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Transparency declaration.

The lead author affirms that this manuscript is an honest, accurate and transparent account of the study being reported. The lead author affirms that no important aspects of the study have been omitted and that any discrepancies from the study as planned have been explained.

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Title. A longitudinal ethnographic study of hospital staffs' attitudes and experiences of change in nutrition care.

Abstract.

Background. Change promotes quality in healthcare, yet adopting change can be challenging. Understanding how change in nutrition care is adopted may support better design and implementation of interventions that aim to address inadequate food intake in hospital. This study **followed the process of change in a healthcare organisation, exploring staffs' attitudes, beliefs and experiences of the implementation of a mealtime intervention.**

Methods. A total of 103 hours of fieldwork were conducted in this longitudinal ethnographic study **over a 4-month period.** Over 170 staff participated, with data captured using observation, interviews and focus groups. Data were analysed using an inductive, thematic approach, **informed by implementation theory.**

Results. Attitudes and experiences of change in nutrition care are described by **three** themes: (1) staff recognised the inevitability of change; (2) staff cooperated with the intervention, recognising potential value in the intervention to support patient care, **where increased** awareness of their mealtime behaviours supported adopting practice changes; and (3) some staff were able to reflect on their practice after implementing the intervention, others could not. A model illustrating the interconnectedness of factors influencing implementation emerged from the research, guiding future nutrition care intervention design and supporting change.

Conclusions. The requirement to address staffs' underlying perceptions about the need to change should not be underestimated. Increased efforts to market the change message to

specific staff groups and physical behavioural reinforcement strategies are needed. Nutrition care into the future should focus on helping staff feel positive about making practice changes.

Keywords. Change, experience, hospital staff, nutrition care, qualitative research

Introduction.

Change is inevitable in healthcare, with new knowledge continually generated through scientific inquiry. Change can promote healthcare quality through the refinement of systems, processes and practices relating to all aspects of patient care.⁽¹⁾ Knowing which interventions work is important to support quality patient care and effective use of the healthcare dollar. But perhaps more important than knowing which interventions work, is understanding why they do or do not work. We know from implementation theory that adopting change can be challenging in healthcare settings.^(2; 3) Numerous conceptual frameworks have organised the factors at structural (e.g. political, social or economic climate), organisational (e.g. leadership, culture), provider (e.g. knowledge and confidence of healthcare professionals), patient (e.g. attitudes, adherence) and innovation (e.g. relative advantage of the innovation) levels that are known to influence implementation success.^(2; 4; 5) The complex system in which healthcare is delivered is key to influencing change to practice.

Nutrition care is an important part of healthcare in hospital and its delivery by dietetic professionals has changed considerably in recent times. For example, implementation of extended and advanced scope of practice models to improve efficiency within the public healthcare system,^(6; 7) and nutrition care process and standardised terminology for quality care and clear communication.^(8; 9) New approaches in nutrition care have also impacted other healthcare staff. This has been in recognition of the need for shared responsibility to address complex nutrition-related problems, like malnutrition.^(10; 11; 12) For example, nutrition screening by nurses to identify at-risk patients,⁽¹³⁾ and patient-centred foodservice models and trained feeding assistants to improve food intake and satisfaction.^(14; 15) Indeed, the whole healthcare team may be called upon to support interventions that tackle multiple barriers to adequate nutritional intake.^(10; 16)

Surprisingly, there is little evidence on how change in nutrition care in hospital is adopted. This knowledge is important when implementing multifaceted interventions within complex healthcare systems that require input from numerous clinical and support service staff.

Protected Mealtimes is one such intervention that seeks to improve patients' food intake and mealtime experience through a range of strategies relating to mealtime practice and environment.⁽¹⁷⁾ **These include limiting non-urgent ward activities at mealtimes, reducing unnecessary interruptions to patients, creating a relaxed mealtime atmosphere, and providing mealtime assistance.** Understanding how staff think about and cope with change in nutrition care is important so that researchers, clinicians and policy makers may design and implement interventions targeting mealtime practice and environment that are more likely to succeed in combatting unresolved problems, like malnutrition.⁽¹⁸⁾

This study was part of a broader research project exploring hospital mealtimes before, during and after a mealtime intervention (Protected Mealtimes) was implemented as part of a clinical trial.⁽¹⁹⁾ The 4-week trial across three wards determined the effect of the mealtime intervention on nutritional outcomes. Implementation strategies included staff education (3x1 hour sessions per ward), changes to the physical environment and meal delivery schedules, and executive oversight. Intervention implementation followed published guidelines,⁽¹⁷⁾ with staff asked to make practice changes to support patients' food intake and mealtime experience, including closing ward doors, clearing tray tables, positioning patients before meal service, and prioritising food at mealtimes. Tasks like medication administration, observations and bed-making were to be avoided at mealtimes. Trial data collectors stationed around the ward monitored implementation fidelity. Studies describing mealtime culture and environment, staff practices and relationships, and volunteer and visitor contributions before intervention implementation are reported elsewhere.^(11; 20; 21) Findings of the ethnographic investigation during intervention implementation have not been published to date. This study was conducted alongside the trial and aimed to **follow the process of change in a healthcare organisation, exploring staffs' attitudes, beliefs and experiences of the implementation of a mealtime intervention.**

Methods.

Study design. This longitudinal ethnographic study draws upon data collected **over a 4-month period** before and during the implementation of a mealtime intervention, referred to as datasets 1 and 2, respectively. Situated within the interpretivist paradigm, this study sought to find meaning in staffs' perspectives and experiences of mealtimes and the mealtime intervention, building an appreciation for why changing nutrition care practice is difficult in hospital.^(22; 23) The ethnographic approach supported the development of rapport with

participants, promoting a nuanced understanding of attitudes, practices, and the experience of change during intervention implementation.^(24; 25) The longitudinal design enabled changes over time to be seen and alternative explanations to be explored.

Participants and setting. Two, 32-bed subacute care wards from one Australian healthcare network were selected. Both wards were part of the trial where the mealtime intervention was implemented.⁽¹⁹⁾ Meals were plated in the kitchen, then taken to the ward and passed to patients by foodservice staff. Nurses and/or volunteers provided mealtime assistance. The trial found modest improvements in mealtime assistance and encouragement with the intervention, but no significant difference in patients' energy or protein intake.⁽¹⁹⁾

Participants were over 170 staff present at mealtimes or involved in nutrition care. All professions (nursing, dietetics, foodservices and others) and levels of experience (student through to manager) were included. Convenience, purposive and snowball sampling were used to recruit staff involved in or impacted by intervention implementation.

Data collection. A total of 103 hours of fieldwork were conducted by the first author, a dietitian with qualitative research experience and interest in improving nutrition care. The researcher was not previously known to participants. A combination of data collection techniques was used to capture observed and reported data, promoting an in-depth understanding of mealtime practice and intervention implementation. Data were collected **by the first author over a 4-month period** using observation and interviews for datasets 1 and 2. Additionally, focus groups contributed to dataset 2 (**Table 1**).

Observation focused on the mealtime behaviours and practices of more than 165 staff. **Observation was conducted across breakfast, lunch and dinner on weekdays and weekends, from different positions on the ward, such as the nurses' station, corridor and dining room. Observation began prior to meal service, usually concluding when meal trays were collected. Repeated observation supported immersion on the ward, pattern identification (e.g. activities, interactions), and to check evolving interpretations.** Data were recorded as handwritten fieldnotes **in an A4 notebook**, then reconstructed into 188 pages of single-spaced, typed fieldnotes.

Interviews with individual and groups of staff focused on hospital and mealtime roles, mealtime environment, and the impact of the mealtime intervention. Interviews were conversational or semi-structured in nature, depending on interviewee availability and interview purpose. Potential interviewees were identified **using convenience, purposive and snowball sampling** and **verbally** consented, **with** data recorded **using an audio-recorder or as handwritten fieldnotes (e.g. at the participant's request or spontaneous conversation).**^(11; 20; 21) **Key points were relayed back to interviewees to check understanding and obtain further insight. Follow-up interviews served to clarify understanding or for interviewees to provide further information.**

Focus groups were conducted with staff in the two weeks following trial conclusion. This allowed staff to experience and then reflect on intervention implementation. A moderator's guide was used, with questions designed to elicit different accounts of the implementation experience (Figure 1). Focus groups enabled discussion and debate amongst participants,⁽²⁶⁾ who were grouped by profession (nurses, foodservice staff), or combined where there were fewer numbers (allied health and medical staff). Recruitment was through email and verbal invitation, with refreshments offered as incentive to participate. **Focus groups were conducted in the workplace, often between shifts or during breaks to fit in with staff availability.** Informed consent was obtained prior to participation, with data audio-recorded and transcribed verbatim. Additional interviews were conducted to supplement focus group data, where voices were not adequately captured during focus groups. **Approximately half of the participants contributed to both datasets, either through observation, interview and/or focus group.**

Data analysis. An inductive, thematic approach was used to analyse both datasets, concentrating on staffs' attitudes and beliefs towards change in nutrition care and experience of intervention implementation. Development of the code list for dataset 1 followed published literature⁽²⁷⁾ and is described elsewhere.^(11; 20; 21) Two researchers independently checked suitability of the code list for dataset 2, coding a sample of interview and focus group transcripts and fieldnotes collected during implementation. **Consensus was achieved through discussion.** Each dataset was analysed together, sequentially, then compared and contrasted, as were data from different professions. Using the same code list for both datasets enabled changes to be seen within and between codes over time. Focus groups were additionally analysed using techniques described by Barbour,⁽²⁶⁾ Krueger and Casey,⁽²⁸⁾ and

Willis et al.,⁽²⁹⁾ including matrix development, constant comparison and attending to individual voices as well as participant interactions. Data analysis was supported by NVivo software (**Version 11, QSR International**), memo writing and reflective journaling, with emergent themes related to the experience of change discussed amongst the research team. **Implementation theory was used to make sense of the findings after the completion of coding, in the context of mealtime interventions and nutrition care.**^(2; 4; 5)

Ethics. Ethical approval was obtained from the university (CF15/2929–2015001205) and healthcare network (LR76/2015) human research and ethics committees. **Both wards were granted a waiver of consent for the trial.** Posters about the ethnographic study were displayed and staff information sessions held prior to data collection. **The researcher was identified using university name badge and lanyard, and explained the nature and purpose of attending the ward when asked. Consent was not sought for observation, reducing the likelihood of changed behaviour.**⁽²⁴⁾ Participants' identities were protected by using unique identifiers instead of names.

Results.

Over 170 staff participated **across both datasets**, representing professions of nursing, medicine, allied health (dietitians, speech pathologists and others), food and support services, and administration. Perspectives and experiences were attained from 81 staff through interview and/or focus group participation.

Attitudes and beliefs towards change in nutrition care and the experience of change when a mealtime intervention was implemented are described by **three** themes: (1) **Inevitability of change**; (2) cooperation with **and experience of the change**; and (3) reflecting on change. We propose a model based on our findings, drawing on implementation theory,^(2; 4; 5) to illustrate the interconnectedness of intervention, individual, organisational and structural factors influencing mealtime intervention implementation in hospital (Figure 2), **and describe the detail within each theme below.**

Theme 1: Inevitability of change

The constantly evolving nature of the **nursing** profession **meant that nurses frequently experienced** change in workforce, leadership and practice. Nurses **understood** they must adopt change to improve patient care. They saw themselves as adaptive and open-minded

towards change, willing to embrace change if it was a “positive change” and something their colleagues supported.

“You cannot be stuck in one area or trend. [There are] always going to be changes, which is a matter of adapting and adjusting, and of course if the focus is for patients, then we have to make the change.” (MIC, associate nurse unit manager)

Dietitians also reflected on workforce and leadership changes, describing how staff turnover impacts efforts to improve nutrition care. For example, by hampering change progress and requiring continued attention to sustain change.

“...your “change person” might leave, and so you have to – not start right from scratch – but it’s a constant evolving process.” (DT6, dietitian)

Nurses met the change that was implementing the mealtime intervention with apprehension. They **explained** how it would be a logistical challenge to enact the requested practice changes, especially in the morning, where there were already considerable time pressures to wake and ready patients, and give medications.

Interviewer: Can you remember how you felt about Protected Mealtimes when you first heard about it?

SGN: That it was going to be really difficult.

Interviewer: [Thinking] how is this going to work in practice?

SH: I don't think it did, did it?

SGN: No.

SH: It couldn't.

SGN: Not in the mornings.

SH: No.

FA: We can't stop in the mornings. (Nurses, Focus Group 5)

Foodservice staff at one site also **held** reservations about the intervention, where implementation as part of the trial required breakfast service be delayed by 15 minutes.

Foodservice staff **explained** how this would have “huge ramifications” for foodservice operations, which ran to a tight schedule, evoking a sense of panic amongst foodservice staff.

In contrast, allied health staff **advised** that the intervention should be part of standard practice and that it was a “strange idea” that it needed to be enforced.

Theme 2: Cooperation with **and experience of the change**

Some staff **changed** their practice to support the intervention. For example, nurses conducted observations before rather than during breakfast, and doctors tried to finish ward rounds before lunch. However, overall, the intervention had little observable impact on staffs’ mealtime activities. Dietitians and speech pathologists continued meal-related tasks (meal rounds, swallow assessments) that were considered positive interruptions. Social workers and occupational therapists continued to focus on administrative tasks, rather than assessments, during meal periods. Nurses continued to assist patients with meal- (positioning, encouragement, feeding) and non-meal-related tasks (medications, observations, personal hygiene).

She [NNK, nurse] moves to Room 3, “How are we going over here?” The elderly female patient complains there is too much food on the meal tray. NNK suggests ordering a smaller meal at dinner. NNK, “Then it’s not too much for you.” [Thoughtful, sympathetic tone]. NNK enters Room 4, “Are we right in here? [Notices the patient has eaten most of their meal]. Oh, you’ve eaten well! Good on you!” (Fieldnote extract, 27th October 2015, 5:25pm)

Nurses justified the lack of change in some nursing practices during implementation, **perceiving** they were already protecting mealtimes. Other nurses **commented** to patients how they would see them after the meal, revealing attempts to avoid any patient contact – positive or negative – at mealtimes. There were no observed attempts from doctors to chart medications away from mealtimes. The mealtime role of foodservice staff was largely unchanged (meal delivery, opening packaging). However, improvements in their workflow efficiency were **realised**, with fewer people obstructing the meal trolley’s path during implementation.

Administration and support service staff **found** it difficult to cooperate with the intervention, as they did not understand the requested practice changes. They conceded they did not attend an information session about the trial, and that news of the intervention was not communicated to them. Administration and support service staff **were** confused about what they should tell visiting family members and which tasks they could complete and when, relying on direction and clarification from nurses and colleagues.

"[The intervention was a] big surprise for me, because nobody said anything to me." (OM, support service staff)

Closing ward doors to reduce noise during mealtimes also confused maintenance and support service staff and visitors, who did not know why the doors were closed and whether they could enter. This was corroborated by nurses, who **noted** that it was quieter and less frenetic with the doors closed, with fewer people coming and going.

Changes that were made during implementation were not reported to be sustained beyond the trial. Allied health staff **observed** mealtime interruptions by nurses creeping back in towards the end of the trial, and doctors admitted reverting to "business as usual" post-trial, with ward rounds overlapping lunch. Some participants **were** disappointed at this, unable to fathom why other staff would not want to continue supporting the mealtime intervention.

DTI: [Another staff member] said, "Oh, it's all over. You can go in [to patients' rooms] anytime now. It's all finished..." I actually reminded them, "No, just because the study's over, we still need to make sure that meals aren't interrupted, and that we do make sure that it's a positive experience for them [patients]." We shouldn't be just going in anytime...
FGB: A bit awkward, wasn't it?

DTI: It was almost like a reversal... "The study's over, so let's keep interrupting patients." (Dietitian and social worker, Focus Group 4)

Allied health, medical and nursing staff **explained** how the presence of trial data collectors reminded them to support the intervention. This was particularly important for allied health and medical staff, who **were more** aware of their non-meal-related activities, like delivering application forms or completing assessments.

302
303 *"I didn't actually realise how much I was interrupting the patients until*
304 *people [trial data collectors] watched me like a hawk!" (DD, doctor,*
305 *Focus Group 4)*

306
307 Although foodservice staff **were** uncomfortable being watched by trial data collectors, they
308 did not report this leading to change in mealtime practice.

309
310 Patient utilisation of the dining room was identified as another reminder to avoid negative
311 interruptions. Doctors **explained** how it was inconvenient and inappropriate to conduct
312 assessments in this social and public environment, and as such, avoided this at mealtimes.
313 This was corroborated by a physiotherapist, who admitted it was easier to forget that it was
314 time to eat when patients received meals in their room. Nurses **acknowledged** how the ward
315 architecture at one site contributed to the sense of concealment, with room layout designed
316 for privacy.

317
318 Being held to account by colleagues **supported** practice change. The intervention **gave** staff
319 confidence to approach other staff at mealtimes, encouraging them to stop negatively
320 interrupting patients. Nurses **admitted** how change would be easier with greater patient and
321 family engagement. For example, if patients prioritised meals and eating, rather than just
322 taking medications.

323 324 Theme 3: Reflecting on change

325 Staff feedback on the experience of intervention implementation tended to focus on other
326 professions, rather than looking at their own practice and profession, and taking personal
327 responsibility for their actions. For example, some nurses **explained** that their mealtime
328 activities did not interrupt patients, negating the need to change their practice.

329
330 *"The patients are with us one hundred percent of the time at mealtimes.*
331 *They're more likely to get interrupted by ancillary staff, not nursing staff,*
332 *because we're, you know, doing their meds or taking them to the toilet.*
333 *We're tending to their actual needs. The interruptions often are external,*
334 *from other disciplines." (FGL, nurse, Focus Group 1)*

Occasions of doctors not adhering to the intervention were recounted:

"I noticed one of the doctors was admitting a patient at a mealtime. Like their [the patient's] meal had arrived, and they went in and admitted them."

(NK, nurse, Focus Group 2)

In contrast, managers from different departments readily **reflected** on their team's practice and performance. They identified opportunities to improve patient care and service delivery, both within their team and in collaboration with other teams. Managers highlighted the importance of viewing projects (e.g. falls prevention, Protected Mealtimes) as a collective and aligning program priorities, so that the delivery of one project did not negatively impact the outcomes of another.

Time was identified as a factor influencing change. For nurses, it was about needing time to practice the new approach, finding a way to make it work. In contrast, allied health staff applauded the abrupt nature of intervention implementation for the trial, **explaining** this was a good way to approach change.

Reflections on intervention implementation centred on the inconveniences of restrictions and what failed. For example, nurses recounted being held up in team meetings, unable to maintain their usual mealtime routine. There were exceptions, however, where medical and allied health staff, and nurses to a lesser extent, described feeling proud of the positive changes they had made to support patients at mealtimes.

Discussion.

This study has identified the contextual factors that are important to address when implementing change in complex environments. The findings highlight the interplay between individual (staff) and organisational factors relating to the implementation of the intervention, Protected Mealtimes.

Research has shown that intervention implementation is influenced by staff engagement, which is underpinned by their understanding of the need for change, communication and collaboration.⁽³⁰⁾ Although information sessions were conducted for the trial,⁽¹⁹⁾ the findings of this study indicate that some staff were unaware of how and why they needed to change

their practice. **This highlights how a lack of information can limit staffs' ability to adapt to change, and how novel ways to engage those who do not follow standard**

communication methods are needed. Difference in opinion on what constituted a negative interruption also contributed, with some staff continuing their usual practice, believing their non-meal-related activities did not detract from nutrition care. This shows an opportunity for greater leadership support and communication to ensure the message around the need to change is understood by staff.⁽³¹⁾ Intervention ownership and implementation engagement may have been stronger had staff conceived the idea of intervention implementation, as in action research approaches.⁽³²⁾ There is a need for the interprofessional healthcare team, together with managers, to take ownership of change to improve nutrition care in hospital.

The findings of this study show how being watched can powerfully impact the practice of some staff. The presence of trial data collectors stationed around the ward reminded medical and allied health staff to avoid negative interruptions at mealtimes, appealing to their desire to be well-meaning.^(4; 5) Being watched had less of an impact on nurses who, although acknowledging the importance of nutrition and inevitability of change, made fewer practice changes during implementation.

The underlying influence of staff attitudes towards change on their practice should not be discounted. It was evident that some but not all nurses were committed to changing their practice to support the intervention that had the potential to improve nutrition care. Historical approaches to nursing practice and the focus on patient safety have led to a routine and structured approach at mealtimes, where sequencing involves observations and medications, before mealtime assistance and encouragement. Nurses may have felt conflicted to diverge from this traditional method,⁽³³⁾ for fear of compromising patient care. **Our findings show variation in staffs' cooperation with and experience of change, highlighting** how more needs to be done to help nurses feel positive about changing their mealtime practice.⁽³⁴⁾ Dietitians need to take a leadership role within interprofessional teams when changing nutrition care, understanding and supporting their teams through implementation challenges.⁽³⁵⁾ Efforts need to focus on building staffs' confidence to change their mealtime practice based on current evidence of what works, and recognising and rewarding achievements,^(33; 34) with acknowledgment for the complex system in which the change is occurring.⁽³⁶⁾ Uptake of leadership training opportunities may help build capacity for dietitians to drive effective change within healthcare systems.^(37; 38; 39) The findings of this

study suggest the focus should be on developing the change agenda, **increasing awareness**, reducing resistance to change and helping staff cope with and accept change.⁽⁴⁰⁾ Securing executive support is important, promoting the success and sustainability of change.⁽⁴¹⁾ Leading and coordinating teams of staff to address complex health issues may help to extend the reach, influence and impact of the nutrition and dietetics profession into the future.^(37; 38; 39)

Greater attention and investment in change may require dietitians to shift focus from direct patient care to system-level intervention, to address the underlying factors impacting food intake.^(42; 43) This study draws upon implementation theory to highlight the interconnectedness of intervention, individual and organisational factors influencing the success of mealtime intervention implementation in hospital (Figure 2). Interventions designed to improve nutrition care will need to draw upon complexity theory to understand the interaction of these factors, targeting multiple factors at multiple levels within foodservice and healthcare systems.^(18; 41) Interventions that fail to consider how they influence and are influenced by other system components, including programs, personnel and practices, may be less likely to succeed.^(21; 37) Factors at the patient/**volunteer**/visitor and structural levels should be further explored, such as early and increased patient engagement,⁽⁴⁴⁾ and political and socioeconomic drivers of policy and practice in nutrition care.⁽⁴⁵⁾

Employing an ethnographic approach was a notable strength of this study, enabling the implementation experience to be explored as it unfolded.⁽⁴⁶⁾ Extended fieldwork and multiple data collection techniques captured diverse reported and observed data, enabling comparison of attitudes and behaviours. Including different professions provided a comprehensive view on how change in nutrition care is received by the broader healthcare system.

Limitations are that data were collected by one researcher with a dietetics background. Collaborating with researchers from other professions may have enriched insight into the impact of change on different staff groups.^(47; 48) Understanding of the implementation experience may have been limited by the researcher's positioning as an observer, rather than a participant delivering the intervention,⁽⁴⁹⁾ **and staffs' limited availability for extended focus groups.** Future research should investigate staffs' experience of change in nutrition care, where changes are initiated by staff themselves, as in action research approaches. Additionally, whether these co-design approaches support more effective change.⁽³²⁾

Conclusion.

Interventions designed to improve nutrition care should target multiple barriers to adequate food intake, with consideration for foodservice and healthcare system integration.

Approaches to change nutrition care in hospital should not underestimate the requirement to address staffs' underlying perceptions about the need to change, to promote commitment from the outset. Increased efforts to market the change message to specific staff groups and physical behavioural reinforcement strategies are needed to support the successful adoption of change. Nutrition care into the future should focus on ways to help staff feel positive about making practice changes to nurture continued engagement and foster a sense of pride in achievements, and acknowledge the complex system in which change in nutrition care occurs.

Transparency declaration.

The lead author affirms that this manuscript is an honest, accurate and transparent account of the study being reported. The lead author affirms that no important aspects of the study have been omitted and that any discrepancies from the study as planned have been explained.

References.

1. Ferlie EB & Shortell SM (2001) Improving the quality of health care in the United Kingdom and the United States: A framework for change. *Milbank Q* **79**, 281-315.
2. Chaudoir SR, Dugan AG & Barr CH (2013) Measuring factors affecting implementation of health innovations: A systematic review of structural, organizational, provider, patient, and innovation level measures. *Implement Sci* **8**, 22.
3. Cochrane LJ, Olson CA, Murray S et al. (2007) Gaps between knowing and doing: Understanding and assessing the barriers to optimal health care. *J Contin Educ Health Prof* **27**, 94-102.
4. Damschroder LJ, Aron DC, Keith RE et al. (2009) Fostering implementation of health services research findings into practice: A consolidated framework for advancing implementation science. *Implement Sci* **4**, 50.
5. Harvey G & Kitson A (2016) PARIHS revisited: From heuristic to integrated framework for the successful implementation of knowledge into practice. *Implement Sci* **11**, 33.
6. Yandell R, Chapman M, O'Connor S et al. (2018) Post-pyloric feeding tube placement in critically ill patients: Extending the scope of practice for Australian dietitians. *Nutr Diet* **75**, 30-34.

7. Matthews KL, Palmer MA & Capra SM (2018) Dietitians' opinions regarding refeeding syndrome, clinical guidelines and extended scope of practice. *Nutr Diet* **75**, 397-405.
8. Hammond MI, Myers EF & Trostler N (2014) Nutrition care process and model: An academic and practice odyssey. *J Acad Nutr Diet* **114**, 1879-1894.
9. Swan WI, Vivanti A, Hakel-Smith NA et al. (2017) Nutrition care process and model update: Toward realizing people-centered care and outcomes management. *J Acad Nutr Diet* **117**, 2003-2014.
10. Bell JJ, Young A, Hill J et al. (2018) Rationale and developmental methodology for the SIMPLE approach: A Systematised, Interdisciplinary Malnutrition Pathway for implementation and Evaluation in hospitals. *Nutr Diet* **75**, 226-234.
11. Ottrey E, Porter J, Huggins CE et al. (2019) Ward culture and staff relationships at hospital mealtimes in Australia: An ethnographic account. *Nurs Health Sci* **21**, 78-84.
12. Tappenden KA, Quatrara B, Parkhurst ML et al. (2013) Critical role of nutrition in improving quality of care: An interdisciplinary call to action to address adult hospital malnutrition. *J Acad Nutr Diet* **113**, 1219-1237.
13. Poulia K-A, Klek S, Doundoulakis I et al. (2017) The two most popular malnutrition screening tools in the light of the new ESPEN consensus definition of the diagnostic criteria for malnutrition. *Clin Nutr* **36**, 1130-1135.
14. McCray S, Maunder K, Krikowa R et al. (2018) Room service improves nutritional intake and increases patient satisfaction while decreasing food waste and cost. *J Acad Nutr Diet* **118**, 284-293.
15. Roberts HC, De Wet S, Porter K et al. (2014) The feasibility and acceptability of training volunteer mealtime assistants to help older acute hospital inpatients: The Southampton mealtime assistance study. *J Clin Nurs* **23**, 3240-3249.
16. Young AM, Mudge AM, Banks MD et al. (2013) Encouraging, assisting and time to EAT: Improved nutritional intake for older medical patients receiving protected mealtimes and/or additional nursing feeding assistance. *Clin Nutr* **32**, 543-549.
17. Hospital Caterers Association (2004) Protected mealtimes policy.
<http://www.hospitalcaterers.org/media/1817/pmd.pdf> (accessed 20th November 2018)
18. Young AM (2015) Solving the wicked problem of hospital malnutrition. *Nutr Diet* **72**, 200-204.
19. Porter J, Haines TP & Truby H (2017) The efficacy of Protected Mealtimes in hospitalised patients: A stepped wedge cluster randomised controlled trial. *BMC Med* **15**, 25.

20. Ottrey E, Palermo C, Huggins CE et al. (2018) Exploring staff perceptions and experiences of volunteers and visitors on the hospital ward at mealtimes using an ethnographic approach. *J Clin Nurs* **27**, e1571-e1579.
21. Ottrey E, Porter J, Huggins CE et al. (2018) "Meal realities" — An ethnographic exploration of hospital mealtime environment and practice. *J Adv Nurs* **74**, 603-613.
22. Harris JE, Gleason PM, Sheean PM et al. (2009) An introduction to qualitative research for food and nutrition professionals. *J Am Diet Assoc* **109**, 80-90.
23. Schwandt TA (1998) Constructivist, interpretivist approaches to human inquiry. In *The landscape of qualitative research: Theories and issues*, pp. 118-137 [N Denzin and Y Lincoln, editors]. Thousand Oaks: SAGE Publications.
24. Angrosino M (2007) *Doing ethnographic and observational research*. London: SAGE Publications, Inc.
25. Fetterman D (2010) *Ethnography: Step-by-step*. 3rd ed. Thousand Oaks, California: SAGE Publications, Inc.
26. Barbour R (2007) *Doing focus groups*. Thousand Oaks, California: SAGE Publications Inc.
27. Braun V & Clarke V (2006) Using thematic analysis in psychology. *Qual Res Psychol* **3**, 77-101.
28. Krueger RA & Casey MA (2015) *Focus groups: A practical guide for applied research*. 5th ed. New Delhi, India: SAGE Publications Inc.
29. Willis K, Green J, Daly J et al. (2009) Perils and possibilities: Achieving best evidence from focus groups in public health research. *Aust N Z J Public Health* **33**, 131-136.
30. Laur C, Valaitis R, Bell J et al. (2017) Changing nutrition care practices in hospital: A thematic analysis of hospital staff perspectives. *BMC Health Serv Res* **17**, 498.
31. Grol R & Grimshaw J (2003) From best evidence to best practice: Effective implementation of change in patients' care. *Lancet* **362**, 1225-1230.
32. Bradbury H & Reason P (2003) Action research: An opportunity for revitalizing research purpose and practices. *Qual Soc Work* **2**, 155-175.
33. Williams B, Perillo S & Brown T (2015) What are the factors of organisational culture in health care settings that act as barriers to the implementation of evidence-based practice? A scoping review. *Nurse Educ Today* **35**, e34-e41.
34. Rycroft-Malone J (2004) The PARIHS framework-A framework for guiding the implementation of evidence-based practice. *J Nurs Care Qual* **19**, 297-304.

35. Dickinson A, Welch C & Ager L (2008) No longer hungry in hospital: Improving the hospital mealtime experience for older people through action research. *J Clin Nurs* **17**, 1492-1502.
36. Grol R & Wensing M (2004) What drives change? Barriers to and incentives for achieving evidence-based practice. *Med J Aust* **180**, S57-60.
37. Kicklighter JR, Dorner B, Hunter AM et al. (2017) Visioning report 2017: A preferred path forward for the nutrition and dietetics profession. *J Acad Nutr Diet* **117**, 110-127.
38. Hickson M, Child J & Collinson A (2018) Future dietitian 2025: Informing the development of a workforce strategy for dietetics. *J Hum Nutr Diet* **31**, 23-32.
39. Boocock RC & O'Rourke RK (2018) Workplace learning and career progression: Qualitative perspectives of UK dietitians. *J Hum Nutr Diet* **31**, 704-711.
40. Oreg S, Vakola M & Armenakis A (2011) Change recipients' reactions to organizational change: A 60-year review of quantitative studies. *J Appl Behav Sci* **47**, 461-524.
41. Conchin S & Carey S (2018) The expert's guide to mealtime interventions - A Delphi method survey. *Clin Nutr* **37**, 1992-2000.
42. Rollins C & Dobak S (2018) Creating a great patient experience: Improving care with food and nutrition services. *J Acad Nutr Diet* **118**, 805-808.
43. Silver HJ, Pratt KJ, Bruno M et al. (2018) Effectiveness of the Malnutrition Quality Improvement Initiative on practitioner malnutrition knowledge and screening, diagnosis, and timeliness of malnutrition-related care provided to older adults admitted to a tertiary care facility: A pilot study. *J Acad Nutr Diet* **118**, 101-109.
44. Beck M, Birkelund R, Poulsen I et al. (2017) Supporting existential care with protected mealtimes: Patients' experiences of a mealtime intervention in a neurological ward. *J Adv Nurs* **73**, 1947-1957.
45. Baker P, Brown AD, Wingrove K et al. (2019) Generating political commitment for ending malnutrition in all its forms: A system dynamics approach for strengthening nutrition actor networks. *Obes Rev*, 1-15.
46. Ottrey E, Jong J & Porter J (2018) Ethnography in nutrition and dietetics research: A systematic review. *J Acad Nutr Diet* **118**, 1903-1942.e1910.
47. Giacomini M (2004) Interdisciplinarity in health services research: Dreams and nightmares, maladies and remedies. *J Health Serv Res Policy* **9**, 177-183.
48. Greckhamer T, Koro-Ljungberg M, Cilesiz S et al. (2008) Demystifying interdisciplinary qualitative research. *Qual Inq* **14**, 307-331.
49. Spradley JP (1980) Participant observation. New York: Holt, Rinehart and Winston.

Table 1. Summary of data collected for longitudinal ethnographic study

	Dataset 1	Dataset 2	Total
Fieldwork	67 hours	36 hours	103 hours
Observation	35 episodes (55-255min)	33 episodes (45-105min)	68 episodes (45-255min)
Interviews (individual and group)	62 interviews (3-84min*)	16 interviews (5-44min*)	78 interviews (3-84min*)
Focus groups	-	8 focus groups with 39 participants (4-7 participants per group; 16-38min, mean 29min)	8 focus groups with 39 participants (4-7 participants per group; 16-38min, mean 29min)

*Length is reported for audio-recorded interviews only.

- How did you find the experience of Protected Mealtimes on the ward? Prompts: what was easy/difficult about the intervention or its implementation?
- How did Protected Mealtimes affect you? Prompts: role, morale, behaviour, work patterns, interaction with patients/visitors/other staff.
- Can you describe any changes to the mealtime environment or the way things work that was brought about by Protected Mealtimes? Prompts: changes felt by patients/visitors/other staff.
- What would make future foodservice system changes easier to adopt?

1 **Figure 1.** Focus group questions to explore staffs' experiences of implementing the mealtime
2 intervention.

Figure 2. Model constructed using implementation theory to illustrate the interconnectedness of intervention, individual, organisational and structural factors influencing mealtime intervention implementation in hospital.^(2; 4; 5) Factors presented in the unshaded segments (**implementation** of Protected Mealtimes; individuals' **cooperation with and experience of change** – staff; organisational context **and inevitability of change**) reflect the findings of this study. Intervention factors are presented at the core, for example, perceptions that Protected Mealtimes would improve patient care, and expectations that implementation would be a logistical challenge. Individual factors, for example, include staffs' confidence to change their practice, and taking personal responsibility for their actions. Organisational factors, for example, include compatibility of Protected Mealtimes with existing hospital and mealtime routines and schedules, and communication about the change. Shaded segments (individuals' **cooperation with and experience of change** – patients, **volunteers** and visitors; structural context) were beyond the scope of this study, highlighting areas for future research. **Reflecting on change extends across multiple levels of the model.**

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