

An exploration into the role of occupational therapists in the provision of dietary interventions for adults with a mental health condition

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This evidence-based review has been prepared by masters-entry students as part of Occupational Therapy Field Practice 4 at the University of South Australia. Due to limitations of assignment requirements reviews are limited in terms of number of evidence sources. Conclusions and implications for clinical practice reported are provisional based on the evidence identified in this review and should be contextualized to local practice, clinical expertise and patient values. For further information on the review process please contact

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Abstract

Background: Adults with a mental health condition are less likely to meet dietary guidelines and more likely to consume a diet high in discretionary choices. People with mental health conditions are also more likely to have poor dietary skills, such as difficulty in sourcing and preparing meals. These instrumental activities of daily living (IADLs) fall within the scope of practice for Occupational Therapists, however the extent of its utilisation is unclear from existing literature. **Review question:** An exploration into the role of Occupational Therapists in the provision of dietary interventions for adults with a mental health condition. **Data Sources:** Four health related databases (Medline, Ovid Embase, Ovid Emcare and PsycINFO) were searched up to October 2022. Articles that met the eligibility criteria were selected for this study (n=3). **Appraisal methods:** Critical Appraisal Tools (CATs) were used to assess the quality of the selected studies. These tools use a scoring system to provide an overall rating of the study. **Results:** The selected studies illustrated that Occupational Therapists are uniquely positioned and able to deliver dietary interventions to adults with a mental health condition. As they deliver these interventions, they are representing core Occupational Therapy philosophies by focusing on an individual's occupational performance. **Limitations:** While this review the limited in the number of studies utilised, and possibly bias by Occupational Therapists interested in and in favour of delivering dietary interventions, it nonetheless is illustrative of the potential role of OTs in delivering dietary interventions in certain situations. **Conclusions and implications of key findings:** Overall there is support for Occupational Therapists to deliver dietary interventions to adults with a mental health condition. The evidence suggest that these interventions fall inside the scope of practice for Occupational Therapists. This encourages practitioners to teach and apply these skills to enable and motivate individuals who

often find day-to-day activities difficult. Occupational Therapists can assist these individuals to perform a range of dietary-related occupations including shopping, budgeting, meal planning and cooking to live healthy and fulfilling lives.

Introduction

Adults with a mental health condition are two-to-three times more likely to be overweight or obese than individuals without a mental health condition (Bassett, Lloyd & King 2003; Mahony, Haracz & Williams 2012; Williams et al. 2016). People with a mental health condition are less likely to meet dietary guidelines and are more likely to consume a diet high in discretionary choices (Carson, Blake & Saunders 2013; Dipasquale et al. 2013; Ratliff et al. 2012). Symptoms of mental health such as self-neglect, amotivation and increased appetite are thought to create barriers to maintaining a healthy body weight. People with mental health conditions are more likely to have poor dietary skills such as difficulty in sourcing and preparing meals (Kilbourne et al. 2007; Mahony, Haracz & Williams 2012).

Previous studies have shown that Occupational Therapists can be involved in providing interventions aimed at assisting people with a mental health condition focusing on weight loss and obesity management, however, minimal literature explore the role Occupational Therapists have in providing education around instrumental activities of daily living (IADLs) related to diet such as meal planning, cooking, budgeting and shopping (Bassett, Lloyd & King 2003; Mahony, Haracz & Williams 2012; Williams et al. 2016). These instrumental activities of daily living (IADLs) fall within the scope of practice for Occupational Therapists, however the extent of which is unclear from the literature (Bassett, Lloyd & King 2003). This literature review aims to explore the most recent role of Occupational Therapists in providing dietary interventions to adults with a mental health condition. This knowledge will assist Occupational Therapists to be more aware of their ability and potential role to provide dietary interventions, which can be delivered in mental health (MH) settings and broader health care settings. The overarching research question is as follows: ‘An exploration into the role of occupational therapists in the provision of dietary interventions for adults with a mental health condition’.

Methodology

Four health related databases (Medline, Ovid Embase, Ovid Emcare and PsycINFO) were searched up to October 2022. Searchers were formulated using the PICO format (see table

1). This structures the question into the Population, Intervention, Comparison and Outcomes (PICO) format (see entire Medline search strategy in Appendix 1). Subsequently, a grey literature search was undertaken in September 2022 where the first five pages of google (approximately 50 results) were screened.

Table 1: Selected PICO and examples of search strategy key words

PICO Terms	Description	Keywords
Population (P)	Adults with a mental health condition	“Adult” and variations of mental health such as “mental illness” or “psychiatric illness”
Intervention (I)	Occupational therapy interventions that are diet related.	“occupational therapy” or “OT”
Comparison (C)	No comparison	N/A
Outcomes (O)	Understanding the role of OTs play in the provision of diet related interventions	Variations of “intervention” and diet such as “food intake”, “nutrition” or “meals”.

Articles were imported into Endnote 20 and duplicates were removed. The remaining articles were screened for their title and abstracts against eligibility criteria. From there, appropriate full-text copies of the articles were retrieved. Articles were eligible if they explored the role of occupational therapists delivering dietary interventions to adults in a MH setting. Articles were excluded if the population of participants were children or adolescents, they explored eating disorders or were not published in English.

Appendix 2 displays the flow chart for the selection of the studies included in this review. The three articles selected all met the eligibility criteria and were critically appraised using the Critical Appraisal Skills Programme (CASP 2018), the Mixed Methods Appraisal Tool (MMAT 2018) and Centre of Evidence Based Management (CEBMA) (2014) critical appraisal tool for a cross-sectional study (survey). Table 2 displays the selected studies and

associated critical appraisal tool. CASP checklists are succinct and easy to use and were selected as they provide checklists for a range of evidence types, such as qualitative studies (Long, French & Brooks 2020). The MMAT was selected as it is designed to critically appraise mixed method studies and is consistently tested for improvement (Hong et al. 2018). The CEBMa was utilised as it is uniquely designed to be able to appraise cross sectional studies which use a survey approach (Centre for Evidence Based Management 2014).

Table 2: Selected articles and Critical Appraisal Tools

Studies	Critical Appraisal Tool
Mahony, G, Haracz, K & Williams, LT 2012, 'How mental health occupational therapists address issues of diet with their clients: a qualitative study', <i>Australian Occupational Therapy Journal</i> , vol. 59, no. 4, pp. 294-301.	CASP (2018) Qualitative Study Checklist
Bassett, H, Lloyd, C & King, R 2003, 'Food Cent\$: Educating Mothers with a Mental Illness about Nutrition', <i>The British Journal of Occupational Therapy</i> , vol. 66, no. 8, pp. 369-75.	MMAT (2018)
Williams, L, Magin, P, Sultana, J & Haracz, K 2016, 'The role of occupational therapists in the provision of dietary interventions for people with severe mental illness: Results from a national survey', <i>The British Journal of Occupational Therapy</i> , vol. 79, no. 7, pp. 442–449.	CEBMa critical appraisal tool for cross sectional studies (survey) (2018)

Results

Commonly across the three selected articles (Bassett, Lloyd & King 2003; Mahony, Haracz & Williams 2012; Williams et al. 2016) key themes emerged. OTs are uniquely positioned to provide dietary interventions, addressing a range of skills such as budgeting, sourcing healthy foods, meal planning and cooking. These skills fall under the core OT philosophies where the focus is strongly on occupational performance of these daily activities to live independent lives, therefore forming part of the OT role. Additionally, OTs populations

feel a perceived need for education beyond what their primary degree afforded them to support them to provide dietary interventions in a MH setting. One way they feel to solve this situation is to increase the access to dieticians in MH settings to allow for consultation, to enhance the OTs knowledge base and confidence to provide dietary support to MH consumers (Bassett, Lloyd & King 2003; Mahony, Haracz & Williams 2012; Williams et al. 2016). Additionally, undertaking further professional development to through extra study to increase their dietary expertise is another possible way to address this issue (Mahony, Haracz & Williams 2012).

The decreased access to dieticians in MH settings puts extra demand on OTs to deliver dietary interventions to consumers who don't have access to dietary experts, shining a light on the important role OTs have in delivering such interventions (Mahony, Haracz & Williams 2012; Williams et al. 2016). Uniquely, Williams et al. (2016) found that consumers often find it difficult to understand dietary advice delivered by dieticians and OTs see their role as supporting and reinforcing this information in easy to understand terms and assisting them to integrate these skills into their usual daily habits and routines. Bassett, Lloyd & King (2003) found participants of the Food Scent\$ program felt they were able to improve shopping and cooking habits through gaining a better understanding of how to be savvy when they are shopping and get value for money through the implementation of money saving tools. This skill was felt by participants as the most important area to upskill in order to improve shopping expenditure.

The critical appraisal of the studies overall, delivered passable results (See table 3 for the selected studies characteristics). The studies had appropriate reporting of results and implications for practice. The studies also gave adequate reasons for undertaking the study however, some did not sufficiently describe the limitations of their own studies. The selected studies state these, but give limited insights into the limitations of their study.

Table 3: Study characteristics of three selected articles

Study characteristics	Studies		
	Mahony, Haracz & Williams 2012	Williams et al. 2016	Basset, Lloyd & King 2003
Study objective	Explore how MH OTs address issues of diet with their clients.	To quantify how Australian MH OTs address the dietary issues of people with severe mental health conditions.	To describe the inclusion of Food Cent\$ within a parenting programme for mothers with a mental health condition.
Population	6 occupational therapists who are either currently working or previously worked in a MH setting.	126 MH OTs	6 women living with a mental health condition. All participants were registered of a MH rehabilitation service.
Research design	Constructivist Grounded Theory (Charmaz 2000).	Mixed methods (qualitative and quantitative)	Mixed methods (qualitative and quantitative)
Outcome measures	The data was collected using semi-structured interviews. From these interviews the capacity of MH OTs to deliver dietary interventions and healthy eating advice including: cooking, budgeting, meal planning and shopping were analysed.	The data was collected using a 23 item survey emailed to MH OTs. From these surveys, preparedness for OTs to provide dietary interventions to those suffering a severe mental illness (SMI) were evaluated.	The qualitative data was collected using focus groups. The quantitative data was collected using supermarket receipts from before and after the Food Cent\$ programme. From the data, behaviours and attitudes towards food and food selection, preparation and reduced grocery expenditure were discussed.
Results	<p>The key themes that emerged from the results include:</p> <ul style="list-style-type: none"> - OTs are able to provide dietary interventions to those consumers who struggle with these skills. - Consumers also need to improve diet as part of a healthy lifestyle 	<p>The key themes that emerged from this study include:</p> <ul style="list-style-type: none"> - Participants felt positive about their experiences working with dieticians to address the needs of their consumers with a mental health 	<p>The key themes that emerged from the study include:</p> <ul style="list-style-type: none"> - The need to eat healthy food. - Understanding how to shop and get value for money. - Participants felt there had been a change in their shopping and

	<p>rather than just focusing on diet alone and supporting consumers through skill development of occupations such as shopping, budgeting and cooking.</p> <ul style="list-style-type: none"> - OTs are not experts on dietary advice but can assist consumers in the performance of these diet related skills. - OTs can feel unprepared to deliver dietary advice in MH settings and increasing their knowledge and upskilling these practitioners to deliver these interventions is crucial to improving consumers dietary practices. 	<p>condition and putting this advice into practice and delivering dietary interventions.</p> <ul style="list-style-type: none"> - 81% of participants felt confident in delivering several dietary interventions such as cooking, budgeting, meal planning and shopping. - MH consumers find it difficult to understand dietary advice from dietitians and OTs see their role as supporting and reinforcing this information simply and then assisting them to integrate these skills into their usual daily habits and routines. 	<p>cooking habits, eating more healthy and less discretionary food items.</p> <ul style="list-style-type: none"> - It can be tentatively concluded that the Food Cent\$ program had a positive effect on expenditure while shopping.
Take home message	OTs are uniquely positioned for the provision of occupational based dietary interventions. However, must be careful not to fall outside of the scope of OT practice	OTs can assist individuals with a SMI to put dietary advice into practice. However, continuing education on diet is needed to support practitioners.	OTs delivering the Food Cent\$ programme can significantly improve dietary practices when provided in the right setting. However, may not be useful to all individuals with a mental health condition.

Discussion

The review aimed to explore the role Occupational Therapists have in providing dietary interventions to adults with a mental health condition. The findings of this review suggest that Occupational Therapists see themselves as providing an important role in providing a range of diet related interventions to individuals with a mental health condition, but without addressing specific dietary needs (Bassett, Lloyd & King 2003; Mahony, Haracz & Williams 2012; Williams et al. 2016). Due to a high prevalence of health issues and reduced level of dietary knowledge and skills amongst those individuals with mental health condition, there is an opportunity for Occupational Therapists to provide dietary interventions to this class of individuals, and is consistent across the reviewed literature (Mahony, Haracz & Williams 2012; Capasso et al. 2008). The selected studies showed that Occupational Therapists can create positive outcomes for individual clients, helping them to develop integral dietary-related tasks (Bassett, Lloyd & King 2003; Mahony, Haracz & Williams 2012; Williams et al. 2016). Occupational Therapists surveyed in the Williams et al. (2016) study described their unique position in providing healthy diet options and they felt confident in assisting people with a mental health condition integrate these skills into their daily lives.

Development of dietary skills such as shopping, budgeting, meal planning and cooking are all common interventions which fall within the domain of Occupational Therapy practice. The basis for delivering these interventions is on the engagement in and performance of the dietary-related tasks, which are consistent with the Occupational Therapy practice framework of supporting healthy living and meaningful participation in life through participation in these tasks (Mahony, Haracz & Williams 2012; Williams et al. 2016). If Occupational Therapists can continue to provide diet related interventions to people with a mental health condition, then they are helping them develop integral dietary skills required to live independently. By providing these interventions then they are enacting the core values of occupational therapy of holism, client centredness and a focus on occupational performance (in this instance, food management/preparation and consumption) (Conn et al. 2019; Mahony, Haracz & Williams 2012). However, it is noted that Occupational Therapists feel there is a need for more dieticians

in the MH workplace to provide support to Occupational Therapists to address specific dietary issues outside the scope of their practice and knowledge base (Mahony, Haracz & Williams 2012). Additionally, further training for Occupational Therapists who wish to deliver specific diet related interventions could be undertaken to ensure they provide the most accurate and up to date dietary advice.

The articles selected give adequate reasoning for conducting their studies and an appropriate insight into the implications of their research for the Occupational Therapy profession and areas for future research were included. The selected studies had whole or partial aspects of qualitative data which enhances the understanding of the role Occupational Therapists have in this space. It allows for an in depth understanding of what practitioners feel which cannot be understood well enough with a purely quantitative study design. Specifically, Mahony, Haracz & Williams (2012), enhance the quality of their study by using a diverse array of MH Occupational Therapists with varying level of experience and viewpoints. Additionally, they used member checking at two separate points to increase the rigor of the study. Williams et al. (2016) enhanced its content validity of the survey used by obtaining in-depth information in the language of participants.

The limitations of the selected studies include the variation of the sample sizes used across the three studies. Although two of the studies had considerable sample sizes, Bassett, Lloyd & King (2003), had a significantly smaller sample size reducing the transferability of their results to wider MH consumer populations. Moreover, the self-reported nature of the survey utilised in Williams et al. (2016), means there was the potential for response bias by OTs more interested in and in favour of the delivery of dietary interventions. Additionally, there was no measure of reliability for the survey instrument used to collect participant responses. This review includes the use of only three studies which means the conclusions made may not truly reflect the true situation due to a limited data set. A more comprehensive

review would include many more studies to make the review more comprehensible. Overall, the limited number of articles that fit the criteria for selection indicates that more studies (qualitative and quantitative) are required to gain a better understanding of the role of Occupational Therapists in this type of intervention and its impact. Another perspective that isn't covered in the articles is the dietitians' opinion with Occupational Therapists providing such interventions.

Clinical bottom line

This review demonstrates Occupational Therapists are uniquely positioned to deliver diet-related interventions to adults with a mental health condition. When Occupational Therapists are delivering these interventions, they are representing core Occupational Therapy philosophies as the focus of these interventions is on individuals' occupational performance. This encourages Occupational Therapy practitioners to teach and apply these skills to enable and motivate individuals who often find day-to-day living difficult, to perform a range of dietary-related occupations including shopping, budgeting, meal planning and cooking to live healthy and fulfilling lives. It is important to consider the scope of practice for Occupational Therapists and not go beyond the core skill set Occupational Therapists provide when assisting individuals live independent lives. Occupational Therapists should have further training and professional development to provide more in-depth dietary advice or refer consumers with complex dietary problems to those with the skills to provide such advice.

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Appendix

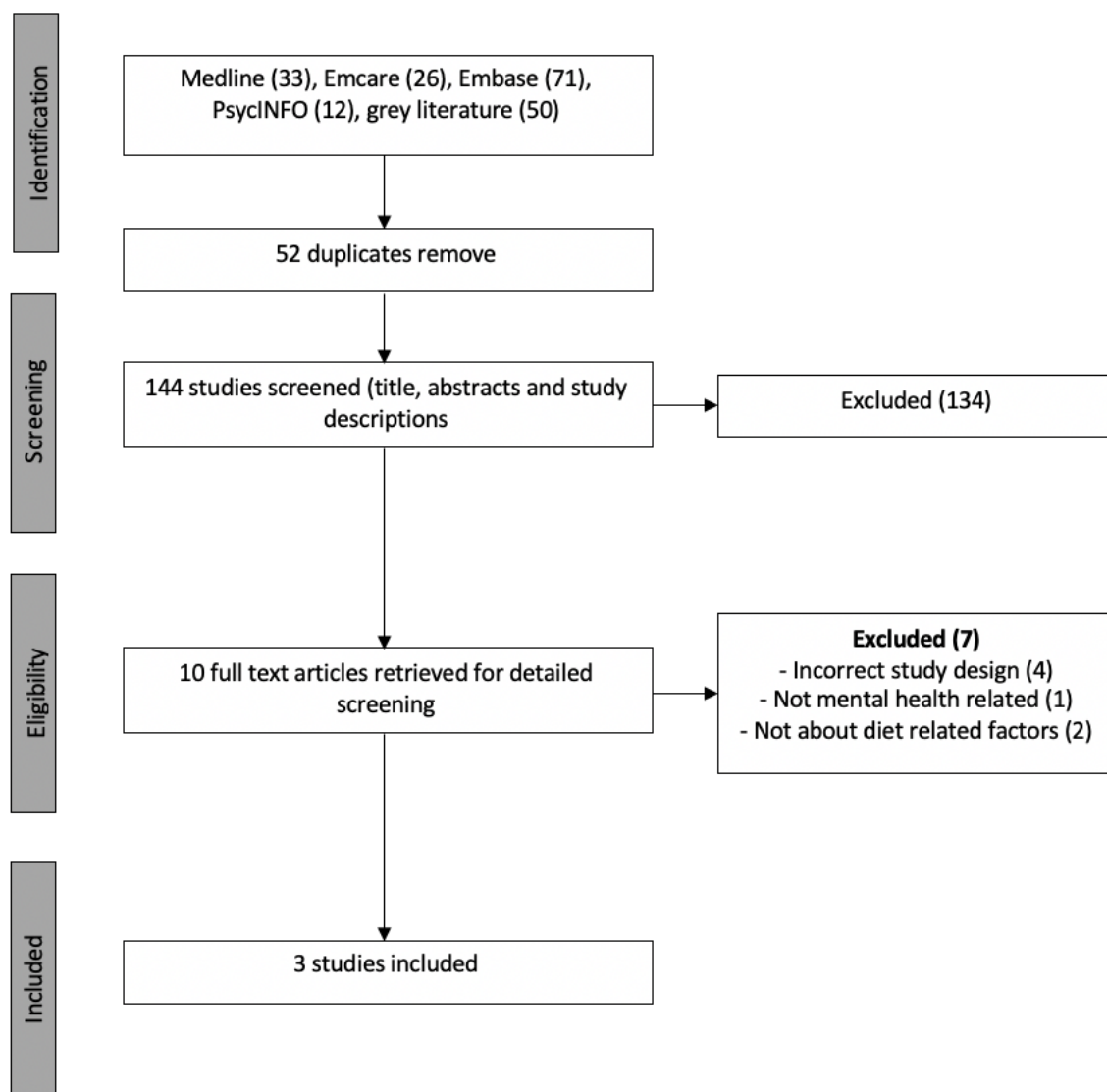
Appendix 1: Search strategy for MEDLINE

Database(s): Ovid MEDLINE® All 1946 to October 13 2022

<input type="checkbox"/>	# ▲ Searches	Results	Type	Actions	Annotations
<input type="checkbox"/>	1 occupational therapy/	15765	Advanced	Display Results More ▼	
<input type="checkbox"/>	2 occupational therapy.mp. or OT.ti.ab. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word]	22267	Advanced	Display Results More ▼	
<input type="checkbox"/>	3 1 or 2	22267	Advanced	Display Results More ▼	
<input type="checkbox"/>	4 mental health/	117847	Advanced	Display Results More ▼	
<input type="checkbox"/>	5 (mental health* or mental health illness or mental health disorder* or mental health c* or serious mental illness or SMI or mental illness* or mental health service*).mp. or psychiatric service*.ti.ab. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word]	226439	Advanced	Display Results More ▼	
<input type="checkbox"/>	6 4 or 5	226439	Advanced	Display Results More ▼	
<input type="checkbox"/>	7 (adult or person or individual).mp. or people.ti.ab. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word]	2814339	Advanced	Display Results More ▼	
<input type="checkbox"/>	8 (diet* or food intake or food or nutrition or meals).mp. or eating.ti.ab. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word]	583059	Advanced	Display Results More ▼	
<input type="checkbox"/>	9 (intervention or therapy or advice).mp. or education.ti.ab. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word]	1843120	Advanced	Display Results More ▼	
<input type="checkbox"/>	10 3 and 6 and 7 and 8 and 9	26	Advanced	Display Results More ▼	
<input type="checkbox"/>	11 limit 10 to english language	25	Advanced	Display Results More ▼	

Note: Subject headings are followed by a “/” icon.

Appendices 2: PRISMA Flowchart of Study Selection



Appendix 3: Critical appraisals of 3 selected studies

a.) Critical appraisal of (Mahony, Haracz & Williams 2012) - CASP (2018) Qualitative Study Checklist



Paper for appraisal and reference: Mahony, Haracz & Williams 2012

Section A: Are the results valid?

1. Was there a clear statement of the aims of the research?

Yes	<input checked="" type="checkbox"/>
Can't Tell	<input type="checkbox"/>
No	<input type="checkbox"/>

HINT: Consider

- what was the goal of the research
- why it was thought important
- its relevance

Comments: The aim of the research article was clearly stated: this study explored the attitudes, actions and beliefs of mental health occupational therapists about providing diet-related interventions. The importance and relevance of the research was also described in detail.

2. Is a qualitative methodology appropriate?

Yes	<input checked="" type="checkbox"/>
Can't Tell	<input type="checkbox"/>
No	<input type="checkbox"/>

HINT: Consider

- If the research seeks to interpret or illuminate the actions and/or subjective experiences of research participants
- Is qualitative research the right methodology for addressing the research goal

Comments: Overall yes, the paper seeks to understand the beliefs, actions and attitudes of mental health OTs in providing diet related interventions which means a qualitative methodology would be the most appropriate to address the aim of the study.

Is it worth continuing?

3. Was the research design appropriate to address the aims of the research?

Yes	<input checked="" type="checkbox"/>
Can't Tell	<input type="checkbox"/>
No	<input type="checkbox"/>

HINT: Consider

- if the researcher has justified the research design (e.g. have they discussed how they decided which method to use)

Comments: Yes. The paper utilises a constructivist grounded theory qualitative approach which is appropriate to the aim of the paper. It aims to understand the beliefs, actions and attitudes of mental health OTs in providing diet related interventions.

4. Was the recruitment strategy appropriate to the aims of the research?

Yes	<input checked="" type="checkbox"/>
Can't Tell	<input type="checkbox"/>
No	<input type="checkbox"/>

HINT: Consider

- If the researcher has explained how the participants were selected
- If they explained why the participants they selected were the most appropriate to provide access to the type of knowledge sought by the study
- If there are any discussions around recruitment (e.g. why some people chose not to take part)

Comments: Overall, yes, participants were selected based on OTs experience working in mental health. The researcher explained how participants were chosen, through purposive sampling. They explained why the participants that were selected were the most appropriate.

5. Was the data collected in a way that addressed the research issue?

Yes	<input checked="" type="checkbox"/>
Can't Tell	<input type="checkbox"/>
No	<input type="checkbox"/>

HINT: Consider

- If the setting for the data collection was justified
- If it is clear how data were collected (e.g. focus group, semi-structured interview etc.)
- If the researcher has justified the methods chosen
- If the researcher has made the methods explicit (e.g. for interview method, is there an indication of how interviews are conducted, or did they use a topic guide)
- If methods were modified during the study. If so, has the researcher explained how and why
- If the form of data is clear (e.g. tape recordings, video material, notes etc.)
 - If the researcher has discussed saturation of data

Comments: Yes, the author made it clear the data was collected using semi-structured interviews, commonly used in grounded theory. The author specified how the data from the interviews were recorded, which was using audio-recorded and transcribed verbatim. Data saturation was described.



6. Has the relationship between researcher and participants been adequately considered?

Yes	<input type="checkbox"/>
Can't Tell	<input type="checkbox"/>
No	<input checked="" type="checkbox"/>

HINT: Consider

- If the researcher critically examined their own role, potential bias and influence during (a) formulation of the research questions (b) data collection, including sample recruitment and choice of location
- How the researcher responded to events during the study and whether they considered the implications of any changes in the research design

Comments: **No, the author does not adequately described the relationship between researcher and participants. No formal section addresses this aspect.**

Section B: What are the results?

7. Have ethical issues been taken into consideration?

Yes	<input checked="" type="checkbox"/>
Can't Tell	<input type="checkbox"/>
No	<input type="checkbox"/>

HINT: Consider

- If there are sufficient details of how the research was explained to participants for the reader to assess whether ethical standards were maintained
- If the researcher has discussed issues raised by the study (e.g. issues around informed consent or confidentiality or how they have handled the effects of the study on the participants during and after the study)
- If approval has been sought from the ethics committee

Comments: **Yes, the study was approved by the University of Newcastle Human Research Ethics Committee. All participants provided written, informed consent to participate in the study.**



8. Was the data analysis sufficiently rigorous?

Yes	<input checked="" type="checkbox"/>
Can't Tell	<input type="checkbox"/>
No	<input type="checkbox"/>

HINT: Consider

- If there is an in-depth description of the analysis process
- If thematic analysis is used. If so, is it clear how the categories/themes were derived from the data
- Whether the researcher explains how the data presented were selected from the original sample to demonstrate the analysis process
- If sufficient data are presented to support the findings
 - To what extent contradictory data are taken into account
- Whether the researcher critically examined their own role, potential bias and influence during analysis and selection of data for presentation

Comments: Overall yes, the study gives an in-depth description of the data analysis process. The data was compared and contrasted by all authors to compare codes recorded from each interview to be able to see the emerging theoretical concepts. Bias of the data was not discussed, however rigor was maintained through purposive sampling of participants, member checking and maintenance of an audit trail.

9. Is there a clear statement of findings?

Yes	<input checked="" type="checkbox"/>
Can't Tell	<input type="checkbox"/>
No	<input type="checkbox"/>

HINT: Consider whether

- If the findings are explicit
- If there is adequate discussion of the evidence both for and against the researcher's arguments
- If the researcher has discussed the credibility of their findings (e.g. triangulation, respondent validation, more than one analyst)
- If the findings are discussed in relation to the original research question

Comments: Overall yes, the researcher's give an in-depth discussion of the evidence found. The findings are discussed in relation to the original research question. The researcher discuss the strengths and limitations of the study.



Section C: Will the results help locally?

10. How valuable is the research?

HINT: Consider

- If the researcher discusses the contribution the study makes to existing knowledge or understanding (e.g. do they consider the findings in relation to current practice or policy, or relevant research-based literature
- If they identify new areas where research is necessary
- If the researchers have discussed whether or how the findings can be transferred to other populations or considered other ways the research may be used

Comments: The findings of the is qualitative study is contributing to current research in this area of the provision of OTs providing dietary interventions on mental health settings. They identify future areas of research that would be useful to further explore the role OTs play in diet related interventions. The study also mentions how the study can be transferred to other populations but due to the locality of the study its transferability to other mental health settings may be reduced.

b.) Critical appraisal of Bassett, Lloyd & King 2003 - MMAT (2018)

Category of study designs	Methodological quality criteria	Responses			
		Yes	No	Can't tell	Comments
Screening questions (for all types)	Are there clear research questions?				What is the understanding that mothers with a mental illness have about nutrition, about budgeting for, selecting and purchasing nutritious foods and about food preparation? Does attending the Food Cent\$ programme increase their understanding of these areas?
	Do the selected data allow to address the research questions?				Focus groups to understand participant experiences and collection of supermarket receipts to give an indication of change.
5. Mixed Methods	5.1 Is there an adequate rationale for using a mixed methods design to address the research question?				Yes, as it is seeking to understand the experiences of the population using the programme and quantitative affect this has on food expenditure behaviour
	5.2. Are the different components of the study effectively integrated to answer the research question?				The different components were adequately described and integrated to answer the research question. Both data sets interrelated to one another.
	5.3. Are the outputs of the integration of qualitative and quantitative components adequately interpreted?				Understanding was developed through the integration of the inferences obtained from the qualitative and quantitative strands of a mixed methods study
	5.4. Are divergences and inconsistencies between quantitative and qualitative results adequately addressed?				It is mentioned briefly in the limitations section, however, does not really go into detail. They mention that some food expenditure may not have been captured.
	5.5. Do the different components of the study adhere to the quality criteria of each tradition of the methods involved?				Overall no, although most component of the study adhere to the quality criteria of each tradition some sections were lacking and no details were given pertaining to these sections.

Appendices 5:

Critical appraisal of Williams et al. 2016 – CEBMa critical appraisal tool for cross sectional studies (survey) (2014)

Critical Appraisal of a Cross-Sectional Study (Survey)

Appraisal questions	Yes	Can't tell	No
1. Did the study address a clearly focused question / issue?	✓		
2. Is the research method (study design) appropriate for answering the research question?	✓		
3. Is the method of selection of the subjects (employees, teams, divisions, organizations) clearly described?	✓		
4. Could the way the sample was obtained introduce (selection) bias?	✓		
5. Was the sample of subjects representative with regard to the population to which the findings will be referred?	✓		
6. Was the sample size based on pre-study considerations of statistical power?			✓
7. Was a satisfactory response rate achieved?	✓		
8. Are the measurements (questionnaires) likely to be valid and reliable?	✓		
9. Was the statistical significance assessed?			✓
10. Are confidence intervals given for the main results?			✓
11. Could there be confounding factors that haven't been accounted for?	✓		
12. Can the results be applied to your organization?	✓		

Adapted from Crombie, *The Pocket Guide to Critical Appraisal*; the critical appraisal approach used by the Oxford Centre for Evidence Medicine, checklists of the Dutch Cochrane Centre, BMJ editor's checklists and the checklists of the EPPI Centre.

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