ACHSM Asia-Pacific Journal of Health Management

RESEARCH ARTICLE

ORGANISATIONAL FACTORS IN RESIDENTIAL AGED CARE FACILITIES INFLUENCING SPECIALISED TEXTURE MODIFIED DIETS

Claudia Sauvage[1], Sheree Lloyd*[2]

1. Griffith University, Queensland Australia
2. University of Tasmania, Australia

Correspondence: cgs.apd@gmail.com

ABSTRACT

INTRODUCTION

Adherence to specialised diets when prescribed, is critical to support nutritional and general health and well-being for residents of aged care facilities. Understanding the organisational factors that health service and clinical managers action can address the nutritional health of residents of residential aged care facilities.

Objective: Identify the organisational factors that influence the delivery of prescribed textured modified diets in residential aged care facilities.

DESIGN:

A scoping review was conducted using searches across four databases. Papers were screened if they were published after 2014 in peer reviewed articles, in English and covered relevant concepts guided by the research questions. Organisational factors that influenced the delivery of prescribed diets in RACFs was then extracted from the studies that met the selection criteria and a quality assessment performed using the Critical Appraisal Skills Program (CASP) tool.

FINDINGS:

Thirteen articles were included in the scoping review. The studies were observational and predominately qualitative, with one study incorporating a mixed method design. Six dominant themes were identified as significant factors influencing the influence the delivery of prescribed textured modified diets in residential aged care facilities.

CONCLUSION:

Based on the evidence identified in this scoping review, it highlights a significant gap in research that explores the multifactorial, organisational factors that influence the delivery of prescribed texture modified diets in residential aged care facilities. Recent knowledge from the Royal Commission into Aged Care Quality and Safety and the Aged Care Quality Standards can aid residential aged care facilities, tailored specifically to the organisation, can ensure the highest quality of care and standardised practices are provided for accurate and safe delivery of prescribed texture modified diets.

KEYWORDS

Texture modified diets, dysphagia, organisational barriers, residential aged care facilities.

INTRODUCTION

Dysphagia is the medical term for the complication or inability to swallow, classified by the World Health Organisation as both a disease and functioning disability. [1] Diagnosed by an interprofessional team, using tests and x-rays, dysphagia affects 8% of the global population, and presents as heterogenous observable and non-observables symptoms such as pain or difficulty with sucking, drinking, chewing, eating, controlling saliva and food lodged within the oesophagus or chest. [1-3]

Accurate assessment of dysphagia, specifically the origin and severity are necessary to determine the most appropriate recommendation for the types of texture modified food and fluid thickness [4]. Speech language pathologists (SLP) in Australia and internationally are also referred to as speech language therapists and hereafter will be referred to as SLPs. SLPs study, diagnose a heterogenous range of communication disorders and specialise in helping individuals experiencing difficulties with swallowing and associated issues. [5] One of the important roles of a SLP, is to prescribe specific texture modified diets (TMDs) [6]. For individuals who suffer from dysphagia, texture modified diets (TMDs), encompassing both food and fluids, are prescribed to aid in reducing risk of adverse events such as aspiration or choking. [1,7,8]
Prescribed TMDs are minced, softened, blended, pureed, cut into bite size pieces, or moistened by adding water. [3] Moreover, TMDs include the use of thickened fluids, which facilitates movement of swallowing, therefore enhancing safety. [10]

In 2019, the International Dysphagia Diet Standardisation Initiative (IDDSI) developed a standardised framework for TMDs, including six classifications for food and five for fluid. [8] Previous to the introduction of the IDDSI framework, TMDs created several challenges managing dysphagia, lack of standardisation and description of the modification levels, inconsistency of staff education and knowledge. [9] The incidence of inappropriately managing dysphagia through TMDs can result increased risk of malnutrition, dehydration, and related weight loss. [3]

Due to age related physiological degradation, in combination with the clinical sequalae of comorbidities, the aged population are at an increased risk of developing dysphagia. [7] Within this demographic, a high prevalence of 40-68% of adults living in residential aged care facilities (RACFs) are affected by dysphagia. [5] Internationally, RACFs are also referred to as nursing homes, however in this study, they will be referred to as RACFs. The multifactorial delivery of TMDs, prescription, menu planning, meal preparation, delivery and mealtime assistance if required requires numerous staff members. Importantly, the clarification of the two staffing categories prominent within this review, professional (SLPs, dietitians and nurses) and frontline (nursing aids, carers, support staff, kitchen staff).

Minimal research has been performed within RACFs, specifically from a staff and resident perspective concerning the operational barriers in which affect the appropriate provision and delivery of prescribed TMDs. [11,18,22,23] Therefore, the aim of this scoping review was to identify the organisational factors that influence the delivery of prescribed TMDs in RACFs. This scoping review is guided by the research question, "what are the organisational factors that influence the delivery of prescribed TMDs in residential aged care facilities?''. By understanding the organisational factors health service and clinical managers can respond to address them and improve the outcomes for residents of RACFs in Australia and internationally.

METHODS

This scoping review was conducted by a master's student completing a health project at an ACHSM accredited Australian University under the Supervision of an academic. A scoping review method was utilised and is a beneficial approach to identify the research available, gaps in the literature, types of studies and explain relevant definitions and conceptual boundaries [12]. Furthermore, a scoping review can assist with mapping and synthesising the key theories within in the research topic and findings can be applied to inform policy, practice, and future research. [13] This scoping review was conducted through employing Levac et al.'s methodological framework, which adopts six stages (Table 1) [12].

TABLE 1: OVERVIEW OF LEVAC ET AL.'S METHODOLOGICAL FRAMEWORK.

No.	Characteristic	Description
1	Identify the research question	The research identified was to answer the following research question: "what are the organisational factors that influence the delivery of prescribed textured modified diets in residential aged care facilities?''.
2	Identify relevant studies	Relevant studies were identified and guided by the research question. This process was in collaboration with an experienced librarian to formulate search terms and identify relevant databases.
3	Study selection	The screening of selected studies, the title and abstract were reviewed, if relevant, the full article was read.
4	Chart the data	Charting of the data, a content analysis was used to draw concepts from each study.
5	Collate, summarise, and report results	Adopting a systematic framework to deliver a thematic summary of the literature.
6	Consultation	Is optional, allows for stakeholder and consumer involvement opportunity, however it is extraneous in this circumstance.

INCLUSION CRITERIA

Stage 2 of Levac et al.'s methodological framework involved the inclusion of studies which explored the organisational impacts of individuals who suffer from dysphagia and have prescribed TMDs, the diagnosis of dysphagia and subsequent prescription of a texture modified diet was required for inclusion. However, if study samples reported that individuals suffered from other conditions and were prescribed TMDs, these were included. Participants were included if they were on normal diets, to explore potential correlations between organisational factors of TMDs compared to normal diets. Furthermore, studies that applied both an interventional and observational methodologies. Studies published later than 2014, peer reviewed articles, English language and addressing relevant concepts were initially screened.

DATA SOURCES

A literature search was conducted including the following databases: CINAHL (Ebsco with full text), SCOPUS, Cochrane, and PubMed. Collaborating with an experienced librarian, the search strategy was constructed utilising the building block and Boolean techniques and shown in Table 2.

TABLE 2: KEY SEARCH STRATEGIES UTILISED.

Key Term	Building Block
Dysphagia	(''dysphagia'' OR ''deglutition disorder'')
RACF	("aged care" OR "nursing home")
Organisational factor	(barrier*" OR "challenges")
NB Search blocks were formulated by combining with AND, combining with synonyms and word truncations with OR using both text word and headline.	

The search strategy was tested initially in CINAHL, translated to the other databases. The key terms originated by cross checking search words from related studies, thesauri terms, and suggestions from the librarian. Utilisation of a useful tool for complex and heterogenous evidence, a snowballing search methodology was additionally employed. [14] The final papers for inclusion were imported into Endnote 20 bibliographic software.

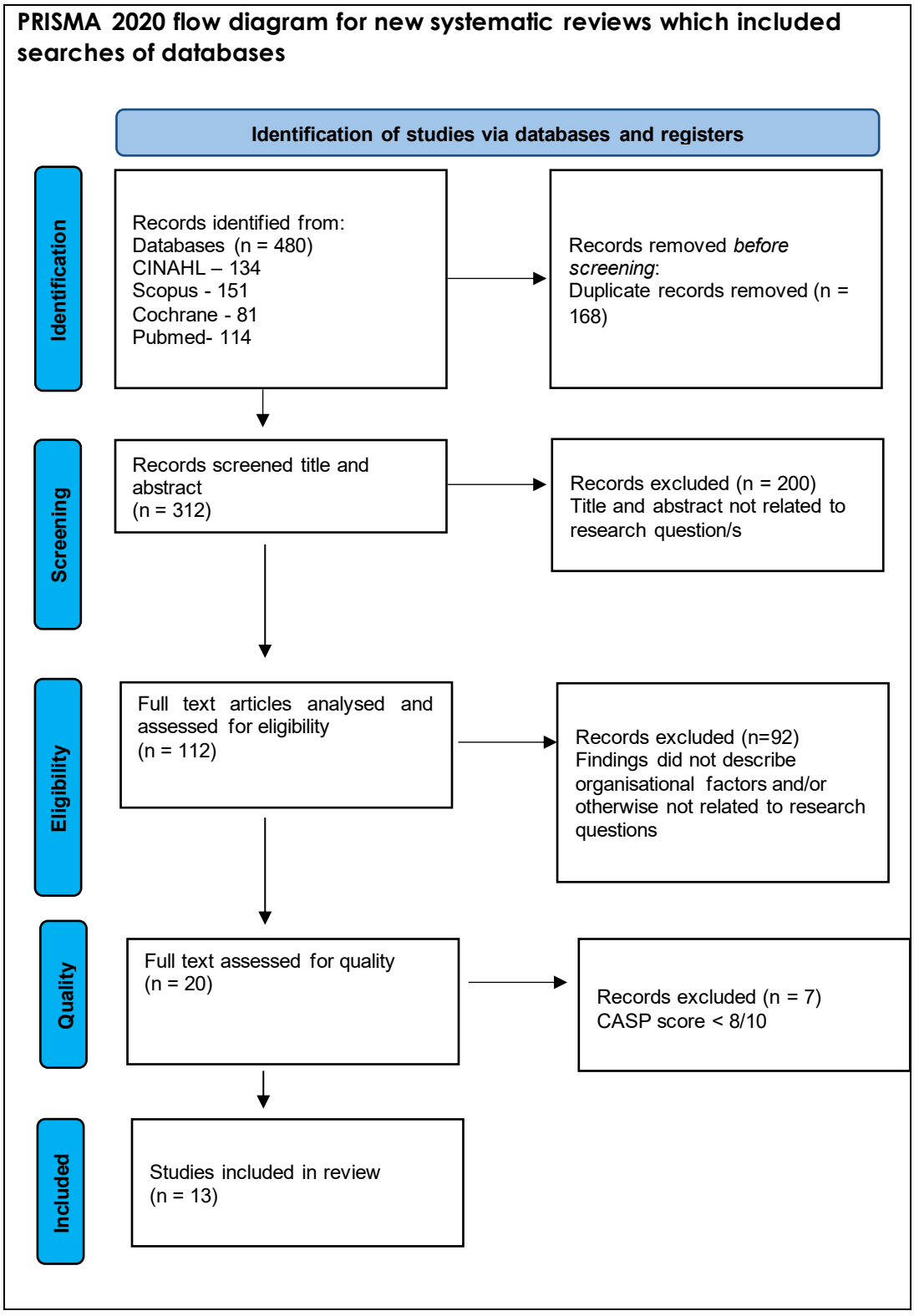
DATA COLLECTION AND ANALYSIS

The researcher extrapolated data from the studies that met the selection criteria. Data items extracted included author(s), publication date, country of publication, objective of the study, research design, quality score and organisational factors influencing TMDs. Critical analysis of the papers involved evaluating the quality of research design using the Critical Appraisal Skills Program (CASP) tool and assessing articles against the ten criteria [15]. The articles that received a standardised rating over 8/10 met the selection criteria. This score was discussed with the author's academic supervisor, a senior university lecturer with a PhD qualifications and experience in Scoping Review methodology. This ensured an appropriate level of study quality were included. Data was collected from the included studies using an Excel spreadsheet. Relevant and applicable data extracted from each paper was analysed and themes and sub themes identified.

RESULTS

The initial search resulted in 480 articles generated from the search strategy, as presented in the PRISMA flow diagram (Figure 1). Initially duplicates were removed, then relevant article titles were screened and the abstracts read, and papers not related to the research question were removed. Full text articles were then analysed and a further 92 papers excluded as the paper findings did not discuss organisational factors related to the topic under study and/or were not relevant to the research question. The CASP appraisal was conducted on 20 articles, with 7 papers excluded as their CASP score was less than 8/10 and after discussion with the academic supervisor. This resulted in 13 articles that were included in the scoping review. The included studies comprised of 12 qualitative, observational studies and 1 interventional study incorporating a mixed method design.

FIGURE 1: PRISMA FLOW DIAGRAM FOR SCOPING REVIEW, ADAPTED FROM REJÓN-PARILLA ET AL. [14] AND PAGE ET AL. [31].



The articles included in the review were based in a broad range of countries, Australia, Norway, Germany, USA, UK, and Canada. A variety of methods were applied in the studies included with varying sample sizes and participants including front-line staff, managers, family members and clinicians (Table 3).

TABLE 3: STUDY DESIGN CHARACTERISTICS OF ARTICLES INCLUDED IN SCOPING REVIEW

Study Design	Article & Ref. Number	Type	Location	Characteristics	Participants
Survey	Burger et al. (2019) [18]	Cross sectional Survey	Germany	National survey Completed on an organisational level	RACFs n= 563
	Garcia et al. (2018) [19]	Longitudinal survey	Kansas State, USA Multiple settings	Multi-site survey Two time periods	Professional & frontline staff N=175
Focus groups/interviews	Austbø- Holteng et al. (2017) [17]	Semi structured focus groups	Norway One RACF	Interviews categorised by individual	Professional & frontline staff n=12
	Keller and Duizer. (2014) [7]	Semi structured focus groups	One province in Canada Multiple RACFs	Interviews n =12, categorised by individual staff group	Professional & frontline staff n= 80
	Pownall et al. (2019) [21]	Semi structured focus groups	Four RACFs within one city in the United Kingdom	Completed by the home care or quality manager within that organisation	Professional & frontline staff n=37 Managers n=8
	Bennett et al. (2014) [25]	Semi structured interviews	Multiple RACFs in rural and metro Australia	Interviews n =10, categorised by individual staff group	Professional & Frontline staff n= 61
	Ilhamto et al. (2014) [20]	Semi structured interviews	Canada 25 RACFs	Interviews n= 25 categorised by individual staff group	Professional & frontline staff n= 48
	Shune and Linville. (2019) [22]	Semi structured interviews	USA Multiple RACFs	Individual interviews	Residents with dysphagia n= 3 Family Member n= 3 Professional & frontline staff n= 15

Study Design	Article & Ref. Number	Type	Location	Characteristics	Participants
	Ullrich and Crichton. (2015) [23]	Semi structured interviews	Australia 2 RACFs	Individual interviews	Residents with dysphagia n= 3 Family Member n= 6 Professional & frontline staff n= 19
	Wang D et al. (2020) [24]	Semi structured interviews	Australia Multiple RACFs	In-depth individual interviews	Residents with dysphagia n=7 Professional & frontline staff n=7
Multiple part designs	Abbey et al. (2015) [16]	Longitudinal three-part study: 1. National survey 2. Menu review 3. Reflective journal	One Australian RACF	Completed on an organisational level 66% metropolitan & 34% rural RACFs	Professional & Frontline staff 1. Survey n= 274 2. Menu review n= 161 3. Reflective journal n= 36
	Bennett et al. (2015) [10]	1. Residential file review 2. Mealtime observation 3. Questionnaire	Two rural Australian RACF		1. Resident review n= 14 2. Mealtime observations n= 41 3. Staff n=29 & Resident n = 14 questionnaire
	Hill et al. (2021) [11]	1. Focus groups 2. Meal audits	One rural Australian RACF	Part 2 conducted to compare the TMD prescribed versus delivered to residents	1. Professional & frontline staff n=11 2. n= 41 audits including 14 residents.

TABLE 4: DESCRIPTION OF DOMINANT THEMES IDENTIFIED IN THE PAPERS RELATING TO ORGANISATIONAL FACTORS

Theme 1 - Autonomy & quality of life		
Subtheme	**Article**	**Description**
Resident autonomy	Abbey et al. (2015) [16]	Compromised autonomy of resident's food choices.
	Hill et al. (2021) [11]	Staff were unsure of how to proceed when residents requested food outside of their prescribed TMD.
	Wang et al. (2020) [24]	Decisions made on the corporate level of the organisation resulted in no room for individual variation, leaving staff feeling frustrated with TMDs.
	Garcia et al. (2018) [19]	Staff felt distress with providing meals outside resident's choice and experienced comfort in changing the prescribed TMD more to suit resident's choice.
Lack of choice	Burger et al. (2019) [18]	Not all TMD levels were available. Not as many options on the menu as a normal diet.
	Shune and Linville. (2019) [22]	Not as many options on the menu as a normal diet.
	Keller and Duizer. (2014) [7]	Not as many options on the menu as a normal diet. Staff deviating from the set menu to provide more variety.
	Pownall et al. (2019) [21]	Not as many options on the menu as a normal diet. Staff deviating from the set menu to provide more variety. Multiple instances of compromised quality, provision, and variety of TMD.
Visual presentation	Austbø-Holteng et al. (2017) [17]	Presentation of food caused staff to feel bad about serving specific meals.
	Keller and Duizer. (2014) [7]	Presentation of food caused staff to apologise about serving specific meals, changing meals, or offering more of visually appealing foods.
Dignity & risk	Garcia et al. (2018) [19]	Staff felt that residents should be able to choose their dietary intake despite their prescribed TMD.
	Ullrich and Crichton. (2015) [23]	Risk management is needed to be further explored to balance the risk of the patient consuming foods not prescribed and the wishes of the resident.
	Shune and Linville. (2019) [22]	Conflicts between resident's choice and limitations with risk for the organisation. Risk management is needed to be further explored to balance the risk of the patient consuming foods not prescribed and the wishes of the resident.

Theme 2 Adherence		
Subtheme	**Article**	**Description**
Stakeholder acceptance	Garcia et al. (2018) [19]	If caregivers/servers/family members/staff/friends had a negative attitude towards TMD, this would impact on the resident and the adherence to delivering the prescribed TMD. Staff felt a level of comfort modifying the recipe if they perceived it was making the resident happier or meeting their wishes.
	Ilhamto et al. (2014) [20]	Staff expressing negative attitude toward the pureed diet, potentially influencing resident's perception and furthermore their dietary intake.
Stakeholder Acceptance	Shune and Linville. (2019) [22]	Staff's investment and demonstration of acceptance of the TMDs resulted in higher adherence.
Modification of TMD	Abbey et al. (2015) [16]	Kitchen staff interpreted the menu and made modifications as they thought appropriate.
	Bennett et al. (2014) [10]	Poor adherence or regard by staff for the documented prescribed TMD.
	Burger et al. (2019) [18]	Kitchen staff interpreted the menu and made modifications as they thought appropriate.
	Hill et al. (2021) [11]	Staff reported feeling undervalued or ''at the bottom'' of the organisational hierarchy and had become complacent to keeping the prescribed TMD for residents.
	Ilhamto et al. (2014) [20]	Kitchen staff, due to experience, used the recipe as a starting point and made modifications as they thought appropriate.
	Keller and Duizer. (2014) [7]	Kitchen and nursing staff interpreted the menu and made modifications as they thought appropriate.

Theme 3 - Communication & Documentation		
Subtheme	**Article**	**Description**
Inter Staff communication	Austbø -Holteng et al. (2017) [17]	Lack of effective communication between kitchen and nursing/nursing aid/carer staff to deliver accurate prescribed TMD.
	Burger et al. (2019) [18]	Interdisciplinary approach is needed, establishing process and communications between professional and frontline staff.
	Hill et al. (2021) [11]	Communication breakdown between professional and frontline staff Poor handover between professional and frontline staff. Misunderstanding of SLP's recommendations and no opportunity to clarify.
	Shune and Linville. (2019) [22]	Interdisciplinary approach, all team members are supported and included. Breakdown in effective communication is a major barrier.
	Ullrich and Crichton. (2015) [23]	Communication breakdown between professional and frontline staff, especially communicating change.
	Keller and Duizer. (2014) [7]	Communication breakdown between professional and frontline that compromises resident safety.
Poor documentation	Bennett et al. (2015) [25]	Staff not aware of specific mealtime management or prescribed TMD for specific residents. Discrepancies of documentation for updated prescribed TMDs.
	Hill et al. (2021) [11]	Frontline staff reporting resident's files not updated or incorrectly completed. Opportunities for error due to manual data input and multiple documentation to complete.

Theme 4 - Knowledge & Training		
Subtheme	**Article**	Description
Lack of knowledge	Hill et al. (2021) [11]	Lack of knowledge resulting in lack of confidence in manually thickening fluids to deliver prescribed TMD.
	Ullrich and Crichton. (2015) [23]	Lack of TMD specific knowledge.
	Shune and Linville. (2019) [22]	Lack of knowledge resulted in a correlation with staff's attitudes and beliefs negatively impacting resident's prescribed TMD.
	Wang et al. (2020) [24]	Lack of knowledge and opportunity to increase their specific TMD knowledge.
Lack of training	Hill et al. (2021) [11]	Limited organisational training, this was a driver for confusion and knowledge deficiencies.
	Pownall et al. (2019) [21]	Limited organisational opportunities for training or upskilling in the specific area of TMDs. This access varied across RACFs and there was a lack of standardised training specifically with TMDs.
	Shune and Linville. (2019) [22]	Lack of organisational training.

Theme 5 - Financial, time and Staffing Pressures		
Subtheme	**Article**	**Description**
Finances	Bennett et al. (2015) [25]	Impacted of staff shortages and the ability to prepare, deliver, and feed residents.
	Hill et al. (2021) [11]	Staff felt they could not offer recommendations for improving processes due to associated costs it could incur.
	Shune and Linville. (2019) [22]	Staff asked to do more with the visual representation of TMDs despite the budget cuts.
	Wang et al. (2020) [24]	TMDs require more resources and equipment.
	Burger et al. (2019) [18]	TMDs require more resources and equipment.
Time pressure	Burger et al. (2019) [18]	Increased time pressure to prepare, deliver and feed residents requiring high care during mealtime.
	Austbø- Holteng et al. (2017) [17]	Staff reported that assisting residents with TMDs is time consuming and takes away from the capacity to help other residents.

Theme 5 - Financial, time and Staffing Pressures		
	Bennett et al. (2014) [10]	Nurses reported time considerations resulted in AIN or care staff assisting feeding with residents on TMDs.
	Hill et al. (2021) [11]	Staff reported strict time pressures resulted in the opportunities for errors with delivering TMDs.
	Wang et al. (2020) [24]	It was calculated that 6 minutes per resident were allocated to assist with feeding. Work hours are cut for staff due to RACF budget cuts.
Staff shortages	Hill et al. (2021) [11]	Short staff, access to SLPs, limited staff knowledge resulting in staff members discouraged to deliver prescribed TMDs.
	Bennett et al. (2014) [10]	Residents requiring high care during mealtime, this was not observed due to staff resourcing.
	Pownall et al. (2019) [21]	Not enough staff at mealtimes to support residents to safely consume TMD.

Theme 6 - Staff Roles & Responsibilities		
Subtheme	**Article**	**Description**
Inconsistent staff roles & responsibilities	Bennett et al. (2014) [10]	Residents being put on TMDs that were not prescribed through SLP.
	Bennett et al. (2015) [25]	A wide range of reported responsibilities from staff members Staff felt responsible for making a prescription of a TMD of a resident if they saw them struggling to chew or cough. Lack of defined consensus of who makes or modifies the prescription of resident's TMD.
	Hill et al. (2021) [11]	Nursing staff reported that the role of SLP's as unnecessary and that they were equipped to make the decision regarding a resident's TMD. Poor knowledge of the specific role of SLPs.
Lack of support from management	Hill et al. (2021) [11]	Feel there is not opportunity to express concerns or question the processes.

DISCUSSION

The aim of this scoping review was to identify the factors that influence the delivery of prescribed textured modified diets in RACFs. Six themes with relevant sub themes were identified within the literature and found to influence the delivery of prescribed TMDs in RACFs.

AUTONOMY & QUALITY OF LIFE

The lack of choice with prescribed TMDs compared to normal diets and the visual presentation was reported to compromise residents' autonomy [7,11,16-19, 21, 22, 24, 25]. Residents refusing to consume their TMD and staff members uncertainty as to how to best balance the resident's wishes with their clinical prescription were described. [11,19] TMDs are recommended to manage dysphagia, however, have been found to be nutritionally insufficient compared to normal diets in terms of their energy, protein, fiber, and micronutrients [27, 28] and puts residents at risk of malnutrition. [23, 27,28] This in combination with residents not wishing to consume their TMD prescribed meals can have significant nutritional consequences. [30] Reported as aesthetically unappealing, the included studies s identified that redevelopment to improve the palatability, enjoyment, and visual appearance of TMDs was needed. [17, 18, 20, 22] The reform of meal appearance and utilisation of food molds to improve presentation has been shown to increase the appeal of TMDs and subsequently increased resident consumption. [17,18, 22,30]

Clearly identified throughout the literature was the need for managerial and organisational support to empower residents and staff members to negotiate the difficult pathways of balancing the autonomy of resident with clinical prescriptions and risks to the organisation. [11,22,26,27,30] The law states that if the resident has capacity to make an informed decision regarding consumption of a TMD, understands the associated risks with refusal, TMDs have been communicated and understood then the resident has the right to refuse. [30]. However, in many instances resident cognitive capacity has declined and the next of kin may not be able to make the decision on the resident's behalf. [30]

Guided by the Royal Commission into Aged Care Quality and Safety report and the Aged Care Quality Standards, regarding consumer dignity and choice, consistent implementation of supporting organisational policies and legislations [11,22, 30, 32]. Further exploration of culture change and consistent centralised organisational risk management is needed to assist staff to balance the autonomy, dignity, and risk of residents. [22,25]

ADHERENCE

Several key stakeholders affected the accurate deliverance of prescribed TMDs to residents, including family, friends, and staff. Highlighted within the literature were dominant themes of negative attitudes towards TMDs that influenced resident's attitudes and compliance, and subsequently the nutritional status of residents. This decreased staff's adherence to the production and delivery of prescribed TMDs to residents. [10, 11, 20] Consequently, safety risks, organisational medico legal implications could result from a lack of adherence to the clinically prescribed TMD. [11,17, 20]

The IDDSI, is a standardised framework for TMDs and describes six classifications for food and five for fluid. [8] This evidenced based framework provides organisations with objective, measurable and internationally standardised definition to describe TMDs. The standards can be used to formulate TMDs that can be utilised by all ages, in heterogeneous cultures and care settings. [11] The importance of adopting this international standard, equips organisations to deliver consistent implementation strategies aimed to provide frameworks, reduce confusion, opportunity for errors. [3,11, 17, 21]

Collaboration and consultation with key staff members are integral to changing cultures, attitudes, creating greater buy in, staff self-efficacy and invaluable insight into the barriers and challenges with TMDs. This can aid to improve adherence to the prescribed TMDs and navigate the adoption and standardisation of the IDDSI framework to integrate into specific organisations. [3,18, 22, 23]

COMMUNICATION & DOCUMENTATION

Ineffective staff communication or handover procedures were highlighted within the literature as one of the most prevalent factors for adverse resident incidents and a significant barrier to the accurate delivery of prescribed TMDs. [7,11, 17, 22, 23] the breakdown of communication compromises resident safety and reduces the quality of care provided [7,11, 22, 23] The literature highlighted segregation and ineffective communication between professional and frontline staff [18, 22, 23]. This was especially apparent when changes to TMDs were made, and poor communication resulted in inaccurate delivery of revised prescriptions. Staff were noted to communicate changes within their staff category, but not across the multi-disciplinary team. [7,11, 22] This was highlighted in the literature and related to the misunderstanding of roles, accessibility, and time. These factors have been emphasised with ineffective and accurate documentation of resident's prescribed TMDs. [7,11] Staffing cohesion, with managerial and organisational support fosters a multidisciplinary approach, valuing the role of each staff members. Subsequently promoting more effective open lines of communication to increase resident safety, quality of care provided. [7,17, 22, 25]

KNOWLEDGE & TRAINING

Pivotal for resident safety and quality of care, standardised staff knowledge and training is critical. [11] Lack of training and knowledge are intricately linked, a significant percentage of staff, within the literature, reported that they did not receive any TMD specific training. [11,21, 22, 23] It was found that the lack of training at the organisational level, with staff members calling for onboarding and ongoing training specific to management of TMDs. [11,21, 22, 23] The lack of training affected the lack of knowledge specific to TMDs, leading to discrepancies of standardised knowledge, staff's confidence in managing TMDs and misconceptions of the diets themselves [7,11, 22, 23]. Directed by the Royal Commission into Aged Care Quality and Safety final report, onboarding processes and regular organisational training is needed to equip staff members with the knowledge, confidence, and skills to navigate safe practices with TMDs. [7,11, 23, 30].

FINANCIAL, TIME AND STAFFING PRESSURES

The literature and the Royal Commission into Aged Care Quality and Safety final report highlights that the preparation and delivery of TMDs in RACFs are impacted by limited budget allocations. [11, 17,18, 22, 24, 30] The financial implications of implementing and delivering TMDs are more than normal diets. There are higher costs involved in the equipment required, time to prepare and the time taken to manually feed resident's [10,11,18, 22, 24] These constraints were barriers to offering increased quality, choice, variety and less TMDs being prepared compared to what was prescribed. [11,18, 21,22, 24]

The increased pressure on staff to efficiently run mealtimes conflicted with resident's need for assistance with their TMDs, which resulted in errors in both preparation and delivery [18, 24]. Staff reported that the additional assistance required during mealtimes took away from their capacity to help others and impacted on time and financial resourcing. [11,17, 24] The literature suggests the adequacy of staff resourcing impacts on the standard of care during mealtimes, and the ability for essential staff members to safely assist residents. [11, 21]

In conjunction with the Royal Commission into Aged Care Quality and Safety final report and organisational policies and procedures, analysis and revision of resource allocation is necessary [7,11, 24, 30]. Key stakeholder insights into the needs of the organisation are a key factor to ensure the resources, time and staffing considerations are met to deliver safe and accurate prescribed TMDs. [7,18,17,22, 24, 30]

STAFF ROLES & RESPONSIBILITIES

Perspectives within the literature from staff, family and residents depict ongoing barriers for effective multidisciplinary care, inconsistencies among the standardised roles and responsibilities between what staff believed were included within their role description. [10, 11, 22] Specifically, the role of who prescribed and changed the prescription of TMDs, frontline staff were found to change the resident's diet to a TMD or modify the level of TMD on the spot without SLP consultation. [10,11] This inconsistent understanding of the staffing roles within the multidisciplinary team can result in confusion, inappropriate prescription of TMDs and compromised the safety and quality of care for residents. [10, 11, 22] Breaking down misconceptions, increasing collaboration, clarifying standardised roles and responsibilities can be resolved through the effective onboarding and regular specifically target training of TMDs. [10,11]

IMPLICATIONS FOR PRACTICE

A key purpose of scoping reviews is to identify gaps in the literature, and we have found a distinct gap of knowledge relating to dysphagia management in the literature. A significant number of adults (40-68%) living in RACFs are affected by dysphagia, however there is minimal research investigating the organisational factors that influence the delivery of prescribed TMDs in RACFs [4]. The six key themes highlight the importance of respecting residents' autonomy and quality of life. In managing dysphagia, it is essential to balance dignity and risk by supporting residents' informed choices about their diet. This approach should be more widely accepted, trained, and implemented to enhance their quality of life, even when some risk is involved 11,24, 25, 27, 30]. Guided by the Royal Commission into Aged Care and the Aged Care Quality Standards, organisations should adopt best practices in introducing texture modified diets alongside balancing the dietary preferences of individuals with recommended dysphagia management [30, 32]. A major gap identified was the lack of specific knowledge and training in dysphagia management. It is recommended that consistent and effective training on the safe delivery of texture-modified diets (TMDs) be included in staff onboarding and provided regularly at an organisational level [7,11, 22, 23]

Organisational impacts of budget, time and staffing pressures need to be considered to meet the current standards and the growing need to facilitate safe and support residents prescribed a TMD. [7,11, 18, 22, 25, 30] Overall, a multidisciplinary approach needs to be adopted within RACFs to close the division between professional and frontline staff, this unity will aid to improve the communication and documentation issues that were highlighted, facilitating safer and more accurate delivery of TMDs. [7,17, 22, 25] This multidisciplinary approach should include collaboration with all stakeholders. Managers can encourage continual review and improvement to dysphagia management practices by seeking feedback and input from staff and providing opportunities to all members of the multi-disciplinary team to share their views. [7,18,17,22, 25] This could minimise the factors of staff's adherence to the standardised preparation of TMDs, increase acceptance, create great investment, allow staff to feel more involved in the decision-making process and feel valued and heard [18, 20, 21]. Lastly encouraging a multidisciplinary approach, allows for staff members to understand the individual and important role each discipline plays, additionally creating clear scope of practices to mitigate confusion of perceived roles and responsibilities. [10,17, 20, 28] This study offers insights into strategies for addressing key challenges in adherence to texture modified diets in aged care. The findings also suggest areas for future research aimed at reducing the impact of these challenges and improving the accuracy and safety of delivering prescribed texture-modified diets (TMDs).

CONCLUSION

Based on the evidence identified within this scoping review, it highlighted the significant gap in research that explores the multifactorial factors influence the delivery of prescribed TMDs in RACFs. The aim of this scoping review was to identify of the organisational factors that influence the deliver prescribed TMDs in RACFs. Thirteen studies met the inclusion criteria, they were reviewed and analysed. Six themes were highlighted to be dominating factors that addressed the research aim, 1. autonomy & quality of life, 2. adherence, 3. communication & documentation, 4. knowledge & training, 5. financial, time and staffing pressures, 6. staff roles & responsibilities. Given the current and growing prevalence of individuals in RACFs with dysphagia, further research needs to be conducted to investigate the dominant themes identified to improve the accuracy and safety of the delivery of prescribed TMDs. Recent knowledge from the Royal Commission into Aged Care Quality and Safety can aid RACFs, tailored specifically to the organisations can ensure that they are providing the highest quality of care and standardised practices to ensure the accurate and safe delivery of prescribed TMDs.

STRENGTHS & LIMITATIONS

The strength of this study was to identify a gap in the literature in relation to the organisational factors relating to texture modified diets in aged care and informs future research. A systematic review sits at the top of the evidence hierarchy however scoping reviews are increasingly applied to respond to complex questions and where comparing interventions may be possible or relevant [33]. Limitations and strengths in the final papers included. These related to the study design, methodology and participant characteristics of the thirteen studies included within this scoping review. Multiple studies

included numerous RACFS for the settings of their studies, which broadens the scope, depth, and generalisability of the results. [7,10,18-25] Several studies included residents, friends, and family members additionally to staff to gain numerous perspectives of the delivery of prescribed TMD, expanding the strength and richness of data collected. [22, 23] Several studies were completed either within a small geographical area, single site, or same community and this impacts on the generalisability of the study findings. [11,16, 17] Pownall et al. used focus groups that were led by the RACF managers, and this may have compromised participant views due to the relationship with their manager and consequently impacted the objectivity of this study. [21] A noteworthy limitation of the studies was only one study included managerial perspectives and their understanding of the organisational factors impacting upon TMDs [21].

Australian based studies were those most represented in this scoping review and this limits the generalisability of the results to RACFs outside of Australia. The studies within this review included both residents with dysphagia and residents without, this allowed for comparative methods to deduce factors specific to the accurate delivery of TMDs. The studies included were sourced from multiple databases and the full text reviewed when the abstract was ambiguous, to minimise the risk of missing relevant research. A limitation of this review related to the specificity of the topic and the researcher could have excluded studies that could have identified different perspectives relating to the organisational factors related to the delivery of prescribed TMDs. Furthermore, despite a rigorous search, quality and review methodology, relevant studies may have been excluded.

References

1. The Speech Pathology Association of Australia Ltd. Dysphagia clinical guidelines. 2012 [Accessed 17/11/2021] Available: <https://www. speechpathologyaustralia.org.au/SPAweb/Members/Clinical_ Guidelines/spaweb/Members/Clinical_Guidelines/Clinical_ Guidelines.aspx?hkey=f66634e4-825a-4f1a-910d644553f59140>
2. American College of Gastroenterology. Dysphagia. 2021 [Accessed 10/12/2021] Available: https://gi.org/topics/dysphagia/
3. Wu XS, Miles A, Braakhuis AJ. Texture-Modified Diets, Nutritional Status and Mealtime Satisfaction: A Systematic Review. Healthcare. 2021;9(6):624. Available from: http://dx.doi.org/10.3390/healthcare9060624
4. Aguilera JM, Park DJ. Texture-modified foods for the elderly: Status, technology, and opportunities. Trends in Food Science & Technology. 2016;57:156-64. Available from: https://doi.org/10.1016/j.tifs.2016.10.001
5. The Speech Pathology Association of Australia Ltd. What is a Speech Pathologist? 2021. [Accessed 17/11/2021] Available: https://speechpathologyaustralia.org.au/SPAweb/Resources_for_the_Public/Fact_Sheets/SPAweb/Resources_for_the_Public/Fact_Sheets/Fact_Sheets.aspx?hkey=e0ad33fb-f640-45b1-8a06-11ed2b73f293
6. The Speech Pathology Association of Australia Ltd. Swallowing. 2021. [Accessed 17/11/2021] Available: https://speechpathologyaustralia.org.au/SPAweb/Resources_for_the_Public/Fact_Sheets/SPAweb/Resources_for_the_Public/Fact_Sheets/Fact_Sheets.aspx?hkey=e0ad33fb-f640-45b1-8a06-11ed2b73f293
7. Keller HH, Duizer LM. Keeping Consumers Safe: Food Providers' Perspectives on Pureed Food. Journal of Nutrition in Gerontology and Geriatrics. 2014;33(3):160-78. Available from: https://doi.org/10.1080/21551197.2014.927303
8. International Dysphagia Diet Standardisation Initiative. What is the IDDSI Framework? 2019. [Accessed 12/10/2021] Available https://iddsi.org/IDDSI/media/images/ConsumerHandoutsAdult/Backpage_consumer_handout_Adult_What_is_the_IDDSI_Framework_30Jan2019.pdf
9. Birchall O, Bennett M, Lawson N, Cotton SM, Vogel AP. Instrumental Swallowing Assessment in Adults in Residential Aged Care Homes: A Scoping Review. Journal of the American Medical Directors Association. 2021;22(2):372-9.e6. Available from: https://go.exlibris.link/GDRYmxm8
10. Bennett MK, Ward E, Scarinci N, Waite M. Perspectives on Mealtime Management in Residential Aged Care: Insights from a Cross-Disciplinary Investigation. Journal of Nutrition in Gerontology and Geriatrics. 2014;33(4):325-3. Available from: https://doi.org/10.1080/21551197.2014.963275

11. Hill C, Clapham RP, Buccheri A, Field M, Wong Shee A, Alston L. Assessing adherence and exploring barriers to provision of prescribed texture modifications for dysphagia in a residential aged care facility in rural Australia. International Journal of Speech-Language Pathology. 2021:1-10. Available from: DOI: 10.1080/17549507.2021.1953144
12. Levac D, Colquhoun H, O'Brien KK. Scoping studies: advancing the methodology. Implement Sci. 2010;5,69-. Available from: https://pubmed.ncbi.nlm.nih.gov/20854677
13. Ueshima J, Momosaki R, Shimizu A, Motokawa K, Sonoi M, Shirai Y, et al. Nutritional Assessment in Adult Patients with Dysphagia: A Scoping Review. Nutrients. 2021;13(3):778. Available from: https://www.mdpi.com/2072-6643/13/3/778
14. Rejon-Parrilla JC, Espin J, Epstein D. How innovation can be defined, evaluated and rewarded in health technology assessment. Health Economics Review. 2022;12(1):1. Available from: https://doi.org/10.1186/s13561-021-00342-y
15. Critical Appraisal Skills Program. CASP Checklist. 2021. [Accessed 12/10/2021] Available: <https://casp-uk.net/casp-tools-checklists/>
16. Abbey KL, Wright ORL, Capra S. Menu Planning in Residential Aged Care--The Level of Choice and Quality of Planning of Meals Available to Residents. Nutrients. 2015;7(9):7580-92. Available from: http://dx.doi.org/10.3390/nu7095354
17. Austbø Holteng LB, Frøiland CT, Corbett A, Testad I. Care staff perspective on use of texture modified food in care home residents with dysphagia and dementia. Annals of Palliative Medicine. 2017;6(4):310-8. Available from: https://apm.amegroups.com/article/view/15565
18. Burger C, Kiesswetter E, Alber R, Pfannes U, Arens-Azevedo U, Volkert D. Texture modified diet in German nursing homes: availability, best practices and association with nursing home characteristics. BMC Geriatr. 2019;19(1):284. Available from: https://doi.org/10.1186/s12877-019-1286-9
19. Garcia JM, Edgar Chambers IV, Russell EG, Katt A. Modifying Food Textures: Practices and Beliefs of Staff Involved in Nutrition Care. American Journal of Speech-Language Pathology. 2018;27:1458+. Available from: https://pubmed.ncbi.nlm.nih.gov/30267081/
20. Ilhamto N, Anciado K, Keller HH, Duizer LM. In-House Pureed Food Production in Long-Term Care: Perspectives of Dietary Staff and Implications for Improvement. Journal of Nutrition in Gerontology and Geriatrics. 2014;33(3):210-28. Available from: https://doi.org/10.1080/21551197.2014.927306
21. Pownall S, Barnett E, Skilbeck J, Jimenez-Aranda A, Fowler-Davis S. The Development of a Digital Dysphagia Guide with Care Homes: Co-Production and Evaluation of a Nutrition Support Tool. Geriatrics. 2019;4(3):48. Available from: https://www.mdpi.com/2308-3417/4/3/48
22. Shune SE, Linville D. Understanding the dining experience of individuals with dysphagia living in care facilities: A grounded theory analysis. International Journal of Nursing Studies. 2019;92:144-53. Available from: https://doi.org/10.1016/j.ijnurstu.2019.01.017
23. Ullrich S, Crichton J. Older people with dysphagia: transitioning to texture-modified food. British Journal of Nursing. 2015;24(13):686-92. Available from: https://www.magonlinelibrary.com/doi/abs/10.12968/bjon.2015.24.13.686
24. Wang D, Everett B, Brunero S, Northall T, Villarosa AR, Salamonson Y. Perspectives of residents and staff regarding food choice in residential aged care: A qualitative study. Journal of Clinical Nursing. 2020;29(3-4):626-37. Available from: https://doi.org/10.1111/jocn.15115
25. Bennett MK, Ward EC, Scarinci NA. Mealtime management in Australian residential aged care: Comparison of documented, reported and observed care. International Journal of Speech-Language Pathology. 2015;17(5):451-9. Available from: https://doi.org/10.3109/17549507.2014.987816
26. Keller H, Chambers L, Niezgoda H, Duizer L. Issues associated with the use of modified texture foods. The Journal of nutrition, health & aging. 2011;16(3):195-200. Available from: https://go.exlibris.link/0m1RNPCG
27. Ballesteros-Pomar MD, Cherubini A, Keller H, Lam P, Rolland Y, Simmons SF. Texture-Modified Diet for Improving the Management of Oropharyngeal Dysphagia in Nursing Home Residents: An Expert Review. The journal of nutrition, health & aging. 2020;24(6):576-81. Available from: https://doi.org/10.1007/s12603-020-1377-5
28. Raheem D, Carrascosa C, Ramos F, Saraiva A, Raposo A. Texture-Modified Food for Dysphagic Patients: A Comprehensive Review. International Journal of Environmental Research and Public Health. 2021;18(10):5125. Available from: http://dx.doi.org/10.3390/ijerph18105125
29. Royal Commission into Aged Care Quality and Safety. Dysphagia Management .2019. Accessed [01/02/2022] Available: <https://agedcare.royalcommission.gov.au/media/2916>

30. Royal Commission into Aged Care Quality and Safety. Final Report - Volume 3A: The new system. 2021. [01/02/2022] Available: https://agedcare.royalcommission.gov.au/sites/default/files/2021-03/final-report-volume-3a_0.pdf
31. Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, Shamseer L, Tetzlaff JM, Akl EA, Brennan SE, Chou R. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. bmj. 2021 Mar 29;372.
32 Aged Care Quality and Safety Commission. Quality Standards 2025 https://www.agedcarequality.gov.au/providers/quality-standards/about-quality-standards
33 Peters MD, Marnie C, Colquhoun H, Garritty CM, Hempel S, Horsley T, Langlois EV, Lillie E, O'Brien KK, Tunçalp Ö, Wilson MG. Scoping reviews: reinforcing and advancing the methodology and application. Systematic reviews. 2021 Dec;10:1-6.

APPENDIX: THE INTERNATIONAL DYSPHAGIA DIET STANDARDISATION FRAMEWORK. [8]