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Promoting Patient Engagement: A Scoping Review of Actions That Align with The Interactive Care Model

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Abstract

Background

Conceptual clarity for the term patient engagement is growing. However, there is variability in patient engagement in healthcare, which could be due to the absence of models to guide practice or a myriad of

organisational, nurse and patient factors. The recently developed 'Interactive Care Model' provides guidance on how to genuinely promote individualised patient engagement. An understanding of how to action this model in nursing is required.

Aims

The aim of this scoping review was to examine actions in the published scientific literature that align with the Interactive Care Model, in the context of nursing care of hospitalised patients.

Data sources

In 2018, searches of CINAHL, Cochrane Library, MEDLINE and PsycInfo were undertaken, for literature published between 2008 and 2018. This was followed by citation tracking.

Review methods

Two researchers screened and selected studies using prespecified criteria. Data were charted into a pre-established tool and collated and summarised using numerical summaries and deductive content analysis. For content analysis, categories were generated from the 'Interactive Care Model'.

Findings

Forty-three studies were included in the review, 33 noninterventional and 10 interventional studies. Publications on the topic are increasing in number over time, with most conducted in Europe with patient or nurse participants. Forty-two actions were found in the literature that aligned with the 'Interactive Care Model'. The actions uncovered differed between intervention and noninterventional studies; in interventional studies actions were formalised.

Conclusions

This review provides an overview of actions that promote patient engagement and could inform implementation of the Interactive Care Model and the design and testing of patient engagement interventions to support the model. There are opportunities to explore latter phases of the Interactive Care Model to foster patient engagement in self-management and to motivate patients' management of healthcare beyond hospitalisation. Further, there is a need to rigorously evaluate patient engagement interventions.

Keywords

nurses; nurse–patient relations; inpatients; patient-centred care; patient engagement; patient participation; literature review

Introduction

When patients are effectively engaged in their healthcare, their knowledge increases, and they experience greater quality of life, satisfaction, psychological health (1) and safety (2). For patients with a recent hospitalisation, patient engagement in their healthcare can occur during hospitalisation and beyond hospitalisation. In the hospital, patients may engage in communicative activities to support planning and decision-making, like bedside handover and multi-disciplinary team meetings, as well as self-management activities like activities of daily living and medication administration. Beyond hospitalisation, patients may perform behaviours to improve their role in their own healthcare, such as chronic disease management, making appointments and staying informed about follow-up treatment options (3).

There is growing policy support to engage patients as partners in their healthcare to enhance the patient-centredness, safety and quality of health service delivery (4, 5). This increasingly places pressures on acute care hospitals to strengthen their patient engagement efforts. Yet, there is variability in the way that patient

engagement is promoted and implemented in hospitals, often attributed to organisational barriers in acute care hospitals such as competing priorities and time constraints (6). Healthcare professional barriers also influence patients' engagement, such as nurses' lack of theoretical knowledge and skills in deliberately engaging patients (7). Increasingly, research focus is moving towards understanding how to overcome these barriers to inform interventions that facilitate patient engagement (8).

Background

A variety of terms are used in the literature to describe the active role patients can have in their healthcare including activation, adherence, compliance, empowerment, involvement, participation and engagement (3, 9). Terms such as compliance and adherence tend to be used in the published literature prior to 2004 and define patients having limited autonomy and scope, with shared decision-making being the most active behaviour patients undertake (9). From 2006 to 2009, the terms participation and involvement gained popularity (9). A seminal piece of work from this time period was Sahlsten et al.'s (10) concept analysis on patient participation, which has influenced nursing research. Participation and involvement emphasise the importance of supportive contexts and dyadic clinical consultations, between patients and nurses with the right knowledge, skills and attitudes, required to sustain the active role of patients (10–12). In 2010–2013, patient empowerment was the most used term and related to patients having a sense of control and responsibility over their disease and healthcare management (9).

The term patient engagement has shown the greatest increase in use from 2002 to 2013 when compared to other terms, and it will have increased usage in the future (9). An engaged patient has a strong motivation to become more knowledgeable and hold more power in the nurse–patient relationship (3), and '...the desire and capability to actively choose to participate in care in a way uniquely appropriate to the individual in cooperation with a healthcare provider or institution for the purposes of maximising outcomes or experiences of care'. (p33) (13). 'Individualisation' is a defining attribute of patient engagement, whereby patients are supported to engage in a way that is uniquely appropriate to them. Suhonen et al.'s (14) extensive work on individualising care suggests that nurses need understanding of patients' clinical condition, personal situation, decisional control and preferences for engagement, to enable patient engagement; however, how this information about the patient is collected and used to plan and enact individualised care is lacking (15). Overall when comparing terms, patient engagement is a broader conceptualisation of the patient's role (9). It is viewed as an umbrella term that temporally and conceptually surpasses other terms like adherence, compliance, participation, involvement and empowerment (9). Further, enacting patient adherence, compliance, participation and involvement contributes towards successful patient engagement (9). As a result, healthcare organisations worldwide have adopted this term (4, 16, 17). The term patient engagement will be used in this scoping review.

There are numerous conceptual frameworks for patient engagement in the form of white paper reports and research studies (5, 18–20); however, conceptual frameworks do not outline the steps for engaging people in healthcare. On the other hand, models can be used as operational tools that provide guidance on 'how' theories, concepts and frameworks can successfully be applied to practice (21). Recently, a group of researchers identified the lack of models available for patient engagement and created the 'Interactive Care Model'. This process model provides direction for healthcare professionals about 'how' to promote patient and family engagement in healthcare in a way that is uniquely appropriate to them. Model development involved a literature review, gap analysis, expert review and reaction panel with healthcare professionals and patients (22). The Interactive Care Model consists of the following five phases: (1) assess the person's capacity for engagement; (2) exchange information and communicate choices; (3) planning between people and clinicians; (4) appropriate interventions determined; and (5) evaluate regularly (See Table 1) (22). By providing steps, the Interactive Care Model is a

systematic and individualised approach that nurses can follow in practice to promote patient engagement. Currently, this is the most robust model for patient engagement available (22).

Table 1. Phases of the Interactive Care Model

Phases	Description
Assess a person's capacity for engagement	Many factors can influence patient engagement including personal preferences based on cultural values, health literacy, activation/motivation and disease burden. Formal measures exist to measure some of these factors. Assessments need to include patients' ability to engage in and manage care, and assessments can be used to tailor interventions to the appropriate level of patient engagement
Exchange information and communicate choices	Information-sharing needs to include the expertise of both patients and healthcare professional. Information exchange is heightened when healthcare professionals tailor their education to the individual needs of the patient. Assessment data (prior phase) can be used to communicate options for shared decisions. Healthcare professionals must listen to patients' preferences, values and beliefs and support them to make educated decisions
Planning between people and clinicians	Goals and aspirations for the care process need to be created. Both patients and healthcare professionals need to be involved in planning, which can increase accountability; there need to be mutual goals with agreed outcomes. Planning involves translation of information from the preceding assessment phase. Planning involves considering the future setting where the patient will take ownership of his/her care and setting goals for this transition
Determine appropriate interventions	Appropriate interventions need to be matched to patients' level of engagement and readiness to own their own care. Interventions can inform or empower patients for greater overall engagement. Interventions can be put in place to support patient engagement beyond hospitalisation such as reminders, technological applications and support groups
Evaluate regularly	To determine the effectiveness of interventions, and whether it has been tailored to the patient's level of engagement, evaluation is required. Evaluation may include clinical outcomes and progression in healthcare management

Drenkard et al. (22).

Researchers have shown there is a gap between conceptualisations of and policy ideals for patient engagement and actual practice (23); thus, the Interactive Care Model could address this gap. In particular, the frequent interaction between patients and nurses, which builds the nurse–patient relationship, places nurses in a key role to foster patient engagement (24). Yet, researchers have demonstrated that nurses' encouragement of patient engagement is sporadic (25) and nursing interventions to promote patient engagement are not always individualised to patients, instead following a standardised approach (26). Thus, examining how nurses can action the Interactive Care Model could in turn improve patient engagement in practice.

To support patient engagement in clinical practice, the Interactive Care Model would need to be operationalised through training processes and materials and evaluative instruments. Nurses would require concrete actions to put the phases of the Interactive Care Model into effect, and to ensure there is no confusion or superficial approach towards patient engagement. Currently, the Interactive Care Model does not provide this level of detail; however, it may be available in the scientific published literature. Thus, the aim of this scoping review was to examine actions in the published scientific literature that align with the Interactive Care Model, in the context of nursing care of hospitalised patients.

Methods

Arksey and O'Malley's (27) methodology for undertaking scoping reviews was used to guide this review, following five stages: (1) identifying the research question; (2) identifying relevant studies; (3) study selection; (4) charting the data; and (5) collating, summarising and reporting the results. For Stage 1, the research questions were developed with input from the research team: What actions in the published scientific literature align with the Interactive Care Model, in the context of nursing care of hospitalised patients?

For Stage 2, reviewers searched (1) bibliographic databases; (2) reference lists of included studies; and (3) Scopus database undertaking forward citation searching. The bibliographic databases searched were the Cumulative Index of Nursing and Allied Health Literature (CINAHL), Cochrane Library, Medical Literature Analysis and Retrieval System Online (MEDLINE) and Psychological Information Database (PsycINFO), with assistance from a health librarian (See Appendix S1). Terms like involvement and empowerment were used as they conceptually all come under the umbrella term 'engagement' (9). Databases were selected based on their appropriateness for the topic, including those having a nursing focus. Studies were exported into a reference manager software, and duplicates were removed.

In Stage 3, two reviewers (GT, TJ-O) included/excluded studies as per criteria in Table 2 based on titles and abstracts, using Rayyan (28). Any study selected for inclusion and those requiring further review or where consensus was not achieved had full texts reviewed to determine eligibility.

Table 2. Inclusion and exclusion criteria

	Criteria
Inclusion	Any study design
	Published from 2008 onwards (reflecting the shift from the term 'patient participation'[13] to the term 'patient engagement'[10])
	In English
	Enablers delivered in the context of nursing care in acute hospital care
	Data focuses on patients' and/or nurses' perspectives, attitudes, perceptions, experiences, or views of enablers to individualised patient engagement in healthcare. Studies were deemed as having 'individualised' enablers if one or more of the phases of the 'Interactive Care Model' [17] were present in the aim or methods
Exclusion	Studies conducted in rehabilitation, maternity, mental health settings, outpatient settings and the operating theatre, due to their unique approach towards patient engagement
	Editorials, methodological papers, abstracts, dissertations, case studies and protocols

For Stage 4, data from 10% of studies were extracted and charted by two researchers (GT, TJ-O); inter-rater reliability was 93.5%; thus, remaining studies were charted and extracted by one researcher (GT) and checked for accuracy by a research assistant. Data were charted using a pre-established tool and were extracted from the primary studies without interpretation including author, study focus, year of publication, country, study focus, sample, setting and methodology.

For Stage 5, 'collating and summarising and reporting' occurred which was achieved by conducting descriptive numerical summaries followed by content analysis, as per scoping review recommendations (29). For the numerical summary, charted data from Stage 4 were used to describe the context of studies such as years of publication and types of study methodologies. These data were reported as frequencies and percentages.

Next, qualitative content analysis was used to facilitate summarization of the comprehensiveness of data supporting the Interactive Care Model (29). First, deductive content analysis occurred which is a highly structured approach involving mapping primary study data against 'a priori' categories. In our review, the 'a priori'

categories were generated from the Interactive Care Model (Table 1). First, the studies were imported into NVivo for data management (30). Next, a categorisation matrix was created in NVivo, and this involved creating a list of categories, which were the phases of the Interactive Care Model (31). Next data from primary studies were coded against the categories (31). Data coded were from the 'results/findings' sections of primary studies and additionally in the 'methods' sections for interventional studies (32). Each sentence in primary studies that was related to actions were coded into the categorisation matrix. For instance, 'Nurses spent much of their day explaining procedures and treatment options with patients and their families using simple language so that jargon would not overwhelm patients' (33) was coded to the category 'exchange information and communicate choices'. Another example was 'Participants used a number of tools to engage patients, such as the shared use of communication boards' (34), which was coded to the category 'planning between people and clinicians'. Some sentences in primary studies were not actions that promoted the Interactive Care Model and were not included in the analysis. Next, the sentences placed under each category were read and re-read (32). Sentences with similar meanings were grouped together (32). These groups represented actions that promoted each phase of the Interactive Care Model and provided a distilled summary of the content placed under each category.

On completion of deductive content analysis, the number of studies coded to each category was calculated to represent the frequency of studies addressing each phase of the Interactive Care Model (32). These calculations were displayed as a diagram; categories with more studies coded to them were graphically represented with larger rectangles.

Rigour

To enhance rigour, a clear and transparent description of the methods was provided and adhered to (35), as per Arskey and O'Malley's methodology. Next, a clear search strategy with health librarian input and fixed inclusion/exclusion criteria mitigated researchers' influence on study selection (36). Additionally, charted data were provided to give contextual details of studies, allowing readers to determine usefulness of findings for their own settings (32). Finally, data charting and collating/summarising/reporting involved more than one researcher, ensuring accuracy of data and that the outputs were credible (32).

Findings

The search yielded 924 studies once duplicate studies were removed. Following full-text review of 81 studies, 43 studies were included in this scoping review. A PRISMA flowchart was created to outline the process used for study selection (Fig. 1).



PRISMA 2009 Flow Diagram

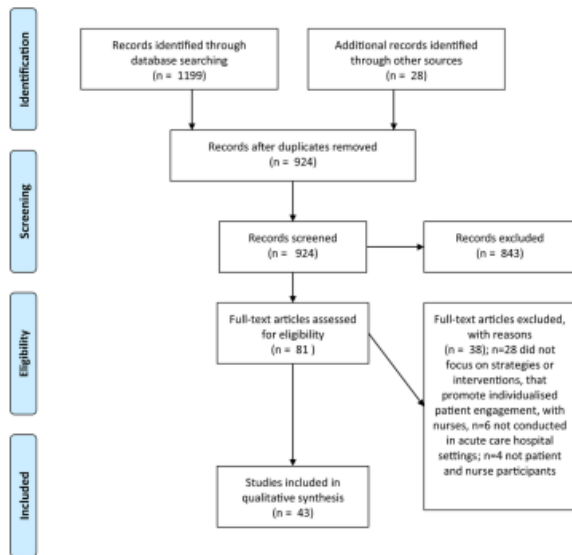


Figure 1 Outcome of search strategy.

Numerical summary results

An average of 3.6 studies/year was published on the topic over the last 11 years. Sixteen studies were published during the first half of the time period (2008–2013) (37–52), and twenty-seven studies were published during the second half of the time period (2014–2018) (33, 34, 53–77), demonstrating an increase in publications on the topic. This research was mainly conducted in Europe ($n = 26$) (34, 37, 39–43, 45, 46, 48–50, 52, 55, 57, 62, 63, 65–72, 74); 69% ($n = 18$) of the European studies were conducted in Sweden (34, 37, 39, 41, 42, 45, 46, 48, 49, 52, 55, 57, 66, 67, 69–72). The remaining studies were conducted in Australia ($n = 8$) (47, 51, 54, 58–60, 64, 75), North America ($n = 5$) (33, 38, 53, 61, 76), Asia ($n = 3$) (44, 73, 77) and the United Kingdom ($n = 1$) (56) (See Table 3). Samples consisted of patients ($n = 17$) (41, 45–47, 49, 51, 53, 55, 56, 61, 62, 64, 65, 67–69, 76), nurses ($n = 15$) (33, 34, 37, 39, 40, 43, 50, 52, 57, 60, 70–73, 75), or patients and nurses ($n = 11$) (38, 42, 44, 48, 54, 58, 59, 63, 66, 74, 77), and an 'a theoretical' approach was undertaken in 86% ($n = 37$) of studies (33, 34, 37–48, 51, 53–61, 63, 64, 66, 67, 69–77).

Table 3. Summary of extracted data

Author, Year, Country	Study focus	Sample and setting	Methodology
Andersen et al. (65), Denmark	Participation in care related to hospital discharge and everyday life at home	Patients = 15 ^a Setting: respiratory medical ward and outpatient clinic	Theoretical underpinning: Ricoeur's theory of interpretation Methodology: phenomenological hermeneutic design
Arnetz et al. (37), Sweden	Patient involvement for patients with acute myocardial infarction	Nurses = 303 ^b Setting: cardiology departments at 12 hospitals	Theoretical underpinning: nil Methodology: cross-sectional design
Arnetz and Zhdanova (57), Sweden	The patient involvement climate	Nurses = 303 Setting: coronary care units at 12 hospitals	Theoretical underpinning: nil Methodology: cross-sectional design
Berg et al. (40), Nordic country	Health promotion and empowerment related to the older hospital patient	Nurses = 12 Setting: general medical, palliative care or infection medicine unit	Theoretical underpinning: not clearly stated Methodology: explorative, descriptive, qualitative design
Bucknall et al. (75), Australia	Patient involvement in medication administration	Nurses = 20 Setting: 2 surgical and 2 medical units at 600+ bed acute care teaching hospital	Theoretical underpinning: nil Methodology: descriptive, exploratory, design
Ekman et al. (45), Sweden	Person-centred care intervention inclusive of staff education, on hospital admission information obtained from patient to make patient-centred plan, during hospitalisation patient encouraged to be active (i.e. get out of bed), ongoing patient assessment and patient involvement in decision-making documented throughout hospitalisation	Patients = 248 Setting: 5 wards at a university hospital with patients with prior diagnosis of chronic heart failure	Theoretical underpinning: nil Methodology: controlled before-after design
Eldh et al. (41), Sweden	How patients define 'patient participation' relating to age, gender, contact type and duration of disease	Patients = 362 Setting: inpatient (internal medicine, surgical, and orthopaedic) wards and outpatient (internal medicine, surgical, arthroscopy,	Theoretical underpinning: nil Methodology: cross-sectional design

		orthopaedic, emergency, day surgery) services at 250 bed local hospital	
Hesselink et al. (48), the Netherlands, Spain, Poland, Italy and Sweden	Hospital discharge process	Patients = 53 ^a ; Hospital nurses = 38 Setting: 9 hospitals (4 academic/teaching hospitals and 5 regional community hospitals, varying from 127–1042 beds). Internal medicine, pulmonary diseases, cardiology or (vascular) surgical wards	Theoretical underpinning: nil Methodology: grounded theory
Höglund et al. (42), Sweden	Patient engagement in care process and decision-making	Patients = 8; Nurses/doctors = 17 ^c Setting: patients recently discharged after a myocardial infarct from hospital	Theoretical underpinning: nil Methodology: descriptive, qualitative design
Jangland and Gunningberg (66), Sweden	Tell-us cards (printed cards that invite patients to write what is important to them in that moment and for discharge)	Patients = 198; Nurses = 102; Nurses managers = 5 Setting: 5 surgical units in large university hospital	Theoretical underpinning: nil Methodology: descriptive, mixed-methods, implementation design
Jangland et al. (49), Sweden	Tell-us cards (printed cards that invite patients to write what is important to them in that moment and for discharge)	Patients = 310 Setting: 2 surgical units at a 1100 bed university hospital	Theoretical underpinning: data collection based on patient-centred theoretical model of patient care through a grounded theory approach Methodology: quasi-experimental design
Jeffs et al. (53), Canada	Bedside handover	Patients = 45 Setting: nephrology, general surgery, respiratory, obstetrics and gynaecology units at 500 bed inner city acute care teaching hospital	Theoretical underpinning: nil Methodology: qualitative design
Jerofke-Owen and Bull (33), USA	Process of patient empowerment	Nurses = 34 Setting: adult medical, surgical, oncology and critical care units at 4 hospitals affiliated with 2 large health systems	Theoretical underpinning: nil Methodology: qualitative design
Jerofke-Owen and Dahlman (76), USA	Experiences and preferences for engaging in care while hospitalised	Patients = 17 Setting: 7 medical–surgical inpatient units at a large Magnet-designated medical centre	Theoretical underpinning: nil Methodology: qualitative design

Kullberg et al. (72), Sweden	Person-centred handover at the bedside	Nurses = 11 Setting: 2 oncology inpatient wards at a university hospital	Theoretical underpinning: nil Methodology: qualitative design
Kullberg et al. (67), Sweden	Person-centred handover at the bedside	Patients: baseline = 116, time point 1 = 209 Setting: 3 oncology wards (one intervention ward for patients with head/neck or lung cancer, 2 control wards for patients with gynaecological or breast cancer, or for patients with gastro-intestinal or urological cancer) at 1 university hospital	Theoretical underpinning: nil Methodology: cross-sectional, interventional, design
Kvangarsneset al. (50), Norway	Patient engagement in acute phase of COPD exacerbation	Nurses = 17 Setting: intensive care units	Theoretical underpinning: critical discourse analysis Methodology: critical discourse analysis
Larsson et al. (46), Sweden	Decisive incidents that influenced patient participation in nursing care	Patients = 17 Setting: somatic internal medical clinic that focussed on stroke, disorder of kidney and heart, and lung	Theoretical underpinning: nil Methodology: qualitative, critical incident technique
Latimer et al. (51), Australia	Pressure injury prevention	Patients = 20 Setting: 4 medical units, 2 metropolitan hospitals	Theoretical underpinning: nil Methodology: interpretive design
Lin et al. (77), China	Patient participation in symptom management	Patients = 41; Nurses = 7 Setting: 2 medical oncology units at a specialised hospital	Theoretical underpinning: nil Methodology: descriptive, qualitative design
Lindberg et al. (52), Sweden	Team meetings	Nurses = 9 Setting: ward for people >75 years of age	Theoretical underpinning: lifeworld phenomenology and caring science Methodology: phenomenology
Manias et al. (58), Australia	Patient engagement in managing medications	Patients = 11; Nurses = 12 ^b Setting: cardiac care, emergency care, intensive care, oncology care and perioperative care at a public, metropolitan teaching hospital	Theoretical underpinning: nil Methodology: exploratory, qualitative design
McMurray et al. (47), Australia	Bedside handover	Patients = 10 Setting: 1 medical unit	Theoretical underpinning: nil Methodology: descriptive, case study

McTier et al. (54), Australia	Postoperative pain management after a cardiac surgical intervention of patients with cardiovascular disease	Patients = 98; Nurses = 40 Setting: cardiothoracic unit at major metropolitan, tertiary referral hospital	Theoretical underpinning: nil Methodology: case study
McTier et al. (59), Australia	Medication management	Patients = 98; Nurses = 40 Setting: cardiothoracic unit at major metropolitan, tertiary referral hospital	Theoretical underpinning: nil Methodology: case study
Nyborg et al. (68), Norway	Decision-making processes regarding the planning of everyday life after discharge from hospital	Patients = 5 Setting: geriatric wards at 2 hospitals	Theoretical underpinning: Hermeneutic tradition Methodology: case study
Nyborg et al. (62), Norway	Patient involvement in their own treatment and care	Patients = 15 Setting: acute geriatric units	Theoretical underpinning: Ricoeur's theory of interpretation Methodology: qualitative design with a phenomenological hermeneutic approach
Olsson et al. (55), Sweden	Person-centred care intervention inclusive of patient assessment and plan developed and sent to patient prior to hospital admission, in hospital patient uses checklist to guide hospital care and discharge procedure	Patients = 266 Setting: wards where patients with total hip replacements are admitted	Theoretical underpinning: nil Methodology: controlled before and after design
Oxelmark et al. (34), Sweden	Experiences of patient participation in care	Nurses = 20 Setting: 4 medical wards, 2 public hospitals both part of university hospital setting	Theoretical underpinning: nil Methodology: interpretive, qualitative design
Papastavrou et al. (63), Czech Republic, Cyprus, Finland, Greece, Hungary	Perceptions of patients' decisional control over care	Patients = 1315; Nurses = 960 Setting: surgical settings	Theoretical underpinning: nil Methodology: cross-sectional comparative design
Pongthavornkamol et al. (73), Thailand	Patient participation in the context of symptom management in acute cancer care	Nurses = 16 Setting: oncology/haematological wards at 1 hospital	Theoretical underpinning: nil Methodology: qualitative, descriptive design
Ringdal et al. (69), Sweden	Participating in nursing care generally and safety activities	Patients = 20 Setting: 4 medical wards at 2 hospitals that were both part of a university hospital setting	Theoretical underpinning: nil Methodology: exploratory, qualitative design

Sahlsten et al. (39), Sweden	Strategies to stimulate and optimise patient participation in nursing care	Nurses = 16 Setting: inpatient somatic care units including rehabilitation ward, gynaecology ward, orthopaedic, eye and medical wards at 3 hospitals	Theoretical underpinning: nil Methodology: qualitative design
Schandl et al. (70), Sweden	Patient participation for critically ill patients	Nurses = 17 Setting: 2 intensive care units at 2 county hospitals	Theoretical underpinning: nil Methodology: qualitative design
Schwappach et al. (43), Switzerland	Patients' roles in the prevention of chemotherapy administration errors	Nurses = 11 Setting: wards or in the ambulatory infusion unit providing chemotherapy at 1 large community hospital	Theoretical underpinning: nil Methodology: qualitative descriptive design
Skagerströmet al. (71), Sweden	Patient involvement of relevance for patient safety	Nurses: Registered nurses = 11, nurse assistants = 8 Setting: pulmonary medicine unit at 1 university hospital, surgical ward at 1 mid-sized hospital, ear, nose and throat unit at 1 mid-sized hospital, maternity care centre (outpatient care), nursing home (18 residents)	Theoretical underpinning: nil Methodology: qualitative design
Soleimani et al. (44), Iran	Patients with chronic illness and their engagement in care generally	Patients = 9; Nurses = 8 Setting: medical wards, at 3 teaching hospitals affiliated with University	Theoretical underpinning: nil Methodology: grounded theory
Thyssen and Beck (56), UK	How patients with intestinal failure experience their hospital surroundings in relation to patient participation	Patients = 8 Setting: intestinal failure unit at 1 NHS Foundation Trust	Theoretical underpinning: nil Methodology: phenomenological hermeneutical approach
Tobiano et al. (60), Australia	Patient participation in nursing generally and in safety activities	Nurses = 20 Setting: gerontology, immunology, neurology and respiratory medicine wards across one private and 1 public hospital located in different states	Theoretical underpinning: nil Methodology: interpretive qualitative design
Tobiano et al. (64), Australia	Patient participation in nursing generally and in safety activities	Patients = 20 Setting: gerontology, immunology, neurology and respiratory medicine wards across 1 private and 1 public hospital located in different states	Theoretical underpinning: nil Methodology: interpretive, qualitative design

Truglio-Londrigan (61), USA	Shared decision-making	Patients = 6 Setting: healthcare organisation	Theoretical underpinning: nil Methodology: qualitative design
van Belle et al. (74), Netherlands	Tell-us cards (printed cards that invite patients to write what is important to them in that moment and for discharge)	Patients = 25; Nurses: individual interviews = 12, focus groups interviews = 15 Setting: cardiology ward, head and neck surgical ward at 1 hospital ^d	Theoretical underpinning: nil Methodology: intervention mapping
Wolf et al. (38), USA	Patient-centred care intervention inclusive of nurse education, a preadmission phone call to obtain information from the patient, patient involvement in daily planning, goal-setting and discharge planning	Patients = 36; Nurses = 26 Setting: not provided	Theoretical underpinning: nil Methodology: randomised post-test design

^a Family participants included in study.

^b Other healthcare professional participants included in study.

^c Doctors included in sample and nurse sample data unable to be extracted separately.

^d Unclear where all interview participants worked.

Both interventional and noninterventional research studies were retrieved. Thirty-three studies were noninterventional (33, 34, 37, 39–44, 46, 48, 50–52, 54, 56–65, 68–71, 73, 75–77). The focus of most noninterventional research was exploring patient and/or nurses perceptions'/experiences' of general patient participation/engagement/empowerment/involvement processes (n = 14) (33, 34, 37, 39–41, 44, 46, 50, 56, 57, 62, 70, 76). Some other examples of study foci included exploring patient and/or nurses perceptions'/experiences' of patient engagement in safety practices (60, 64, 69, 71), medication-related care (43, 54, 58, 59, 75) and discharge preparation (48, 65, 68). A qualitative design was most commonly used in noninterventional studies (n = 18) (33, 34, 39, 40, 42, 43, 51, 58, 60, 61, 64, 69–71, 73, 75–77), followed by cross-sectional (n = 4) (37, 41, 57, 63), case study (n = 3) (54, 59, 68) and phenomenological hermeneutic (n = 3) (56, 62, 65).

The 10 interventional studies retrieved could be grouped into three types of interventions: bedside handover (n = 4) (47, 53, 67, 72), 'Tell-us Cards' (n = 3) (49, 66, 74) and patient/person-centred interventions (n = 3) (38, 45, 55). Bedside handover is defined as the transfer of responsibility for patient care from one nurse to another. When this exchange occurs at the bedside, it provides opportunity for patient engagement (47). The patient/person-centred interventions differed slightly across studies, broadly the intervention components included, assessment of patient needs conducted prior to or during hospitalisation, which was used to make a documented plan for the patient to guide the hospitalisation and discharge, and encouragement to engage in self-care during hospitalisation (38, 45, 55). 'Tell-us Cards' were printed cards provided to patients that invited them to write what is important to them in that moment and for discharge (49, 66, 74). A range of methodologies were used to evaluate interventions including controlled before and after designs (n = 2) (45, 55), qualitative design (n = 2) (53, 72), randomised post-test design (n = 1) (38), descriptive mixed-methods design (n = 1) (66), cross-sectional intervention design (n = 1) (67), quasi-experimental design (n = 1) (49), intervention mapping (n = 1) (74) and case study (n = 1) (47).

Deductive content analysis results

The frequency of studies coded to each phase of the Interactive Care Model was calculated. In noninterventional research (top right quadrant of Fig. 2), the 'assess the person's capacity for engagement' (n = 27, 81.8%) and 'exchange information and communicate choices' (n = 29, 87.9%) were frequently represented. Just over half of the noninterventional studies (n = 18, 54.5%) addressed 'appropriate interventions determined', and only 15.2% (n = 5) explored 'planning between people and clinicians'. 'Evaluate regularly' was missing in studies.

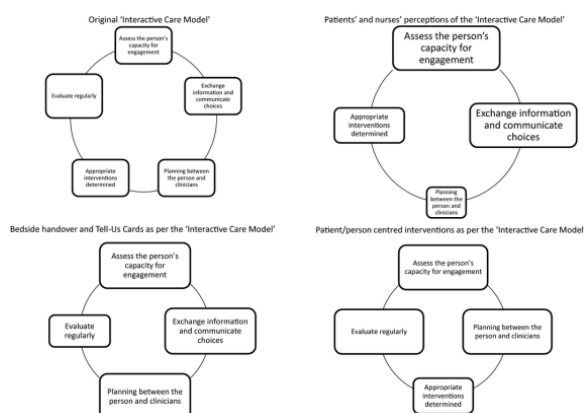


Figure 2 Mapped data. Note. Larger rectangles represent more studies that had evidence of the category.

For interventional research, Fig. 2 (bottom left and right quadrant) shows that 'assess the person's capacity for engagement' (n = 10, 100%) and 'planning between people and clinicians' (n = 9, 90%) were frequent features of research interventions. Differences in interventions were seen. Bedside handover and Tell-Us Cards did not

promote patient engagement in 'appropriate interventions determined', while person/patient-centred care interventions did not show clear evidence of patient engagement in 'exchange information and communicate choices'. 'Evaluate regularly' was more evident in person/patient-centred interventions (n = 3/3, 100%), when compared to bedside handover and 'Tell-Us Cards' (n = 3/6, 50%).

Data grouped under each category were distilled into 42 actions that aligned with the Interactive Care Model. Actions were presented in separate column in Table 4 because they differed across interventional and noninterventional research and patient and nurse views in noninterventional research. A description of the nature and frequency of actions for each phase of the Interactive Care Model is provided below.

Table 4. Actions that promote patient engagement in healthcare, as per the Interactive Care Model

	Exploring perceptions (noninterventional research)		Testing interventions (interventional research)		
Actions	Patient perceptions	Nurse perceptions	Bedside handover	Patient/person- centred interventions	Tell- us Cards
Assess the person's capacity for engagement					
Assess specific patient factors	(35, 36, 38, 39, 47–54)	(33–46)	(55–57)	(30–32)	(58–60)
Nurse appears genuine, interested and actively listens	(54, 65)	(34, 40, 43, 45, 69)	–	–	–
Nurse encourages patient story-telling	(54)	(37, 40, 43, 45, 63, 64)	–	–	–
Build the nurse patient relationship	(54)	(34, 40, 43, 64)	–	–	–
Use routine hospital communication activities to assess specific patient factors such as discharge consultations and bedside handover	(35)	(35)	(55–57)	–	–
Assessment tool used by nurse to document specific patient factors, prior to hospital admission or on hospital admission	–	–	–	(30–32)	–
Card used daily by patient to document specific patient factors	–	–	–	–	(58–60)
Nurse asks patient questions	(54)	(40, 45)	–	–	–
Regular (i.e. daily) assessments, such as verbal pain rating scales and Likert scales to assess dyspnoea and fatigue	(66)	(66)	–	(30)	–
Exchange information and communicate choices					
Nurses provides patients with choices around components of care including clothing, dressing changes, family visits, food, hygiene, hospital discharge decisions, medication administration, participation in therapy, self-care and/or symptom management	(35, 38, 48, 51, 65–67)	(33–35, 37, 38, 40, 41, 44, 61–64, 66, 67)	–	–	–

Nurse provides patients with up-to-date information including the patient's procedures, symptoms, care and presents options to inform their choice/decisions	(38, 49, 54, 66, 68)	(34, 38, 40–44, 61, 62, 64, 66, 69)	–	–	–
Patient sufficiently engages in dialogue with nurse prior to making choice/decisions	(38, 48, 52, 53, 65, 68)	(34, 40, 43, 69, 72)	(55–57, 70)	–	–
Patient understanding is checked by nurse or patient	(36, 46, 51)	(34, 35, 39, 42, 43)	(55–57, 70)	–	–
Patient argues for their preferred choice, especially if an uncommon choice or refusing treatment	(50–53)	(38, 40, 44, 63)	–	–	–
Nurse provides tailored information to the patient	(51, 54, 65)	–	(55–57, 70)	–	–
Patient verbally asks questions to seek relevant, personalised and needed information	(46, 48, 68)	(40, 43, 61, 62)	–	–	–
Nurse prompts patient questions	(51)	(43)	(55–57, 70)	–	–
Nurse provides shortened and simplified information to the patient	–	(37, 42, 43, 61, 63, 64)	–	–	–
Patient writes questions	(71)	(43)	–	–	(58–60)
In addition to verbal information, the nurse provides other information sources to the patient such as written and electronic forms	(65, 68, 71)	(40)	–	–	–
Patient confirms accuracy of information nurse shares	–	–	(55–57, 70)	–	–
Use routine hospital communication activities such as team meetings, ward rounds and bedside handover	(71)	(69)	–	–	–
Planning between people and clinicians					
Make goals visible to the patient and nurse, for example care diaries ^b , documented patient-centred care plans, patient care boards, patient-visible medical records and Tell-Us Cards	(68, 71)	(40, 45, 64)	–	(30–32)	(58–60)
Set daily goals	–	(40, 64)	(55, 70)	(30–32)	(58–60)
Set long-term goals	–	(40)	–	(30–32)	–
Actively use patients' written goals during routine hospital communication activities such as ward rounds and discharge education sessions	–	–	–	–	(58–60)
Set mutually agreed goals, between patient and nurse	–	(40, 45, 64)	–	–	–
Set precise and manageable goals	–	(45)	(55, 70)	–	–

Nurses encourages, reinforces, and checks progress towards goals often and celebrates achievement of goals	–	(40, 64)	–	–	–
Appropriate interventions determined					
Patient undertakes self-care and management while hospitalised including: monitoring temperature, symptoms and fluid balance; self-administering medication under supervision; undertaking activities of daily living, usual routines, mobilisation; and/or maintaining continence and recovery	(38, 49, 71, 72)	(33–35, 38, 41–45, 72)	–	(30)	–
Nurse sporadically/opportunistically provides education to patient to enable self-manage at home, including topics like follow-up care, illness learning, medication management, symptom management, wound care, healthy eating, exercise and pressure injury prevention	(38, 48, 49, 65, 72)	(38, 72)	–	–	–
Nurse tailors patients' self-management of hospital activities to patient capability	(48, 49, 53, 71, 72)	(42, 72)	–	–	–
Provide patient with secondary source of self-management education, for example electronically or printed brochures	(64)	(40)	–	–	–
Use patient-led checklist to prompt patient engagement in self-care and discharge procedures	–	–	–	(31)	–
Evaluate regularly					
Evaluate patient and nurse perceptions of intervention	–	–	(55, 57, 70)	(30–32)	–
Evaluate patient length of stay	–	–	–	(30–32)	–
Evaluate patient quality of life	–	–	–	(30–32)	–
Evaluate patient readmissions	–	–	–	(30–32)	–
Evaluate patient perception of quality of care	–	–	–	–	(58, 59)
Evaluate patient-reported physical function	–	–	–	(30, 31)	–
Evaluate patient satisfaction	–	–	(56)	–	–
Evaluate use of intervention	–	–	–	–	(59)

^a Defined as an interactive interplay between the patient and nurse, which drew the patient in to open up, emerge and share information verbally.

^b Defined as a document describing why the patient is in hospital, what is planned and what to expect when returning back home.

Assess the person's capacity for engagement

Assessing specific patient factors was identified as the most common action for this phase of the Interactive Care Model in 83.7% studies. Patient factors that were most frequently suggested as requiring assessment included patient ability to communicate in the same language as the nurse, age, coping style, current health status and symptoms, current needs and needs postdischarge, level of education, family member involvement, fears and concerns, knowledge of condition, motivation, preference for engagement in care, physical and mental ability/capability, previous experience with illness and hospitalisation, resources available, social and emotional status, timepoint in illness/treatment journey, and usual routines and everyday life (34, 38–43, 4547–51, 55, 58–62, 64–69, 71–75, 77). In noninterventional studies, nurses (24.2%) and patients (6.1%) perceived nurses' communication as an action that promoted assessment of patient factors, such as actively listening, encouraging patient story-telling and using tactics to build relationships with the patient. Conversely, in interventional studies, nurses frequently utilised more formalised actions to assess patient factors such as assessment documents (38, 45, 55), cards (49, 66, 74) and routine hospital communication activities (47, 67, 72).

Exchange information and communicate choices

Providing patients with choices around components of care was the most frequent action for this phase of the Interactive Care Model mentioned by nurses (42.4%) and patients (21.2%) in noninterventional studies (33, 34, 37, 40, 41, 46, 48, 50, 54, 57, 60, 62, 63, 70, 73, 75, 77). To facilitate patient choice, patients and nurses often stated that nurses should provide up-to-date information about the patient's procedures, symptoms and care, and present options (33, 34, 37, 43, 51, 52, 54, 57, 60, 61, 71, 73, 75–77). Engaging patients in dialogue to support their choice/decision-making, checking patient understanding and tailoring information to the patient were actions that supported this phase and were evident in bedside handover interventions and noninterventional research (47, 53, 67, 72).

Planning between people and clinicians

The most frequent actions for this phase, which were supported across 80.0% of interventional and 15.2% of noninterventional studies, were the importance of using structures to make goals visible to patients and nurses, and setting daily goals (33, 34, 38, 45, 49, 53, 55, 56, 66, 72, 74, 76). In noninterventional research, nurses were able to identify more actions ($n = 6$) to promote this phase than patients ($n = 1$).

Appropriate interventions determined

Promoting patient participation in self-care and management while hospitalised was the most frequent action identified for this phase of the Interactive Care Model. In noninterventional studies, nurses stated this action in 30.3% of studies and patients in 12.1% of studies. Two interventions had actions that promoted patients' self-care/management (45, 55). Only one of these interventions formalised this action through use of a patient-led checklist (55). The second most frequent action in this phase was nurses opportunistically providing patients with self-management education (41, 44, 46, 51, 77); however, this was based on patient and nurse perceptions only, and not tested in interventions.

Evaluate regularly

This phase of the Interactive Care Model was not evident in noninterventional studies. In interventional studies, researchers frequently evaluated patient and/or nurse perceptions of the intervention, particularly for bedside handover (38, 45, 47, 53, 55, 72). In one bedside handover study, the intervention did not impact patient satisfaction (67). Patient/person-centred intervention studies involved the widest range of evaluation measures. Patient/person-centred interventions influenced length of stay in two studies (45, 55) but not in another study (38). Physical function performance at discharge improved for the intervention group in one study (45) but not in another (55). Quality of life, readmission rates, overall satisfaction and perceptions of nurses were not influenced by patient/person-centred interventions (38, 45, 55). Patient perceptions of quality of care were

often measured for 'Tell-Us Cards'. In one study, the highest mean scores were for 'being respectful towards the patient' and 'my family was treated well' (66), and significant differences were found between groups for opportunities to participate in decisions about nursing and medical care (49). The intervention may have influenced patient engagement; 80% of patients used 'Tell-us Cards' daily or at least once during their hospital stay (49).

Discussion

In summary, we found 42 actions in the scientific public literature that aligned with the Interactive Care Model. Thus, we propose the following as ways to operationalise each phase of the Interactive Care Model in nursing practice. The 'assess the person's capacity for engagement' phase can be fostered by assessing patient factors by a nurse with good interpersonal skills in a documented manner. The 'exchange information and communicate choices' phase is promoted through nurses providing patients with choices around hospital activities like nutrition, hygiene and medication administration; there must be sufficient nurse–patient dialogue for patients to make choices and/or decisions. The 'planning between people and clinicians' phase can be actioned through written goals. 'Appropriate interventions determined' is facilitated through patients undertaking hospital activities to promote their self-management like monitoring symptoms and self-administering medications. Finally, 'evaluate regularly' is strengthened through measuring patient and nurse views' of interventions and evaluating outcome measures like length of stay, quality of care and readmission rates. In our review, we found differences between interventional and noninterventional research, these will be discussed, to highlight research–practice gaps.

In this review, patient engagement in assessment was a frequently identified as an enabler of the Interactive Care Model. A key finding uncovered in our review is that intervention components promoting assessment were more formal, such as documentation tools, than actions suggested by patients and nurses in noninterventional research. Researchers have demonstrated that nurses' documentation infrequently reflects patient engagement in healthcare (78). Documentation requirements often do not include patient-centred items, meaning nurses may undertake care to meet the needs of the documents rather than the patient's needs (78). Introducing nurse documentation that incorporates elements of engagement may ensure that nurses are promoting patient engagement in a methodical and transparent way. Rigorously developed and psychometrically tested questionnaires have been developed to assess patients' capacity and preference for engagement (79–81). Researchers could undertake implementation research to test the feasibility and acceptability of embedding these novel tools into nurses' usual practice.

In this review, interventions that promoted routine communication activities, like bedside handover appeared to provide intentional and set opportunities for patient engagement in assessment, choice/decision-making, information-sharing and goal-setting dialogue. Bedside handover, intentional rounding and ward rounds are all routine communication activities that provide opportunities for shared dialogue with patients; however, researchers have shown that implementing these activities does not necessarily equate to patient engagement (82–84). Instead, nurses can become task-orientated during these activities, gaining the information they require from patients without sufficient patient engagement (82–84). For routine communication activities to be truly patient-centred, nurses must incorporate information shared by the patient into the care plan (22). Researchers suggest that nurses may lack the theoretical knowledge and skills required to deliberately engage patients in dialogue, further, implementing patient engagement in routine hospital care is a significant change to current practice (7).

Patient engagement in planning was evident in both interventional and noninterventional research. Traditionally, settings like rehabilitation and mental health (85, 86) have adopted a more patient-centred approach to goal-setting, and it is promising that many nurses in our review accepted patients' role in planning,

as traditionally acute care nurses have made plans away from the patient (23). Researchers have found that nurses' dominant approach towards planning stems from their tendency to plan and undertake tasks in a habitual manner, as it is perceived as easier and quicker to accomplish (87). However, when plans are made without patient input, nurses may deny patients' needs (88). The frequency of patient engagement in planning across interventional and noninterventional research found in this review may represent a shift towards closing a theory–practice gap. For instance, nurses relinquishing power and control are a precedent to patient engagement (10) and enable patient empowerment theories (89). However, these findings need to be interpreted with caution as most research has been conducted in Europe, and goal-setting may be less accepted and implemented in other settings.

It was promising that patient and nurses were able to suggest ways to support patients' ownership of self-management in hospital; however, there was less focus on supporting patient self-management once home. While nurses have reported high self-efficacy in their ability to support patients' self-management, they require new competencies to facilitate this in clinical practice (90). Consistent with our review, other researchers have found that nurses have knowledge gaps in competencies that relate to helping the patient self-manage in their daily life once home and arranging follow-up interventions (91). The lack of interventional research identified in our review highlights research opportunities for novel interventions to promote patient engagement in self-management. Researchers have found that nurse attitude towards patients' self-management influences their practice (91). Nurse attitudes include 'coaching' attitudes where nurses aim to help patients incorporate disease as part of their life, whereas nurses with a 'clinician' attitude view adherence as the most important goal in order to control the disease (91). Nurses' tendency to take a 'clinician' stance towards self-management reflects a biomedical model approach to care, where they view their job as stabilising patients and managing their signs and symptoms without patient input (92); changes to this embedded practice are required. Thus, research interventions may need to enable a radical shift in nurses' mindset from feeling responsible for undertaking self-management for patients while in hospital, to supporting patients to self-manage once home.

In our review, there was no evidence of patients' and nurses' role in evaluating patient engagement in practice. Evaluation forms part of the 'nursing process', a systematic theory-based approach to reasoning and problem-solving during nursing care, taught to student nurses (93). Fundamentally, nurses are obliged to evaluate the outcomes of their own practice (94), but often lack enthusiasm to do so (93). In our review, the only evaluative actions that occurred were by researchers in interventional studies. Preliminary data suggest that patient satisfaction, length of stay and patient-reported physical function could be influenced by patient engagement interventions. Yet, most researchers did not report how much patients engaged in intervention components, which is important given patient engagement can range from passive to active (5). Ultimately, the level of patient engagement that occurs as a result of interventions could be a mediating factor for outcome measures. Future researchers would benefit from measuring levels of patient engagement to clarify the mechanism by which positive outcomes are produced, check whether intervention components successfully change patient engagement levels and modify interventions based on these findings (95). However, there are few approaches to measuring patient engagement. Graffigna et al. (96) have developed and psychometrically tested a questionnaire to measure self-reported patient engagement, which could facilitate measurement of this potential mediating variable.

Limitations

It is possible that some published studies were missed; to mitigate this, we created a search strategy with a health librarian and undertook both forward and backward search strategies to augment electronic searching. This review is at risk of publication bias, because grey literature was excluded to reduce the volume of studies; however, this is common in scoping reviews (18, 97, 98). Studies published in languages other than English were

excluded as we did not have the resources to translate studies. In addition, studies published earlier than 2008 were excluded; however, studies earlier than 2008 may be of limited value due to conceptualisations of patient engagement and associated terms being more paternalistic. Our analysis was interpretative; however, having a team member check the summarised findings strengthened the credibility of findings.

Recommendations

The differences between interventional and noninterventional research highlights recommendations for further education and research. Ultimately, these recommendations would further promote each phase of the Interactive Care Model, which can in turn facilitate clinical practice. First, to formalise the 'assess a person's capacity for engagement' phase, implementation of psychometrically tested patient engagement assessments could occur under research conditions, to test these novel tools for feasibility and acceptability in clinical practice (79–81). Second, to promote the 'exchange information and communicate choices' phase, there is education and research required to make routine communication activities deliberate opportunities for higher levels of patient engagement. Researchers recently developed and piloted the NET-PES programme, which includes training nurses in practical patient engagement skills, including competence in patient-centred communication and relational skills. This intervention was found to affect nurses' attitude towards patient activation and self-management behaviours, confidence in enacting patient engagement and satisfaction (7). Others could look to this programme for training ideas. Third, actions for 'planning between people and clinicians' were well-defined, exploring these actions in settings other than Europe is required.

Fourth, for 'determine appropriate interventions' there are opportunities to develop and test individualised interventions that empower patients while hospitalised to self-manage their healthcare long-term once home. These self-management interventions could include pathways, reminders, action alerts, web-based resources, technology and support groups (22). Further, developing competencies for nurses in supporting self-management would be beneficial. Finally, to enact the 'evaluate regularly' phase researchers need to develop tools to measure patient engagement and consider this as a mediating factor when testing patient engagement interventions. Ways for patients and/or nurses to assess patient engagement in clinical practice is under explored and requires further research.

Conclusion

Over 40 studies have been published in the last 11 years that have actions that promote patient engagement, as per the Interactive Care Model. Our review contributes to the growing work on the Interactive Care Model by further defining each phase of the model to guide nurses' practice. In our review, nurses were able to identify many actions for early phases of the Interactive Care Model, including assessing patient capabilities and preferences and involving patients in sharing information, communicating choices and decision-making. This is consistent with a more limited view of patient engagement that does not fully mobilise the patient as a partner in his/her healthcare. Given that we cannot assume that nurses' views equate to actual practice, and if we want to see nurses undertaking a systematic approach to patient engagement in hospitals, more research is required to formalise each step of the Interactive Care Model in practice. This review also highlights that there is opportunity for interventional researchers to be more progressive, by testing strategies that promote latter phases of the Interactive Care Model, like self-management beyond hospitalisation. These higher levels of patient engagement are advocated internationally to improve patient outcomes and the quality and safety of healthcare; thus, there is a real need to push the boundaries if these outcomes are to be achieved. These patient engagement interventions need to be evaluated for levels of patient engagement and against clear outcomes. It is critical to build the evidence for patient engagement on outcomes like length of stay and physical function, to get people to buy-in to the practice. However, these interventions will not represent the real world

of clinical practice; thus, once interventions are shown to be effective, implementation research will be crucial to introduce the Interactive Care Model, and the supporting interventions, into clinical practice.

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