RESEARCH PAPER

A qualitative exploration of patients' experiences with and perceptions of recommencing feeding after colorectal surgery

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early oral feeding, enhanced recovery after surgery, perioperative nutrition care, person-centred care, post-operative nutrition care.

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Abstract

Background: Many patients who undergo lower gastrointestinal surgery neither recommence feeding within timeframes outlined by evidence-based guidelines, nor meet their nutrition requirements in hospital. Given that the success of timely and adequate post-operative feeding is largely reliant on patient adherence, the present study explored patients' perceptions of recommencing feeding after colorectal surgery to determine areas of improvement to meet their needs and expectations.

Methods: This qualitative study involved one-on-one, semi-structured interviews with patients receiving care after colorectal surgery in an Australian tertiary teaching hospital. Purposive sampling was used to ensure maximal variation in age, sex, procedural type and post-operative nutrition care experience. Interviews were audio recorded, with data transcribed verbatim before being thematically analysed. Emergent themes and subthemes were discussed by all investigators to ensure consensus of interpretation.

Results: Sixteen patients were interviewed (female 56%; age 61.5 ± 12.3 years). Three overarching themes emerged from the data: (i) patients make food-related decisions based on ideologies, experience and trust; (ii) patients appreciate the opportunity to participate in their nutrition care; and (iii) how dietary information is communicated influences patients' perceptions of and behaviours towards nutrition.

Conclusions: Enabling patients to select from a wide range of foods from post-operative day 1 (by prescribing an unrestricted diet in line with evidence-based practice guidelines) in conjunction with delivering clear, simple and encouraging dietary-related information may facilitate patient participation in care and increase oral intakes among patients who have undergone colorectal surgery.

Introduction

Over the past decade, the Enhanced Recovery After Surgery (ERAS) society and the European Society for Clinical Nutrition and Metabolism (ESPEN) have incorporated post-operative feeding recommendations into evidence-based guidelines for colorectal, rectal and pelvic patients^(1–3). These perioperative guidelines stipulate liquid and solid feeding should recommence within 24 h after lower

gastrointestinal surgery. This recommendation is based on the overwhelming evidence demonstrating that the rapid reintroduction of nutrition following surgery is safe and improves patient and healthcare outcomes^(4–6). In addition to timely feeding, adequate feeding, which is where patients consume $\geq 75\%$ of estimated energy and protein requirements⁽⁷⁾, is also important with respect to reducing the length of stay and protein-energy malnutrition⁽⁸⁾. However, recent studies indicate that many post-

surgical patients, particularly patients who have had lower gastrointestinal surgery, are not commencing feeding in timeframes outlined by evidence-based guidelines^(9,10) and are not meeting their nutritional requirements in hospital^(8,10). Although a combination of professional, organisational and patient-related factors has been shown to contribute to these findings⁽¹⁰⁾, the extent to which barriers are present at the patient level remains unclear.

Current government and nongovernment bodies advocate for a person-centred approach when delivering healthcare^(11–14). However, historically, patients have not been involved in tailoring health care to meet their needs. Indeed, only a few studies have reported nutrition care from the surgical patients' perspective,^(15,16) and no studies have specifically or comprehensively explored this concept among patients who undergo gastrointestinal surgery. Given that the success of timely and adequate post-operative feeding is largely reliant on patient adherence, this is an area that needs to be addressed. By exploring patients' preferences, concerns and expectations, there is potential to highlight barriers or areas of improvements, distinct from those of clinicians and healthcare organisations, which are required to translate evidence-based nutrition care recommendations into clinical practice.

The aim of the present study was to explore patients' perceptions of and experiences with recommencing oral feeding after colorectal surgery to provide an understanding of the issues they face at this critical period in their recovery. Findings generated from this study will contribute to our understanding of patients' preferences, concerns and expectations regarding nutrition care following colorectal surgery; an area that has received minimal attention to date.

Materials and methods

Study design and setting

The present study was situated in a naturalistic paradigm using semi-structured interviews to explore patients' experiences with recommencing feeding after colorectal surgery⁽¹⁷⁾. The study was conducted across one gastrointestinal surgical ward at a tertiary metropolitan teaching hospital in Southeast Queensland, Australia. The relevant hospital and University Human Research Ethics Committees (reference numbers: HREC/17/QGC/101 and GUREF/2017/389) approved the study. The methodology of this study was devised per the Consolidated Criteria for Reporting Qualitative Research (COREQ)⁽¹⁸⁾.

Participants and recruitment

Patients were eligible to participate if they (i) were able to provide written informed consent (aged ≥ 18 years, cognitively intact, and able to communicate in English);

(ii) did not have an 'absolute' contraindication to oral or enteral feeding after surgery (absence of functioning gut); and (iii) were admitted for a lower gastrointestinal surgical procedure. Patients were excluded if they were critically ill, receiving palliative care or terminally ill. Purposive sampling was used⁽¹⁹⁾ to ensure maximal variation in age, sex and procedural type. Recruitment continued until data saturation (i.e. no new information was identified) was reached, with initially 10 patients anticipated based on previous studies of a similar design^(16,20). With permission from their treating nurse, eligible patients were approached by one of the study investigators (MR) and invited to participate. When possible, eligible patients were interviewed on the day of their discharge to capture a complete description of their hospital stay experience. Each patient was provided with a participant information sheet and informed written consent was gained before data collection.

Data collection

Semi-structured interviews were conducted with all participants. The semi-structured interview guide (Table 1) was developed based on a review of the literature and an audit conducted at the study site. Questions within the guide were then discussed among a reference group consisting of clinicians and previous patients, resulting in the formation of new questions and minor changes to wording. A conversational style of interviewing was adopted with the semi-structured interview guide and patient responses providing direction for the interviewer. Probing and follow-up questions were asked and new questions formed when required during the interviews. Each interview was conducted one-on-one at the patient's bedside, except one interview, which was completed in the presence of the patient's (P01) daughter (>18 years of age). Consent was obtained from this family member, although her contribution was minimal. All interviews were audio recorded and lasted between 10 and 38 min. One of the study investigators trained in interview techniques (MR) and, with a background in dietetics, interviewed all participants between November 2017 and January 2018. The study investigator did not have any prior conflict of interests with any participants. Demographic and perioperative dietary-related data were collected from patients' medical records.

Statistical analysis

Descriptive statistics were used to summarise participant demographics. All interviews were transcribed verbatim and any identifying information was removed. Interview data were thematically analysed using Braun & Clarke's six-step guide⁽²¹⁾ to identify emerging themes from

Table 1 Semi-structured interview guide

What was your experience with recommencing feeding after surgery?
When you were first allowed to eat, what type of foods were you allowed?
Did you feel that the staff asked you enough questions about your symptoms after surgery?
Do you feel that your symptoms were managed well and actioned in a timely manner?
Do you feel you were involved decisions of when to recommence eating after surgery?
When you were allowed to recommence feeding after surgery, were you ready?
When you were allowed to recommence feeding after surgery, were you confident?
When you were allowed to recommence feeding after surgery, were you motivated?
What did you like or dislike about the foods you were given?
What types of foods would you have preferred?
Do you think nutrition is important after surgery?
Why didn't you consume more of your meals?
Do you think post-operative feeding practices could be improved in this hospital?
Do you have any concluding remarks?

within transcripts. Specifically, the lead investigator (MR) read and reread transcripts for immersion in the data. Key quotes were highlighted and codes were developed based on participants' verbatim statements. Codes were grouped according to similarity into subthemes and then themes based on common threads throughout the data. An electronic audit trail was reviewed by a second investigator (SR). Any disagreements or contested themes/subthemes were discussed between the two researchers until consensus was reached.

Methodological rigour and trustworthiness were upheld using several strategies. To help maintain credibility, contact summary sheets were completed after each interview, allowing the interviewer to reflect on the quality and content of interviews, as well as document their preconceptions and ideas. Field notes were also recorded to substantiate observations, which captured nonverbal communication and interactions allowing the researchers to contextualise the data. Trustworthiness of data was enhanced through frequent discussions among the research team to ensure codes, subthemes and themes accurately and sufficiently described and encompassed the data.

Results

Nineteen patients were approached, informed of the study protocol and asked to participate; of these, sixteen (84%) provided their consent and were subsequently interviewed. Reasons for not participating included: disinterest in nutrition ($n = 1$), feeling unwell ($n = 1$) and

self-perceived concerns over not being able to sufficiently contribute ($n = 1$). Participant demographic characteristics are outlined in Table 2. The majority of the participants were of Australian descent ($n = 13$; 81%) and underwent an elective colorectal procedure ($n = 15$; 94%). Approximately half of the participants were female ($n = 9$; 56%) and had a mean (SD) age of 61.5 (12.3) years (range 36–79 years). Only one participant (P13) was seen by a dietitian during the current admission. Participant responses formed three themes and various subthemes that are depicted in Table 3 and described in detail below.

Patients make food-related decisions based on ideologies, experience and trust

Patients report making food-related decisions after surgery in consideration of several factors, including trust placed in treating team and organisation, perceptions of nutrition, usual food habits, nutrition impacting symptoms and positive and negative food associations. These reasons, however, differ somewhat with regard to making food-related decisions about the first liquid/solid meal had after surgery (initial meal) and all subsequent meals in hospital.

Initial food-related decisions

Most patients were prescribed liquids within 24 h after surgery (Table 2). Although the majority of patients stated they were ready to start liquids, many described how they could have gone without their first meal and were simply not interested in eating much because of feeling 'uncomfortable' or 'nauseous'. Despite this, many patients stated they commenced feeding because they knew they 'should try' and perceived this to be a step in the right direction. This appeared to largely be driven by patients' perceptions of nutrition and the trust they placed in their treating team. For example, some patients were intrinsically motivated: 'I had been fasting for, however, long before I went into surgery – common sense tells me when I'm coming out of surgery that I need to have that whether I physically want it or not, my brain tells me, "you need to have this" ... and the jelly I wanted ... I needed' (P16), whereas others were extrinsically motivated and trusted their treating team: 'I wasn't hungry. But anything that comes out, I would try because if it is given to the patient it must be good. So I tried' (P02). Further, patients who commenced liquids the morning after surgery (post-operative day 1; POD1), in general, appeared more ready than patients who commenced liquids the night of surgery. Indeed, some patients who commenced feeding the night of surgery described being more ready to take fluids the following day, yet, they

Table 2 Demographic and surgical data of participants

Participant*	Age	Sex	Surgical procedure ^{†,‡,§}	Day of interview [¶]	First diet prescription**	First solid diet prescription ^{††}	Diet type progression
P01 ^a	75	M	Left hemicolectomy	D7 ^g	D0	D4 ^j	CF-FF-Soft-Full
P02 ^b	66	M	Right hemicolectomy	D5 ^g	D0	D2	CF-FF-Full
P03	58	F	High anterior resection	D6	D3	D5	CF-Full
P04	69	M	High anterior resection ^d	D5 ^g	D0	D2	CF-FF-Full
P05	40	F	Ileo-colic resection ^{d,e}	D6 ^g	D1	D4 ^j	CF-FF-Soft-Full
P06	59	M	High anterior resection	D5 ^g	D1	D2	FF-Full
P07	61	F	Reversal of loop ileostomy ^d	D4	D0	D2	CF-FF-Full
P08	77	F	High anterior resection	D3	D0	D2	CF-FF-Full
P09	36	F	Reversal of loop ileostomy ^d	D3	D0	D2	CF-FF-Full
P10	64	M	High anterior resection	D5	D1 ^h	D1	Full
P11	54	M	Right hemicolectomy	D5	D0	D3	CF-FF-CF-FF-Full
P12 ^c	74	F	Ultra-low anterior resection ^f	D5 ^g	D0	D2 ^j	CF-Soft-Full
P13	79	F	Low anterior resection	D5 ^g	D1 ⁱ	D3	FF-Full
P14	59	M	High anterior resection	D5	D0	D4	CF-FF-Full
P15	52	F	Right hemicolectomy	D3	D0 ⁱ	D1	FF-Full
P16	61	F	Right hemicolectomy	D3 ^g	D0 ⁱ	D1	FF-Full

CF, clear fluids; D, Post-operative day; F, female; FF, free fluids; M, male.

*Of Australian decent unless otherwise specified (^aSpanish, ^bJapanese, ^cAmerican).

[†]Laparoscopic procure unless specified otherwise (^dopen).

[‡]Elective procedure unless otherwise specified (^eemergent).

[§]With anastomosis unless otherwise specified (^floop ileostomy).

[¶]Day of discharge unless otherwise specified (^gwere an inpatient for an additional 1–2 days).

**Clear fluid diet unless otherwise specified (^hfull diet, ⁱfree fluids).

^{††}Full diet unless otherwise specified (^jsoft diet).

appreciated that they were given the option to have fluids the night of surgery: 'I remember my husband giving me, probably, two spoonfuls of jelly [the night of surgery] ... I didn't feel hungry whatsoever ... but I tried ... I'm happy that they tried ... I felt confident that ... [it] was the right step even though I didn't have much ... but ... the next morning I was feeling a lot better and a lot more confident sort of to be able to eat' (P09).

By contrast to the provision of fluids, patients were prescribed solids at different times during their post-operative course (Table 2). Participant responses regarding their readiness to start solid food were also mixed. Several patients who were prescribed solids on POD2, POD3 or POD4 expressed being 'ready' to recommence solids earlier than what they were otherwise prescribed: 'you really can't complain if you know that is what you are on after a bowel operation, but I was hungry, and I did get light headed, and I was really looking forward to real food' (P08). By contrast, two patients (P01 and P11) who were prescribed solids $\geq$ POD3 suffered from post-operative nausea and vomiting for a large majority of their stay and stated that they were not ready to commence solids: 'I think nutrition is extremely important ... but not for the first 3 days after surgery. You're interested in not throwing up ... getting your pain levels

down and looking for progress ... your body's telling you "I don't want any food, I just want to be left alone and let my organs settle down after this major surgery"' (P11). Interestingly, the prescription of food appeared to be an important external cue for patients to commence solids. For example, the three patients who were prescribed solids the morning of POD1 were surprised to have been allowed solids; however, because their treating team prescribed it, they considered that they were 'ready' to start eating.

Subsequent food-related decisions

Patients' usual food habits were a preeminent factor which influenced subsequent food-choice selections. Many patients spoke about selecting foods that would they normally eat at home: 'the little pots of fruit have gone down well with me, but I have fruit and something for breakfast anyhow so I just revert to what I eat at home' (P16). This resulted in patients often describing a preference for common foods such as cereal, fruit, vegetables and tea or coffee as post-operative options. It appeared that patients associated eating foods that they would usually have at home with 'getting back to normal'. Patients often spoke about selecting their 'usual foods' around POD2 or POD3. For most, this coincided with when they were prescribed a 'full diet' and thus had

Table 3 Themes and subthemes

Themes	Subthemes
(1) Patients make food-related decisions based on ideologies, experience, and trust	(a) Perceptions of nutrition (b) Positive and negative food associations (c) Nutrition impacting symptoms (d) Usual food habits (e) Trust placed in treating team and organisation
(2) Patients appreciate the opportunity to participate in their nutrition care	(a) Self-selecting meal choices (b) Acknowledging the patient's contribution (c) Active versus passive involvement in dietary decisions
(3) How dietary information is communicated influences patients' perceptions of and behaviours towards nutrition	(a) Explaining dietary prescription rationales (b) Delivering simple and clear nutrition-related messages

access to a wider variety of foods. However, several factors appeared to influence when patients were ready to revert to their usual food habits, including the presence of nutrition impacting symptoms and their ideologies and fears around reintroducing certain foods.

Patients experiencing nausea or diarrhoea were more concerned with making dietary decisions to help manage their symptoms rather than selecting foods they would normally eat. For some patients, this meant selecting items that they thought they could 'stomach' rather than enjoy, while for others it meant avoiding foods altogether. Patients who experienced ongoing nausea appeared particularly hesitant to select meats and hot meal options, often describing the smell and mouthfeel of these products as off-putting. 'On Saturday [POD3] I still had big trouble eating some of the food ... [so] I decided to just go with safety. I looked up the menu and looked for stuff that I thought I could stomach and there wasn't much ... the food was too greasy looking. One of the meals that they brought up it was a lamb or something, and it looked revolting – it smelt horrible ... I'm not usually a fan of veggies – I am a carnivore. But I found that easier to stomach' (P10). Also, some participants held certain beliefs or fears towards certain foods: 'I choose] as best I could ... just soft food ... because I am imagining quite big cuts in my tummy' (P15). The avoidance of meats and a preference for softer options (e.g. mashed vegetables) appeared to be a common response to these fears. Patients' ideologies around appropriate nutrition were also influenced by the dietary information delivered by their treating team (discussed in theme 3).

Lastly, several patients spoke about their previous dietary intake experiences associated with illness and how this influenced their food-choice decisions or preferences. One participant described examples of how her former hospitalisation impacted on her food preferences and decisions during the current admission: 'my hubby went and got me some hot chips – they were good [laughs]. I had them after my last surgery as soon as I could go onto, like, proper foods. Yeah, they were awesome, like, nice and salty and I didn't feel as though they could clog me up' (P09) and 'after surgery ... they gave me the usual jelly and broth which when I first had my stoma that was the diet for like 4 days ... so I wasn't all that enthused to be back on it ... I actually kind of felt a bit sick, like, trying to eat' (P09). Participants commonly described wanting or enjoying foods they either craved or provided them with comfort during times of illness: 'I have Powerade at home and all through this procedure ... all these things that have happened, I have been drinking Powerade, and that is one of the few things I can get a little bit of comfort from – it makes me spark up' (P13) and 'I craved] chicken nuggets ... I kind of crave chicken nuggets anyway if I'm not feeling great' (P05).

Despite differences in reasoning, many patients described liking, avoiding and preferring similar foods during their post-operative course in hospital. The majority of patients described preferring soft, moist and plain dietary items over sweet, chewy and overly flavoursome foods. This often manifested in patients stating that they 'liked' or 'would have preferred' dietary items such as bread, sandwiches, custard, mashed vegetables (e.g. potato and pumpkin), stewed fruit and eggs over options such as curries, stews, roast meat, jelly, apple juice and beef broth.

Patients appreciate the opportunity to participate in their nutrition care

Patients who felt involved or were given a chance to be involved in their nutrition care decisions, in general, expressed positive attitudes towards their post-operative course. Although all patients disclosed that they were not directly involved in decisions regarding their dietary prescription, patients considered that participation was facilitated through self-selecting meal choices and doctors acknowledging their contribution during ward rounds.

Patients who were able to self-select their meals (enabled via surgeons prescribing unrestricted diets and awareness of meal ordering system) felt empowered and involved in their care. The three patients who were prescribed an unrestricted diet (i.e. a 'full' diet) on POD1 all felt that they had participated in their nutrition care as decisions regarding what foods (e.g. solid versus liquid or hard versus soft

dietary options) they wanted 'was totally left up to' them. Indeed, dietary choice appeared to be a common demonstration of participation regardless of patients' dietary prescriptions. At the hospital, an electronic meal ordering system was in place, whereby patients could select meal items from their bedside computer. Patients who were aware of this system often described how they participated in their care because they were able to choose the foods they 'liked' and 'could manage' from the menu. Furthermore, patients who were not aware of this function before the interview often highlighted this as an area for improvement and considered that they might have eaten more of their meals if they were able to select dietary items that they preferred. Of note, this appeared to be an essential factor among patients who were on fluid diets for >2 days (as a result of the repetitive nature of the standard clear and free fluid diets) or were avoiding certain foods because of symptoms, food intolerances or fears (described in theme 1).

Some patients felt they participated in their care by answering questions around their symptoms, such as nausea, hunger and abdominal pain, and clarifying information with their treating team during ward rounds. These patients felt involved because they considered that the information exchanged helped their treating team make informed decisions based on their symptoms. By contrast, participation appeared hindered when patients felt they could not understand information regarding their care or were ignored during ward rounds: 'sometimes ... I would say something to them [the doctors], and they weren't really listening ... I was trying to tell them something this morning ... and [they] just turned away and started talking to the other doctors' (P04).

Despite valuing participation, the degree to which patients expressed a desire to actively partake in decisions regarding their dietary status varied. The majority of patients viewed doctors as holding expert knowledge and thus were happy, in most instances, to be guided by their decisions, despite some feeling ready to progress their diet: 'I was over the broth and jelly but ... I don't have a degree to say ... "Yes, I'm ready for the next step". They're professionals. I'd rather them sort of tell me what to do' (P09). By contrast, some patients expressed a desire to be more involved in their nutritional care decisions, discussing their ability to offer unique insight into what would be the best course of action for their body. This appeared particularly evident among patients who were suffering from symptoms such as nausea or diarrhoea. One patient who had not been medically diagnosed with lactose intolerance stated: 'maybe they just need to listen when someone knows that something affects them even if it's not medically diagnosed and work with them' (P07).

How dietary information is communicated influences patients' perceptions of and behaviours towards nutrition

Effective communication of nutrition care information, such as delivering nutrition-related messages and explaining dietary changes, was seen as an important part of the post-operative experience for some patients. It appeared that clear and simple dietary-related messages delivered by doctors were appreciated by patients and heavily shaped their behaviour and attitudes towards nutrition. Two of the patients who were prescribed solids on POD1 spoke of their surgeon telling them to 'just graze' on foods throughout the day and how this was a simple message that they endeavored to achieve daily. By contrast, the third patient prescribed solids on POD1 recalled receiving a somewhat contradictory message that negatively impacted on her food intake: 'it was a little bit scary because up there [on the whiteboard] it said 'full diet' ... Then the surgical team came round and said, 'I just want you to have liquidly food', but there was no liquidly food to choose – just soup. So what I did is I just ordered roast pumpkin and stuff and just mashed it up – sort of like baby food' (P15). However, what did appear evident is that when dietary intake was generally discussed or encouraged during ward rounds, patients perceived nutrition as important and generally endeavored to carry out the recommendation suggested by their surgeon: 'I didn't want to eat ... I would have been happy not to eat for a longer period. But, as I've said, the only reason I really ate was because ... the doctors told me to' (P10).

Approximately two-thirds of the patients were not given an explanation by their treating team as to why their diet was downgraded or upgraded. Patient responses varied regarding not having received this information. Some patients did not think it was necessary to be told why they were on specific diets as it was intuitive: 'I don't think it was explained and I didn't think it needed to be explained. They cut half my stomach out, so I figured that it was common sense not to have harsh things in there' (P16). Others perceived that if this information was not conveyed, then it must have been unnecessary for them to know. However, what did appear consistent was that when patients recalled having their diet upgraded, they perceived that it was a positive sign as they were progressing: 'they ended up writing up there "FLUD" [on the whiteboard] ... I was thinking FLUD, "wooo, one step closer" [laughs]. I didn't know what that meant – FLUD, but, you know, I thought it sounded better than broth and jelly' (P09). (NB: FLUD is the diet code for a free fluid diet at the hospital). When patients were asked if they would have liked to have received an explanation, many said 'yes' but only if the information

could be explained simply, articulating that at times understanding doctor's dialogue can be challenging: 'I don't know whether it can be explained simply or not, like some things when they try to explain them they talk in how they understand it, like doctors talk doctor talk... But if there was a simple way of explaining it then yes' (P07).

Discussion

The present study explored patients' perceptions of and experiences with recommencing feeding after colorectal surgery. Findings generated from this study offer information necessary to inform intervention strategies to improve post-operative nutrition care among this patient group in line with their needs and expectations.

The reasoning behind why patients enjoyed, avoided or preferred certain foods when in hospital varied from patient-to-patient and decisions were made in consideration of several factors. Many patients selected dietary items that they would normally eat at home, associating this with 'getting back to normal', and potentially using food as a means of structure when in hospital, which is a finding supported by a previous study⁽¹⁶⁾. However, patients who experienced severe symptoms, or had particular ideologies around appropriate nutrition, selected foods that they could 'stomach', or thought were 'suitable', over what they would usually eat at home. Previous studies have reported similar findings, outlining food preferences in hospital can be influenced by patients' pain and nausea ratings^(22,23). However, despite differences in food-choice rationales, many patients described preferring plain foods (e.g. bread, sandwiches, custard, mashed potato and pumpkin, stewed fruit and eggs) and avoiding more flavoursome foods (e.g. curries, stews, roast meat, jelly, apple juice and beef broth). This high preference for soft, moist and plain dietary items and low preference for sweet, chewy and overly flavoursome foods has been reported in other studies conducted among post-surgical patients^(22–24). This information may help inform intervention strategies at the foodservice level, given that some of these foods are not typically offered on the 'regular' diet, and assist clinicians in making dietary recommendations among post-operative patients. Furthermore, considering that patients are particular about what they eat after surgery, it is important they are aware of their dietary options and are informed about the process of how to order meals. This may increase oral intakes because patients can select the foods they prefer, and could potentially improve patient satisfaction considering selecting foods from the hospital's menu was identified as a means of patients participating in their care, which is a factor shown to enhance self-efficacy and satisfaction^(15,25).

Many patients were ready for liquids at the time they were prescribed by their treating team, which was within 24 hr for most patients. However, there were mixed responses around when patients were ready to commence solids (range POD1 to POD5). Several patients indicated that they were willing to try solids earlier than they were prescribed, whereas others stated they could have remained exclusively on liquids for a longer duration after surgery. These findings indicate that: (i) a combination of liquid and solid foods are preferred early in the post-operative period, which is congruent with findings reported from a survey conducted among patients who had undergone colorectal surgery ($n = 145$)⁽²²⁾, and (ii) a 'paternalistic model' of care prevails⁽²⁶⁾, whereby patients are not actively involved in decisions around their dietary status. The 'deliberative model', which promotes shared decision-making and is the preferred healthcare model, involves clinicians helping patients to identify pertinent health values and together, choosing the medical option that best aligns with the patients' personal context⁽²⁶⁾. Sharing power and allowing patients more control over their healthcare enhances patient autonomy^(15,27). In the context of post-operative nutrition care, this could be achieved through surgeons prescribing an unrestricted diet from POD1 and guiding patients to the best option given their personal situation and needs. Indeed, enabling patients to self-select liquids or solid foods has been shown to lead to the return to a normal diet within 2 days after surgery, which is associated with a range of potential benefits^(28,29) and is likely to enhance patient participation in care. As such, strategies to support clinicians in enacting a more person-centred approach to care are needed to improve patient and healthcare outcomes among patients who undergo gastrointestinal surgery.

Effective communicative behaviours (e.g. expressing empathy, conveying information simply and involving the patient) are essential for well-developed patient-clinician relationships, which have been shown to improve compliance and health outcomes among patients⁽³⁰⁾. In the present study, several patients expressed difficulty understanding information regarding their care or were ignored during ward rounds, which negatively impacted on their post-operative experience, as well as potentially hindered their desire to participate in shared decision-making. Contrastingly, patients who had their questions answered and were able to clarify information with their treating team felt involved and expressed greater satisfaction towards their care. These findings suggest that efforts made to involve patients in their care through asking them about specific concerns and conveying information in a simple form may help to overcome patient passivity and the power imbalance, which is supported by previous work⁽³¹⁾. Furthermore, direct associations have been found between

interpersonal trust, established through effective clinician–patient communication, and a higher desire for shared decision-making, medical acceptance and treatment adherence⁽³²⁾. Hence, adopting such communicative behaviours is paramount to accomplish shared decision-making, which is of importance for patients recommencing feeding after surgery. Lastly, how dietary information was communicated by doctors appeared important in shaping patients' food-related behaviours. For example, some patients suggested that they ate more than they otherwise would have because their doctors delivered clear and simple dietary-related messages and provided verbal encouragement to eat more during daily ward rounds. Collectively, these findings suggest that engaging patients in treatment decision-making and providing simple, clear and encouraging dietary-related information may enhance oral intakes and effectively engage patients in their post-operative nutrition care.

A clear limitation of the present study is that the generalisability of the findings may be limited to the participants and setting studied. Although maximum variation purposive sampling was used to obtain perspectives from a variety of demographic backgrounds, and interviews continued until data saturation was reached, it is possible that some views are not represented in our sample.

Conclusions

The present study has highlighted several important factors that should be considered by clinicians and organisations when attempting to improve post-operative nutrition care. These include giving patients greater autonomy over the foods that they select after surgery (enabled by prescribing unrestricted diets from POD1 and giving patients knowledge of dietary choices), engaging patients in treatment decision-making, and providing simple, clear and encouraging nutrition information. These strategies may improve post-operative patients' oral intakes and participation in care.

Transparency declaration

The lead author affirms that this manuscript is an honest, accurate and transparent account of the study being reported. The reporting of this work is compliant with Consolidated Criteria for COREQ⁽¹⁷⁾. 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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Conflict of interests, source of funding and authorship

The authors declare that they have no conflicts of interest.

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All authors contributed to study design and conception. MR contributed to data collection. MR and SR contributed to data analysis. All authors contributed to data interpretation and drafting, reviewing and approving the final version of the manuscript submitted for publication.

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