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Abstract

**Background:** Poor diet is a contributing factor to the high rates of obesity and related comorbidities in people with severe mental illness and dietary change is a key treatment strategy. Providing healthy lifestyle interventions is a recognised role for occupational therapists. The existing literature however fails to elucidate boundaries of this role. In order to begin to address this gap in the literature, this study explored the attitudes, actions and beliefs of mental health occupational therapists about providing diet-related interventions.

**Methods:** Semi-structured interviews were conducted with mental health occupational therapists working in one Area Health Service in New South Wales. Purposive sampling was used. Data were analysed using Constructivist Grounded Theory methods where meaning is co-constructed by, and the theory ultimately grounded in the experiences of, the participant and researcher. **Results:** The participants felt confident providing clients with interventions to promote diet-related skill development and providing general healthy eating education to support this development. They were not however comfortable providing clients with specific dietary advice. Participants identified a need for further training and support to enhance their effectiveness in providing healthy eating education and highlighted the need for more dietitians in mental health services. **Conclusions:** The occupational therapists in this study identified clear boundaries of their role in providing diet related interventions for people with severe mental illness. Suggestions for improvement in this area included further training for occupational therapists as well as increased access to dietitians for those services that lie outside the occupational therapy role.

*Key words:* diet, life style, mental disorders, occupational therapy, qualitative research
How mental health occupational therapists address issues of diet with their clients: a qualitative study

Introduction

People with severe mental illness consume diets that are less healthy than those consumed by the general population. Brown, Birtwistle, Roe and Thompson (1999) and Davidson et al. (2001) found people with schizophrenia consume more saturated fat and salt, and less dietary fibre compared to people in the general population. People with a severe mental illness are more likely to have poor eating habits and skills such as difficulties sourcing and preparing meals, eating insufficient nutritious food and eating alone (Kilbourne et al., 2007). Poor diet and eating habits, along with other factors, contribute to the elevated rates of obesity for people with severe mental illness compared to the general population. People with severe mental illness are eight times more likely to be obese than the general population (Davidson, et al., 2001), and have a mortality rate that is two to two-and-a-half times that of the general population (Lawrence, Jablensky, Holman, & Pinder, 2000). Symptoms of mental illnesses such as apathy, amotivation, self-neglect and increased appetite are thought to create barriers for maintaining a healthy body weight (Brown, et al., 1999; Wallace & Tennant, 1998). Inherent social disadvantages encountered by people with severe mental illness may be compounded by obesity (Fagiolini, Kupfer, Houck, Novick, & Frank, 2003). Obesity can decrease a person’s self-esteem and ability to participate in desired daily activities; affecting quality of life and resulting in poorer mental health outcomes (Kawachi, 1999). In addition, many mood stabilising and antipsychotic medications prescribed for people with severe mental illness cause weight gain (De Hert et al., 2008; Fagiolini, et al., 2003), with reduced metabolic rate a contributing factor (Sharpe, Stedman, Byrne, & Hills, 2010).
Evidently there is a need to provide interventions to improve dietary intake and related skills for people with severe mental illness. Bassett et al., (2003) stated that dietary practices are a component of daily living tasks, thus these activities are situated within the occupational therapy domain of practice. A literature search of published interventions identified eight peer reviewed journal articles demonstrating occupational therapists are involved in providing diet related interventions for people with severe mental illness (table one). However the extent to which occupational therapists address diet in their practice with people with severe mental illness and the boundaries of the occupational therapy role in the provision of nutrition advice remain unclear.

**Insert Table 1 about here**

For the purpose of this paper the authors have defined two separate interventions relating to nutritional information. “Healthy eating education” guides clients to consume a health promoting diet based on recommended intake of different food groups. “Dietary advice” is the proposal of a specific diet for a therapeutic purpose such as weight loss. The more general term of “nutritional information” is used in Table 1 and throughout the paper, when it was unclear whether “healthy eating education” or “dietary advice” was provided. The authors also define the intervention of “skills development” as the learning or development of skills related to selecting and preparing food.
The diet-related interventions with occupational therapy involvement were largely conducted in a group format (Bassett, et al., 2003; Brown, Goetz, Van Sciver, Sullivan, & Hamera, 2006; Eaton, 2002; Lloyd & Samra, 1996; Lloyd & Sullivan, 2003; McDougall, 1992; Merriman, Riddell, & Thrush, 1995). The occupational therapists were usually part of a multidisciplinary team delivering these interventions (Brown, et al., 2006; Eaton, 2002; Lloyd & Sullivan, 2003; McDougall, 1992; Merriman, et al., 1995). Occupational therapists used practical interventions such as cooking, shopping and budgeting to develop diet-related skills (Bassett, et al., 2003; Brown, et al., 2006; Lloyd & Samra, 1996; Lloyd & Sullivan, 2003; McDougall, 1992; Porter, Capra, & Watson, 2000). However, nutritional information is only one component of these programmes and the extent to which occupational therapists are involved with the delivery of nutritional information is consistently unclear (Brown, et al., 2006; Eaton, 2002; Lloyd & Samra, 1996; Lloyd & Sullivan, 2003; McDougall, 1992; Merriman, et al., 1995).

The literature search revealed insufficient detail of occupational therapists’ diet-related interventions with clients, specifically in terms of how occupational therapists set goals; where they source nutritional information; and the extent to which occupational therapists perceive diet-related interventions as part of their role. No qualitative studies were found regarding occupational therapists’ experiences and thoughts about addressing diet-related issues. This study aimed to explore how mental health occupational therapists address issues of diet with their clients using qualitative enquiry. Clarification of present practices used by a group of occupational therapists working in mental health will enhance the literature on occupational therapy practice and provide a foundation for further research and development in this area.
Method

Methodology

Constructivist Grounded Theory (Charmaz, 2000) is the qualitative research approach used in this study. Meaning is co-constructed between participants and researcher and the theory is ultimately grounded in the experiences of the participant and researcher evident in the data (Mills, Bonner, & Francis, 2006). Constructivist Grounded Theory is appropriate for addressing the abovementioned gaps in the literature, by commencing research and proposing theory in a previously unexplored area (Freeman, McWilliam, MacKinnon, DeLuca, & Rappolt, 2009).

Interview guide

A semi-structured interview guide was developed based on the literature review. Questions addressed the nature of the therapists’ client group, the diet-related interventions they provide, how they inform themselves in order to provide these interventions, how prepared and comfortable they feel providing them and how they construct this as part of their role. Questions were pilot-tested on the second author and an occupational therapy student who had recently undertaken a placement in a mental health setting.

Sampling

Purposive sampling was employed, whereby potential participants are invited to participate based on their experience of the issue under investigation (Barker, Kinsella, &
Occupational therapists with current clinical experience in providing diet-related interventions to clients in mental health services within one Area Health Service in New South Wales were invited to participate in the study. Participants were recruited through the lead occupational therapist for the area health service. The study was approved by the University of Newcastle Human Research Ethics Committee and the relevant area health service ethics committee (10/05/19/5.09). All participants provided written, informed consent to participate in the study.

**Data collection**

Interviews were conducted by the first author and were typically 30-40 minutes in duration. The location and time of the interviews were chosen by the participants. The interviews were audio recorded and transcribed verbatim. Transcripts were de-identified using participant selected pseudonyms. As part of member checking, participants were provided with their transcripts in order to make corrections or add or remove data. Interviews continued until theoretical saturation was achieved. Additional data were collected through a second stage of member checking where participants were invited to make comment on emerging theoretical concepts sent via e-mail.

**Data analysis**

In Grounded Theory, research data collection and analysis occur simultaneously (Charmaz, 2000). Subsequent to each interview, open line-by-line coding was conducted, and initial ideas, reflections and discussions among the three researchers influenced the content of the guide for succeeding interviews. Selective coding was then utilised to elicit the most
significant and reoccurring codes in order to form categories (Charmaz, 2000). The process of constant comparison (Charmaz, 2000) was used to compare codes to each other, the data and emerging theoretical concepts. The participants’ comments on the emerging theoretical concepts were included in the analysis and contributed to further development and refinement of these concepts. Memos were used to record the researchers’ reasoning during the data collection and analysis process to explore the transformation from categorisation to conceptual analysis and theoretical development (Charmaz, 2000). Direct quotes were utilised to link theoretical concepts to the data. The QSR International’s qualitative research software package, NVivo 8 (2009) was used to manage the data.

**Rigour**

Rigour was ensured through purposive sampling, member checking, maintenance of an audit trail and student supervision. A journal that accounted for all analytical and methodological decisions was kept and reviewed by all authors.

**Results and Discussion**

**Participants**

From a potential 45 occupational therapists working in mental health in the geographical area, seven responded to the invitation to participate. One person did not meet the specified criteria for clinical practice in mental health. Six occupational therapists (5F:1M) were interviewed. Five had worked in mental health for up to 6 years, and one other had 32 years of experience. Four occupational therapists worked in community psychiatric rehabilitation, one in an acute inpatient unit, and another one in an acute inpatient unit as well as acute
community mental health unit. To enhance the description of data into theory, the discussion has been presented with the results.

**Theoretical Concepts**

Six major theoretical concepts emerged from the data as described below, which are supported by verbatim quotes from participants using pseudonyms. Collaboratively, these concepts form a theory of participants’ attitudes, actions and beliefs informing the construction of their role in providing diet-related interventions. Figure 1 illustrates the interrelationships between the concepts.

**Occupational therapists provide interventions for clients who have issues performing occupations related to managing their diet.**

Participants described a holistic approach resulting in consideration of the physical as well as mental health of their clients.

...we’re looking at a person holistically...that background makes us the person concerned about their physical health as well... – Jane

They reported client-centeredness guided them to address diet-related goals with their clients.

... looking at goal setting with people for their recovery journey...if it comes up as part of the goals then definitely... that’s your invitation to talk more about that [diet].

– Susie

Obesity was identified by the participants as an issue for their clients with poor diet a contributing factor.
...lots of our clients have issues with their weight and physical health... some of those issues centre around a poor diet... – James

Participants reported the challenges to maintaining a healthy diet were not due to clients’ lack of knowledge.

... it’s not that they don’t know the information...there’s barriers for them in, like all of us...using that information in their lives. - Jane

Bassett, et al. (2003) argued an increase in nutritional knowledge does not necessarily create healthy eating behaviours for clients with severe mental illness. The participants observed that skills deficits and or motivational issues prevented the application of nutritional knowledge into daily life.

...a lot of our clients aren’t very skilled in cooking or have reduced motivation to actually perform those tasks on a daily basis – James

Kilbourne, et al. (2007) found people with severe mental illness may face challenges sourcing and preparing meals. As highlighted by Jame’s quote and Brown, et al. (1999) motivational issues can also create a barrier affecting the ability to manage diet.

**Clients need to improve diet as part of a healthy lifestyle.**

Rather than delivering diet-related interventions as an isolated strategy, participants addressed diet in the context of holistic healthy lifestyle group programmes, often alongside physical activity facilitation.

...a group intervention, which is focused on healthy lifestyles...that covers areas of physical activity, diet... – James
Some of the programmes in the literature review also coupled diet-related interventions with physical activity facilitation (Brown, et al., 2006; Lloyd & Samra, 1996; Lloyd & Sullivan, 2003; Merriman, et al., 1995). These authors agreed on benefits of group work for diet-related interventions such as social support, encouragement and interaction and group goal setting (Bassett, et al., 2003; Brown, et al., 2006; Eaton, 2002; Lloyd & Samra, 1996; Lloyd & Sullivan, 2003).

Study participants facilitated multi-professional groups, utilising psychologists, nurses or dietitians when available.

...we actually have a [dietitian] come and have a chat about portion sizes. – Sally

**Improving diet through skill development.**

The participants felt most comfortable focussing on skill development relevant to the occupations supportive of maintaining a healthy diet such as shopping, budgeting, cooking and meal planning.

...try and provide a skills focus ...how do you select, how do you plan...prepare...

healthy meals over the week - James

They provided examples of specific skills developed in their interventions.

...we’re going to do a component on the nutritional information panels and go to the supermarket, so we can practice what we’ve learned. - Natalie

The focus on practical application of knowledge in their interventions was emphasised by the participants.
..try and keep the information short and do more of a ‘doing’...I think that’s the best way for people to take on the information in mental health. – Natalie

Eaton (2002) argues a focus on occupational performance is fundamental to the occupational therapy role and Mosley, Jedlicka, LeQuieu and Taylor (2008) propose obesity can be addressed by occupational therapists through improving the skills needed to maintain a healthy diet. This literature provides insight into the role of the occupational therapist as a skill developer; however the healthy eating educator role is less obvious.

**Occupational therapists can advise on healthy eating but are not experts on dietary advice.**

The participants facilitated healthy eating education as part of healthy lifestyle interventions, with the aim to support performance in diet-related activities.

...it’s just about providing that foundation of knowledge that they can build on. – Natalie

Similarly, authors in the literature suggested healthy eating education enhances performance in diet-related occupations (Lloyd & Samra, 1996; McDougall, 1992).

The healthy eating education provided by the participants is usually described as “basic”.

*I’m not able to give much specialised [dietary] information...I...talk to them about basic things...the general principles around fruit and veg, low fat, reading information labels* - James

Some articles in the literature described the provision of healthy eating education (Bassett, et al., 2003; Brown, et al., 2006; Lloyd & Sullivan, 2003). However, most authors did not
elucidate details of the nutritional information provided by occupational therapists (Lloyd & Samra, 1996), and if and how this was influenced by the presence of a dietitian (Eaton, 2002; McDougall, 1992; Merriman, et al., 1995).

This study provided insight into the healthy eating education the participants’ felt comfortable providing, including information on recommended intake of food groups and portion sizes.

...we had these different laminated foods [pictures]...and talked about portion size and some very basic education around diet... - Susie

The occupational therapists in this study consistently identified limits to their expertise in providing dietary advice.

...certainly in my role I’m not an expert in the dietary aspect of it - Susie

Further emphasis on this role boundary is evidenced by the participant’s discomfort in providing advice to clients with specific dietary needs, such as diabetes.

...I’m not equipped to deal with diabetes...I wouldn’t advise a person on an eating plan ...That...would be a dietitian’s domain - Grace

This delineation of professional role has not been presented with clarity in the existing literature. In the programme described as utilising a dietitian it was not apparent where their role intersected with the occupational therapist’s (Eaton, 2002; Merriman, et al., 1995). This study found participants made referrals to dietitians when they felt a client required dietary assistance beyond their perceived role boundary. After referral, the participants viewed their role as providing continued support for the client, facilitating goal setting and skill development in applying this dietary advice in their everyday lives.
...encouraging them to...meet with other specialists... dietitians... I recognise as an OT [occupational therapist] that’s not my core business or specialty...But certainly supporting people with the practical ways they can implement what they’re learning - Susie

**Preparedness for healthy eating education delivery.**

In order to provide healthy eating education, the participants drew on varied experiences and resources. Tertiary education prepared participants to be comfortable information providers and group facilitators.

...the OT degree certainly gives you the confidence to present information...through group or individual. - Susie

Participants sourced reliable and recent, healthy eating information for inclusion in interventions.

...the OT course provided me with the skills to be able to access information and educate myself around what I need to know to talk to clients. – James

They utilised professional literature, information from dietitians and pre-existing healthy lifestyles programmes.

... we have looked at...[articles] that are related to informing people on diet... – Susie

The only authors in the literature review to describe resources used by occupational therapists were Bassett et al. (2003) and Lloyd and Sullivan (2003). These occupational therapists used the ‘Australian’ healthy diet pyramid† to guide recommended intake of different food types and the proportion of the client’s budget to be spent on each food group. Some participants in
this study had attended continuing professional development regarding the physical health of mental health clients which helped them to deliver healthy eating education.

*I also try and participate in training around...the physical health of mental health clients.* - James

However, those participants who had graduated most recently had not attended such training.

*...we often run these programs but we haven’t had any training in doing them* – Jane

These participants reported a different phenomenon of “picking it up as you go”.

*...at mental health OT forums... there’s been components in the past that have been on providing diet and information to clients ... So you just pick things up as you go* - Natalie

This was indicative of their adaptability and their holistic approach. The participants are actively receptive to details of physical health information that may be useful for their clients in the future.

*If I get an e-mail and it’s about nutrition and mental health, I’ll read it.* – Sally

Despite attending training, and keeping updated with the literature, some participants found this insufficient in supporting their role as healthy diet educators.

*...I’d like the literature to...focus more on what is an effective intervention for changing behaviour around eating and diet... tapping into that motivational aspect so that they can actually change their behaviour and do it consistently...* - James

This issue was further complicated by confusion regarding the profession responsible for providing diet-related interventions and difficulties accessing training.
...the difficulty with healthy lifestyle/diet interventions not being [an] OT specific role, some requests for even free professional development on this area is currently being denied by managers. This ... is an area in which we are not very well supported by not only dietitians but also our managers, yet still we are the ones who are looked to, to provide this intervention. – Natalie

The participants have thus been in the position of providing interventions for which they are inadequately trained. They do it because they appreciate the importance of healthy lifestyle and they are the profession driving the development of these interventions.

...if it wasn’t for me getting a group of people together...coming up with the program then there still wouldn’t be one [healthy lifestyles programme] ... So I think it is left up to OT’s sometimes. - Jane

This scenario may be suggestive of the gaps in mental health service provision identified by the participants.

Gaps in mental health service provision.

A repeated concern of the participants was the limited access to dietitians in mental health services and which they felt influenced their role in providing healthy eating education.

We’re trying to get a dietitian...but that’s not really happening – Natalie

...we don’t often have... access to a dietitian, or we can refer somebody to a dietitian and they might wait months to see them... So it does often fall on us to provide that information. – Sally
Only four of the eight programmes found in the literature involved a dietitian. Eaton (2002) reported guest experts such as dietitians were used throughout the psychoeducation programme, although it is not clearly stated that the dietitian delivered the nutrition session. Similarly in McDougall (1992), the contributions of the dietitian as a nutritional educator were unclear. Merriman et al. (1995) and Brown et al. (2006) involved dietitians as group leaders. In Merriman et al. (1995) the level of nutritional information provided in groups was unclear. In each of the programmes, the role of the occupational therapist during nutritional information sessions and their interactions with the dietitian are not explained.

When a dietitian’s expertise has been available, participants found it helpful for their clients. They stated that they would value increased dietitian presence in the mental health arena.

...it would be really great if we had a dietitian here. I think that would help us to provide a more holistic care and certainly would be easier on clients. – Susie

There is potential for increased collaboration between dietitians and occupational therapists when providing diet-related interventions for clients with severe mental illness. Susie’s quote above exemplifies this how this opportunity was recognised by the participants, and the dearth of published programs that utilised dietitians, emphasises the importance of this finding in the Australian context (Bassett, et al., 2003; Lloyd & Samra, 1996; Lloyd & Sullivan, 2003).

Figure 1 illustrates the interrelationships between the six theoretical concepts. If occupational therapists can continue to provide healthy eating education in the context of supporting the development of diet-related skills then they are enacting the occupational therapy core philosophies of client-centredness, holism and a focus on occupational
performance. The participants knew when a referral to a dietitian was required and how to continue to support a client beyond the referral. The concepts encourage occupational therapists to continue to apply core skills to enable, motivate and mobilise clients in performing occupations beneficial to diet and maintenance of healthy weight. Of concern is the finding that participants have felt unsupported in providing diet-related interventions to meet the needs of their clients. It is a notable gap in service provision that some clients have inadequate access to specialist dietary advice.

In addition to clarifying occupational therapy practice issue, this study highlighted the perceived need for more dietitians, which would support occupational therapy practice in addressing dietary issues. The competencies of Australian entry level dietitians have recently been revised, and universities within Australia are now required to incorporate skills for working with clients with mental health issues into programmes graduating dietitians (Dietitians Association of Australia, 2010). The next generation of dietitians graduating in Australia should thus be better equipped to deliver diet-related interventions collaboratively with occupational therapists in mental health settings. However, this potential will only be realised with a sufficient workforce of dietitians in mental health services.

Insert Figure 1 about here

**Strengths and Limitations**

The strengths of the study are the diversity of the sample with participants bringing varied levels of experience and viewpoints; and the use of designed processes to enhance rigour such as member checking at two separate points; and maintenance of an audit trail.
Limitations include sampling participants from within a single Area Health Service, which may limit the overall transferability of the study. Theoretical sampling was not achieved due to participant response rate and time limitations.

**Practice and Research Implications**

This study provides preliminary theory explaining the thoughts, beliefs and actions of mental health occupational therapists in the provision of diet-related interventions.

This can contribute to occupational therapists’ clinical reasoning when developing diet-related interventions regarding focus and content of programmes, resources to utilise and potential involvement of dietitians. The study provides a foundation for further research. The authors aim to use the findings to develop a national survey of mental health occupational therapists, establishing the nature and prevalence of diet-related interventions offered by occupational therapists.
References


QSR International Pty Ltd. (2009). NVivo qualitative data analysis software (Version 8) [Computer software].


Footnotes

† This has in fact never had the status of a National Food Guide and at the time of publication of their studies there was a national food guide in place known as the AGHE.
Table 1 *Diet-related interventions for people with a severe mental illness involving an occupational therapist*

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Setting</th>
<th>Participants</th>
<th>Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>McDougall, 1992</td>
<td>UK: Day hospital</td>
<td>11 outpatients with chronic schizophrenia</td>
<td>Group programme providing nutrition information and skill development (shopping, cooking). Occupational therapist facilitated shopping and lunch group after nutritional information from dietitian.</td>
</tr>
<tr>
<td>Merriman, Riddell, &amp; Thrush, 1995</td>
<td>UK: Inpatient rehabilitation unit</td>
<td>6 patients with SMI</td>
<td>12 week group programme. MDT (occupational therapist, dietitian, physiotherapist) approach targeting diet, fitness and self-esteem. Occupational therapist provided assertiveness training. Dietitian involved, data not provided on level of nutritional information provided.</td>
</tr>
<tr>
<td>Lloyd &amp; Samra, 1996</td>
<td>Australia: Community Mental health</td>
<td>4-6 participants, primarily had diagnosis of schizophrenia</td>
<td>Group programme providing nutritional information, skill development (cooking, budgeting) physical activity and leisure. Facilitated by occupational therapist.</td>
</tr>
<tr>
<td>Porter, Capra, &amp; Watson, 2000</td>
<td>Australia: Inpatient rehabilitation unit</td>
<td>3 patients with chronic mental illness</td>
<td>Individual programme addressing skill development (shopping, cooking, meal planning, budgeting). Facilitated by occupational therapist. 8 session group programme. MDT (occupational therapist, psychologist, nurse) approach. 1 session on nutritional information. Author stated dietitian involved – no data provided on frequency or type of involvement.</td>
</tr>
<tr>
<td>Eaton, 2002</td>
<td>UK: Women’s only Psychiatric inpatient rehabilitation ward</td>
<td>In-patients</td>
<td>Group programme delivering healthy eating education, skill development (budgeting, cooking, shopping) and physical activity. MDT (occupational therapist, social worker, nurse, personal trainer) approach. No data provided on how occupational therapy involvement differed from other disciplines.</td>
</tr>
<tr>
<td>Brown, Goetz, Van Sciver, Sullivan, &amp; Hamera, 2006</td>
<td>USA: Community Mental health</td>
<td>21 participants with SMI</td>
<td>Group programme providing healthy eating education, dietary advice, skill development (cooking, shopping) and physical activity. Occupational therapist was 1 of 3 group leaders. Dietitian developed individualised weight loss diets and co-led group. Information was not provided on the occupational therapist’s or dietitian’s contribution to group.</td>
</tr>
</tbody>
</table>

MDT = Multidisciplinary team, SMI = severe mental illness
Figure 1

The process for mental health occupational therapists addressing issues of diet with their clients

Client identifies occupational performance issue related to managing their diet

Addressing diet as part of a healthy lifestyle

Preparedness for healthy eating education

Occupational therapists are not experts on diet

Refer to dietitian

Healthy eating education

Improving diet through skill development

Gaps in service provision