priorities change. The service priorities change as well.*' (MHN Nurse practitioner, focus group 2).

In contrast to this fragmentation, the case of the program in New Zealand seemed to represent a process of integration, that included challenging stigma; '*They* [consumers] *didn't feel segregated. They actually felt that they owned … some of the women and men that were particularly large, actually felt more empowered going to the gym...*' (Intake clinician, focus group 6) and '*It … bridged that gap between getting back into community things, but lifting people's confidence so….people came for sport days and they had sport every week, and yeah, cooking*' (Intake clinician, focus group 6).

4. Discussion

The current study investigated nurse views on the physical health of mental health consumers and the place of physical activity in mental health care service provision. The purpose of such an investigation was to explore how nurses in mental health care can fulfil an important role in collaboration with the multi-disciplinary team to further support consumer physical health through the promotion of physical activity.

Holism emerged as the main theme from analysis of focus group interviews, and physical activity was integral to their holistic view (e.g. as important to physical and mental health). However physical activity of consumers was inhibited by great fragmentation that manifested in terms of community, health care services, consumer life situations, health communication and geographical environment. Despite diverse fragmentation, nurses and other health professionals sought to counter this by way of integration of care, and most notably, through health education. However, the overall level and diversity of fragmentation was too significant to be overturned by health education alone. Therefore, it was unlikely that staff and consumers could sustain attention on and engagement in physical activity.

4.1. Holism, fragmentation and attempts at integration

It was not surprising that holism emerged as the main theme as holism is a major value or principle in nursing. While the meaning of 'holism' in nursing varies (McEvoy & Duffy, 2008; Povlsen & Borup, 2011), in the current study it was the notion of overall health of the person, supported by a whole system. Nurses viewed physical and mental health as inter-connected, and physical activity as a way of managing common physical health problems, such as diabetes, cardiovascular disease, and metabolic syndrome. One participant argued that their health care practices 'should be' holistic, which meant taking into account the consumers overall health, but all of the focus groups described a large divergence from this ideal.

Barriers to physical activity were found to flow from fragmentation of the health care system. The barriers raised by nurses were very consistent with the literature on physical health issues in mental health care: tight funding and resources (McGorry, 2005a); physical health problems associated with second generation anti-psychotic medication (De Hert, Schreurs, Vancampfort, & van Winkel, 2009); difficulties of lifestyle adjustment due to the mental illness and anti-psychotic treatment (Hodgson et al., 2011; Roberts & Bailey, 2011); work priorities and lack of time to give more attention to physical activity guidance (e.g. Buchholz et al., 2009); fragmentation in service structures and roles (Henderson & Battams, 2011; Horvitz-Lennon, Kilbourne, & Pincus, 2006); accessibility of facilities, services and the need for transportation (Henderson & Battams, 2011), and social isolation and stigma (Hodgson et al., 2011).

Weather was influential where transport was limited, and outdoor areas were relied on for physical activity, such as walking. In addition, in the year this study was conducted there were major challenges for the region in terms of natural disasters such as major flooding and a cyclone. One nurse reported flooding as a barrier to activity and a healthy lifestyle in general. While variation in weather is documented as a correlate of activity levels (Tucker & Gulliland, 2007), extreme weather events are important to take into account as a barrier given they can lead to long-term non-conduciveness to activity (e.g. aftermath of flooding) and particularly in regional and rural areas where they may have a significant impact on mental health (Morrissey & Reser, 2007).

Nurse efforts to counteract fragmentation was best exemplified by their commitment to health education; they stressed the importance of reinforcing the message that 'physical activity is good for your health'. Nurse vigilance for opportunities to reinforce lifestyle messages despite fragmentation was also much in concert with other staff, such as GPs (i.e. an aspect of more integration). It has been argued that mental health care staff make the most of health education opportunities (such as talking about physical activity) (Hardy, White, Deane, & Gray, 2011) and the nurses in this study appeared to do this.

4.2. Implications: policy and nursing practice development

We caution against suggesting that the current findings would apply to mental health service settings in other parts of Queensland and Australia, or internationally. Australia has a vast range of health care settings and service governance is decentralised (Duckett, 2007); level of attention to, and actual achievement of physical activity is likely to range markedly. At the same time, in terms of literature, in Australia overall there does seem to be a neglect of physical activity as a means of improving physical health of consumers with SMI. This raises questions about policy as an avenue for directing resources and practice. Participants rarely mentioned policy, and this is yet another instance of fragmentation. Given that public policy in Australia is saturated with reference to physical activity (CoA, 2009; NPHP, 2005; see Bull, Bauman, Bellew, & Brown, 2004 for 21 relevant policies), the absence of policy as a reference point for nurses suggests that physical activity is neglected for particular groups (such as consumers with SMI) and that broad policy on physical activity may not be seen by staff as relevant (or applicable) in everyday health practice. Generic government policy and guidelines may need to be tailored more to take into account divergences in economic and environmental circumstances, and differences between metropolitan and non-metropolitan (regional and remote) areas, such as the extreme weather conditions discussed earlier. Therefore policy development should concentrate on how global goals such as attention to both physical and mental health care can be implemented in local services, such as through promotion of physical activity.

Towards this we suggest three inter-related approaches to nursing practice development that go beyond the current role of nurses as providing health education The approaches were borne out of considering the current themes (holism, fragmentation, integration) in conjunction with physical activity strategies in the literature (e.g. Fogarty & Happell, 2005; Hodgson et al., 2011). These three approaches are − (1) facilitating consumer participation through alignment of consumer differences with physical activity supports, (2) participating in physical activity alongside consumers, and (3) establishing new roles such as cardiovascular mental health nurse. These integrative approaches appear to be complementary to, and do not derogate from the existing educative role of nurses in the current study.

The first approach is to align the key operating factors that facilitate consumer participation in physical activity − consumer differences and available infrastructure (e.g. physical activity staff, facilities in mental health care services and the wider community) (Hodgson et al., 2011). It is suggested that tailoring an activity program to differences to boost efficacy (Buchholz et al., 2009; Fogarty & Happell, 2005; McDevitt, Snyder, Miller, & Wilbur, 2006; Richardson et al., 2005) is an aspect of holistic care that nurses can further develop (Povlsen & Borup, 2011). Given the importance of aligning aspects of a program to the individual consumer or consumer group, the awareness nurses have of the consumer's life and position with respect to mental illness (demonstrated in this study) makes them an important part of the process of encouraging

physical activity. Indeed, several commentators have discussed this important first-hand knowledge of nurses and their subsequent opportunity for a role in physical activity (Faulkner & Biddle, 2002; Howard & Gamble, 2011; Muir-Cochrane, 2006).

The second approach is direct involvement of nurses with consumers, in the sense of 'being with' consumers during their physical activity. For instance, mental health nursing is often around shared everyday activities, such as walking, and can be combined with other activities. A qualitative study by Shiner, Whitley, van Citters, Pratt, and Bartels (2008) found that consumers value the presence of a nurse during their physical activity, often with the nurse as an activity partner. Additionally, the presence of other consumers in group walking activities has been demonstrated to provide perceived psychosocial benefits for persons with SMI (Crone, 2007). Although lack of social support was not stated by nurses explicitly as a barrier for consumers, nurses did describe social isolation and lack of social support − common barriers to general population physical activity (Hawkley, Thisted, & Cacioppo, 2009; Kaplan, Newson, McFarland, & Lu, 2001; Lindstrom, Hanson, & Ostergren, 2001). Others stress the importance of physical activity itself as a means of garnering social supports and connection (Carless & Douglas, 2008). Nurses accompanying consumers in physical activity would service more directly as a source of social support in physical activity endeavours of the consumer.

The third approach is to incorporate physical activity promotion into nursing roles under development for mental health care, such as the 'cardiovascular mental health nurse' (Brunero & Lamont, 2009). This would involve identification, monitoring and consultation-liaison of physical health with consumers, and in particular, cardiometabolic problems (Brunero & Lamont, 2009). The centeredness of physical activity in prevention and management of cardiometabolic illnesses (USDHHS, 2008) suggests that physical activity would be appropriate for such a nursing role. Part of the cardiovascular mental health nurse role could be: (a) guiding how physical activity fits with the overall recovery and health process of individual consumers (i.e. ensure more holism of consumer care in the mental health setting), (b) co-ordinating inter-professional collaboration on physical activity to ensure health professional specialisations (such as exercise physiologist) are utilised to maximise the benefit of physical activity for consumers, and (c) provide on-the-job training to nurses so that they can develop competencies beyond health education.

Nurses can have favourable attitudes and good intentions in intervening on consumer overall health through physical activity but competencies and training are required also. It is notable here that physical activity does not figure much in preparation of nurses, especially with respect to health promotion (as distinguished from health education) (Whitehead, 2007). Education and training for currently practicing nurses is also neglected, whether it be lifestyle or physical health care in general (Hardy et al., 2011). As previously proposed, the cardiovascular mental health nurse could be a source of learning on how other nurses in mental health care can promote physical activity.

5. Conclusion

This study addresses a highly neglected research area: nurse views on the physical activity of mental health consumers in a regional health care context. Nurses thought about physical activity in terms of holism and their sense of holistic care, especially as their consumers commonly had a combination of physical and mental health problems. However fragmentation (in consumers due to SMI, and in health care and community systems) impeded their own interests in comprehensively contributing to lifestyle

promotion. Nurses can contribute to improving physical health of consumers with SMI through a holistic perspective to practice, policy and research.

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