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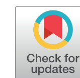
Research paper

# Multidisciplinary evaluation of an emergency department nurse navigator role: A mixed methods study



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ABSTRACT

*Aim:* To utilise multidisciplinary staff feedback to assess their perceptions of a novel emergency department nurse navigator role and to understand the impact of the role on the department.
*Background:* Prolonged emergency department stays impact patients, staff and quality of care, and are linked to increased morbidity and mortality. One innovative strategy to facilitate patient flow is the navigator: a nurse supporting staff in care delivery to enhance efficient, timely movement of patients through the department. However, there is a lack of rigorous research into this emerging role.
*Design:* Sequential exploratory mixed methods.
*Methods:* A supernumerary emergency department nurse navigator was implemented week-off-week-on, seven days a week for 20 weeks. Diaries, focus groups, and an online survey (24-item *Navigator Role Evaluation* tool) were used to collect and synthesise data from the perspectives of multidisciplinary departmental staff.
*Results:* Thematic content analysis of cumulative qualitative data drawn from the navigators' diaries, focus groups and survey revealed iterative processes of the navigators growing into the role and staff incorporating the role into departmental flow, manifested as: *Reception of the role and relationships with staff*; *Defining the role*; and *Assimilation of the role*. Statistical analysis of survey data revealed overall staff satisfaction with the role. Physicians, nurses and others assessed it similarly. However, only 44% felt the role was an overall success, less than half (44%) considered it necessary, and just over a third (38%) thought it positively impacted inter-professional relationships. Investigation of individual items revealed several areas of uncertainty about the role. Within-group differences between nursing grades were noted, junior nurses rating the role significantly higher than more senior nurses.
*Conclusion:* Staff input yielded invaluable insider feedback for ensuing modification and optimal instigation of the navigator role, rendering a sense of departmental ownership. However, results indicate further work is needed to clarify and operationalise it.
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## 1. Introduction

Hospital and emergency department (ED) crowding is a major international issue,[1] affecting patients and staff,[2–4] and quality of care.[5–8] ED crowding is linked to staff stress,[9] decreased staff satisfaction and retention,[2] prolonged inpatient length of stay (LoS),[2,3] and has financial implications.[10,11] Access block has been linked to increased ED and hospital LoS, ambulance diversion, morbidity and mortality.[3,9,12]

At the time of this study, the Australian National Emergency Access Target (NEAT) had been introduced with the aim of improving patient throughput, thus alleviating potential backlog and overcrowding, and avoiding access block. It required 90% of ED presentations to be admitted, transferred or discharged within four

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hours,[13] a stipulation subsequently paused at 83% in response to the Queensland Clinical Senate's commissioned research findings.[14,15] The *Blueprint for Better Healthcare in Queensland*[16] outlined structural and cultural improvements, reiterating the Metropolitan Emergency Department Access Initiative[17] that aimed to improve patient access to ED. Directives to correct system deficiencies included *Guidelines for the Implementation of the Clinical Initiatives Nurse* (CIN) *Role in EDs.*[18] The primary purpose of this role is to improve Patient Off Stretcher Time (30-min handover target), patient flow through ED, and handover processes, and to provide care to patients in the ED waiting room.[19] While the CIN role is purported to have achieved timely intervention and reduced did-not-wait rates,[20] the role varies in description and execution,[21] with little evidence regarding outcomes,[22] albeit some anecdotal evidence that the position assists in wait time reductions.[21] A key characteristic is that CINs are generally assigned to the front end of the department, initiating treatment before patients are seen by medical staff.[22]

A complementary, more apposite solution for improving patient flow is the emerging role of ED navigator, a nurse that monitors and expedites patient movement through the department by supporting staff in delivery of care, and facilitating the patient's journey through ED to ensure it is efficient and timely. Introduction of navigators was reportedly one of the most effective initiatives in Western Australian Health's successful attainment of NEAT targets, improving performance "about 15% overnight"[23] by their monitoring of the timeline of every patient and encouraging timely bookings, referrals, decision-making and patient transfer/discharge. An American study demonstrated success with a similar role, the 'pivot' registered nurse (RN), reducing door-to-door provider time by 10 min, LoS by one hour, and patients that left before treatment commenced by 2.5%.[24] However, a review of ED staffing after the introduction of navigators in Western Australian public hospitals recommended that the role be re-examined, clearly defined and evaluated,[25] particularly given the paucity of research in the literature. Concern was also expressed about bullying behaviours of incumbents in the role.[25] A longer follow-up was also recommended[26] as current literature is premature in evaluating the effect of a nurse navigator on clinical outcomes, and various government reports tend to detail implementation of the role without supporting evidence and in the absence of valid controls. This lack of peer-reviewed studies evaluating the navigator role highlights a gap in current knowledge and the need to gather rigorous evidence regarding this emerging role, especially perceptions of the role held by the staff of the clinical context in which it is enacted.

## 2. Methods

### 2.1. Aim

The aim of this study was to utilise multidisciplinary staff feedback to assess their perceptions of a novel ED nurse navigator role and to understand the impact of the role on the department.

### 2.2. Design

This study utilised a sequential exploratory mixed methods approach with emphasis placed on the qualitative component in order to better understand the role and its impact. Qualitative data were collected using focus groups and the navigators' diarised observations. This was followed by quantitative data collection using an online survey. This evaluation was part of a larger controlled trial that objectively assessed the effects of a nurse navigator on NEAT and other time-based outcomes.[27] Ethical approval was obtained from the Hospital Research Ethics Committee (HREC/14/QPCH/23). Staff participation was voluntary and all participants provided consent. To ensure confidentiality all data are de-identified.

### 2.3. Setting

The study was conducted in the ED of a 630-bed suburban, tertiary hospital during May 2014–May 2015. The ED had experienced recent growth through rapid expansion, having transitioned to co-located adult and paediatric services.[28] The annual number of presentations was around 13,000 at the end of 2006. This rose significantly to 21,000 when it was first opened as a tertiary ED in 2007, and increased rapidly to 71,850 presentations (52,298; 73% adults) in the year the navigator was implemented (2014), and with respect to case-mix and complexity.

### 2.4. Implementation phase

A supernumerary nurse navigator role was implemented on a week-off-week-on basis for a 20-week period involving nearly 20,000 presentations during the whole 20-week period. A navigator worked eight hours per day during the peak activity period of 12.30–20.30 h, seven days per week. This rostering process allowed for comparison to be made between the weeks of the nurse navigator and the weeks without. It also served to mitigate ED staff confusion regarding navigator on/off days, to offset possible delayed effects of the role, and for pragmatic planning of the incumbents' workload. Their role was to facilitate patients' movement through ED while freeing team-leaders to focus on overall flow. This was achieved by monitoring patient timelines, flagging those approaching target times or stalled in processes, identification and troubleshooting of crisis areas, and undertaking time-consuming tasks such as coordination of bookings/patient transfers, updating patient information, and expediting referrals and decision-making. Two senior, highly experienced ED nurses were recruited from within the department to the navigator role. They were identified by cyclamen-coloured shirts labelled 'Nurse Navigator'. When not in that role, they worked their usual roster in their senior capacity.

### 2.5. Evaluation phase

To evaluate the navigator role from a multidisciplinary perspective, data were collected during and after the implementation phase using three methods: daily diaries; focus groups; and an online survey.

#### 2.5.1. Data collection

Throughout the 20-week implementation phase, the navigators maintained a regular, reflective diary to provide an insider's view of working in this novel role. Using an electronic notebook, they were instructed to detail daily activities, observations and reflections that they considered were significant.

Focus groups were convened midway (to capture staff feedback and to allow for potential role modification; which was not required) and at the conclusion of the implementation phase (to gather further staff feedback and recommendations). A purposive sample of ED staff (multi-professional) that had worked during the implementation phase was invited to participate via posters displayed throughout the department and presentations at in-service sessions. All who responded were included. The focus groups were facilitated in an ED tutorial room by the same member of the research team (external to the ED), recorded and lasted from 30–60 min. Scheduling was dictated by shift timetabling and where possible, tailored to dovetail with other sessions in order to capture staff already stepped out of the clinical environment.

However, participation on the day was often opportunistic, dictated by variable department activity and resultant participant availability at that time. Utilising open-ended questions, all participants were asked to describe the navigator role, what was working well, what was not working well, suggestions for modifications to the role, and whether they would recommend the role to another ED.

Following completion of the implementation phase, to provide an accumulated summation, all staff were invited to participate in an online survey. Quantitative data were collected using the *Navigator Role Evaluation* tool, adapted (with permission) from the Nurse Practitioner questionnaire.[29] It comprised twenty-four items and was used to evaluate perceptions of the nurse navigator role from members of the healthcare team. To reduce the risk of rote responses, items were randomly phrased either negatively or positively. Responses were rated using a 5-point Likert scale ranging from 'strongly disagree' to 'strongly agree' with 'unsure' as a middle value. An open-ended question also provided an opportunity for qualitative comments.

#### 2.5.2. Data analysis

Qualitative data from the diaries, focus groups and survey were transcribed and considered as a single dataset. Concurrent thematic content analysis was undertaken by two of the researchers using the framework of Braun and Clarke.[30] Through systematic questioning and reflection on the transcripts, essential phrases were highlighted, coded, grouped according to topic, and collated according to theme. Study processes ensured methodological trustworthiness, demonstrating rigor through credibility, dependability and transferability.[31] Credibility was confirmed via feedback from delegates at an international ED nursing conference. Study processes were documented to ensure a rigorous audit trail,[32] confirming the study's dependability and enabling other researchers to replicate it or extrapolate the findings in a comparable setting.[33]

Quantitative survey data were imported into a statistics software package (SPSS™ version 23) for analysis. Item scores were then recoded so that they were weighted towards positive responses e.g. strongly agree with a negative statement = score 1; strongly agree with a positive statement = score 5. The minimum and maximum sum scores were 24 and 120, respectively. Descriptive statistics and inferential statistics were used to analyse the data. Sum scores were treated as parametric data and item scores as non-parametric. Sum scores are described using mean and standard deviation (SD) and differences were analysed using *t*-tests. As a Likert scale was used to measure strength of agreement with individual items, median and mode averages are given. Differences in item scores were analysed with Mann-Whitney U tests. Significance was set at $p < .05$.

## 3. Qualitative findings

Both nurse navigators provided their diaries for analysis. Thirty eight ED staff from nursing, medicine, allied health, porterage, patient liaison and administration participated in the focus groups (see Table 1) and 22 (33% of respondents) staff provided qualitative comments within the online survey.

Analysis of the cumulative data revealed the iterative processes of the navigators growing into the role and the ED incorporating the role into departmental flow in a succession of: *Reception of the role and relationships with staff*; *Definition of the role*; and *Assimilation of the role*. This progression reflected the stages commonly exhibited in group development of: initial forming, characterised by caution and uncertainty; subsequent storming, in which some resistance and negotiation of roles occurs; norming, a more cohesive time of mutuality and consideration of alternatives; and performing, in which acceptance and fuller involvement engender constructive action.[34]

### 3.1. Reception of the role and relationships with staff

This theme describes how the navigators were initially somewhat unsure about their role, which was mirrored in the experiences of their colleagues. It also highlights the role negotiation that occurred as they progressed towards a shared understanding of the role and how it should be managed.

The navigators (Nav1 and Nav2) documented their initial '*finding my feet*' (Nav1) and '*at times felt a little "out of place*"' (Nav2), while negotiating various subtle tensions and obstructive behaviours that appeared to emanate from staff who were unsure of the navigator role and how to modify their own role to interact with it, as the navigators simultaneously orientated into their role.

Nurses used words such as '*leadership*', '*directing*', and '*speeding up flow*' to describe the navigator and several participants thought the role should be more clinical than directive. Some, especially shift coordinators, were initially unsure of the navigator's reporting structures and directive responsibilities, with resultant confusion and frustration. This resolved as the intervention progressed, reflecting the concomitant adaptation of ED process and the changes in staff group interactions in order to accommodate and work with this novel role. Nurses reported appreciating that the navigator was watching times and bed allocations on their behalf, and communicating these to them at the bedside, as the tyranny of care often prevented nurses from adequately doing so themselves in a timely or regular manner, as one RN conveyed: '*I find it really hard to get away from the bedside a lot to discuss with the shift coordinator or even a doctor…*'.

Nurses recommended the navigator facilitate movement rather than take control of it. They sought a clearer description of the role and communication processes. Clearly personality and modus operandi were moderating factors. While one senior medical officer (SMO) expected the navigator to be more '*proactive*', but was lacking '*necessary power and authority*', an RN deemed them '*another chief*'. Another SMO was '*keen to see role develop*', but with '*improved systems/teamwork*', acknowledging that the navigators were '*limited by the system in which they work*'. Support for the role included provisos such as this senior RN's: '*It requires the right person*'.

**Table 1**
Focus group participants ($n = 38$).

| Group | Professional group (n) | Professional participants (n) | Other participants (n) |
|---|---|---|---|
| Midway during implementation | Medicine (5) | SMO (3), JD (2) | |
| | Nursing (9) | CNC (2), RN (8) | |
| | Nursing (6) | CNC (1), nurse unit manager (1), RN (4) | |
| | Multidisciplinary (3) | CNC (1), JD (1), SMO (1) | |
| Following implementation | Multidisciplinary (7) | CNC (1), RN (5) | Porterage staff (1) |
| | Multidisciplinary (5) | Physiotherapist (1) | Administration staff (3), community liaison staff (1) |
| | Medicine (3) | JD (1), SMO (2) | |

CNC, clinical nurse consultant; JD, junior doctor; RN, registered nurse; SMO, senior medical officer.

Medical staff generally embraced the concept, and reported missing the navigator when one was not rostered. They noted a key sphere of navigator efficacy in the often challenging movement of patients out of ED, where clear communication between the navigator and inpatient team '*made an extraordinary difference*'. They cautioned against navigators getting caught up in assisting with care to the detriment of the overall departmental view that they recognised as the hallmark of the position and invaluable in relieving them to focus on clinical diagnosis and care rather than NEAT targets. Several doctors were cautious, a senior one observing: '*Some nurses work better together than others … The role's still evolving, and the team leader sometimes felt that they're both were doing the same job … created a tiny bit of friction*'.

### 3.2. Defining the role

This theme describes the emergence of a more common understanding of the role. Having moved on from their initial negotiation of role, the navigators and staff were beginning to clarify operational aspects of the role, which in turn enabled the navigators to function more effectively. As a result, staff became aware of positive outcomes associated with the role.

From initial perceived resistance that was '*mildly obstructive to start off with*' (Nav1), the navigators then recorded staff becoming more receptive and: '*more understanding of the role*' (Nav1), to being welcomed by a shift-coordinator's: '*Thank God you're here*' (Nav2). Medical staff recommended the navigator be '*senior, independent*', '*understands ED processes*', have '*strong communication skills,*' and a '*defined role*'. One SMO extolled it as: '*an opportunity for an advanced nursing role.*' Doctors depicted the navigator role as '*co-ordination*', '*troubleshooting*', '*focused movement of patient flow and care*' and '*a role that's very much welcomed.*' One doctor appreciated: '*having somebody focused: A very positive influence on the department … When it's busy, we lose track, especially in patients who're sitting on the borderline … So that's made the navigator really helpful.*'

One RN described the navigator's role as facilitating: '"*What are we waiting for with this patient?" and chasing the doctors up …and that worked well*'. This however, revealed several intrinsic issues around communication and the need for clarification: '*It's nice to have someone come and tell you that the patient's ready to go, but when the shift coordinator's told you, then the navigator … then the doctor … all the same thing three times … I find it frustrating*'. Another RN evaluated communication thus: '*You actually shouldn't be hearing from them too much because the ideal thing is they identify the patient needs to go to the ward … takes those pieces, puts them together.*' This was depicted by a senior RN as a '*feedback loop*' whereby the navigator could affect flow by going ahead and doing, making '*a difference that perhaps we don't even realise*'. A physiotherapist gave conservative feedback, feeling that the role did not impact upon their interprofessional working. A wardsperson complemented the discussion: '*Sometimes I pressure them to get things going because I know what has to be done, so I just get in there and do it … make sure things flow.*'

Administrative personnel welcomed the navigator as a '*first point of contact*' and observed an overall effect: '*It actually got people out of the department faster, so it was less time for us to do the paperwork …you were left panting for breath!.*' Their observations of communication included: '*people disappearing to other areas and no one tells you a thing.*' A positive was the navigator facilitating movement to the short stay unit, which '*freed up the beds a lot faster because the nurse at that area didn't actually have to leave to take the patient and do the handover.*'

### 3.3. Assimilating the role

This theme describes acceptance of the navigator role but revealed some enduring tensions related to roles and boundaries. Whilst the role was better understood, and the effects of context and personality were acknowledged, there remained a concern that it still required further articulation in the form of operational guidelines.

From originally reporting: '*First two weeks … quite a bit of negativity and resistance … but now becoming easier to slot into the department*' (Nav1), the navigators finished feeling '*well-utilised and appreciated*' (Nav1) in the final weeks, mirroring somewhat the department's experience. Most focus group participants would recommend the role to another ED but with defined guidelines regarding role and responsibilities. These would adjust for context-specific and personal characteristics of the navigators, both of which influenced the role's enactment in practice. While participants tended to reflect on the navigator's overt value, there were indeterminate aspects described by one senior doctor:

> '*There're unmeasured aspects … that clearly need further thought. By this I mean care … something that's very difficult to measure because it's like pain … a subjective feeling, the care we provide and the care the patient feels. My observation was that the navigator did contribute to care.*

Regarding value-adding, a senior RN suggested: '*Medical staff continued to do what they want and unless they're open to patient flow then a nurse will not help this,*' while others extolled the role for its propensity to '*expedite care.*' Another senior RN suggested: '*Keeping this as a nursing role reinforces that nursing's the group responsible for patient movement, when a team focus on quality clinical care and timely movement is more important.*'

One RN offered a concise summation:

> '*Their actual role was initially not fully understood but … with understanding they became utilised correctly … Especially for junior or new nurses … the navigator helped them with … time management … aided in meeting NEAT targets … A fabulous addition to our department …immense help to both patients and all staff.*'

## 4. Quantitative results

### 4.1. Respondents

Of the 76 valid survey responses received, 10 respondents did not complete the questions about the navigator role. The remaining 66 completed surveys were included in the analysis. The largest professional group was nurses (51.5%, $n = 34$), and most respondents (56%, $n = 37$) had worked in the ED for between one to five years (see Table 2). They included RNs at Queensland Health grade 5 (base level, junior or new graduate), grade 6 (clinical nurse) and grade 7 (clinical nurse consultant or nurse unit manager).

### 4.2. Scale reliability

The *Navigator Role Evaluation* scale demonstrated very good internal consistency, with a Cronbach alpha coefficient of .94. Corrected item total correlation revealed two items with low correlation values, suggesting they could be measuring a different construct to the rest of the scale. However, single item deletion of each item did not affect overall scale reliability.

**Table 2**
Respondent characteristics and evaluation scores ($n = 66$).

| Professional group ($n$, %) | | Years worked in ED ($n$) | | | Evaluation score % (SD) | |
|---|---|---|---|---|---|---|
| | | <1 | 1-5 May | >5 | | |
| Nursing staff (34, 51.5) | Grade 6 or above RN (11, 16.7) | 0 | 2 | 9 | 50.0 (14.4) | 59.4 (15.9) |
| | Grade 5 RN (23, 34.8) | 2 | 16 | 5 | 63.9 (14.9) | |
| Medical staff (22, 33.3) | Senior medical officer (10, 15.2) | 0 | 6 | 4 | 60.4 (16.8) | 58.7 (15.6) |
| | Junior doctor ACEM registered (11, 16.7) | 2 | 7 | 2 | 56.2 (15.5) | |
| | Junior doctor non-ACEM registered (1, 1.5) | 0 | 0 | 1 | 69.1 | |
| Other staff (10, 15.2) | Administration staff (6, 9.0) | 1 | 3 | 2 | 68.6 (11.6) | 60.8 (13.4) |
| | Wardsperson (1, 1.5) | 0 | 1 | 0 | 44.3 | |
| | Allied health staff/HITH nurses (3, 4.5) | 0 | 2 | 1 | 50.9 (3.9) | |
| Totals | | 5 (7.6)% | 37 (56.0%) | 24 (36.4%) | 59.4 (15.3) | |

HITH, Hospital in the home.

### 4.3. Overall evaluation of the navigator role

Following recoding of item scores so that higher scores were aligned with positive responses, sum scores (range 24–120) for the 24 questions were calculated and then expressed as a percentage [(sum score − 23)/97 × 100%] to indicate overall satisfaction. The mean evaluation score was 59.4% (range 33.0–94.9%). In terms of professional group, one-way between groups analysis of variance revealed that nurses' (mean score 59.4%), doctors' (mean score 58.7%), and other staff's (mean score 60.8%) overall evaluations of the Navigator role were very similar [$F$ (2, 63) = .06, $p$ = .94]. However, some within-group differences in overall evaluation percentage score between nursing grade were noted, with grade 5 RNs scoring significantly higher (mean 63.9%) than higher grade RNs (mean 50.0%; $t\,(32) = -2.56$, $p = 0.015$), with eta squared (0.17) indicating a large effect.

### 4.4. Item scores

Each of the 24 role evaluation items was ranked by percentage agreement (see Table 3). The majority of respondents (79%) agreed that the nurse navigator possessed the necessary knowledge for the role, most (71%) felt they understood the role, thought it was safe (68%) and felt the navigator was easy to contact (67%). However, only 44% felt the role was an overall success, less than half (44%) considered the role necessary, and just over a third (38%) thought it had a positive impact on inter-professional relationships. For eight statements, a majority of staff (range 38–53%) indicated that they were unsure about various aspects of the navigator role. When item scores were compared between professional groups using the Mann-Witney U test, greatest discord was found between junior RNs (Queensland Health grade 5) and senior RNs (Queensland Health grade ≥ 6), with medium to large effects (Table 4). Although senior RNs felt they understood the navigator role better (median score 5) than junior RNs (median score 4) ($U = 57$, $z = -2.81$, $p = 0.005$), the junior RNs rated the navigator more positively than senior RNs on all other items.

## 5. Discussion

In light of participants' comments, further refining of the navigator role with regards to communication and definition is

**Table 3**
Navigator role evaluation: item scores.

| Item | [a]Median, mode | [b]Agreement with statement % | | |
|---|---|---|---|---|
| | | Disagree | Unsure | Agree |
| I am worried that the nurse navigator(s) did not have the necessary knowledge for the role | 4, 4 | **78.8** | 15.2 | 6.0 |
| I do not really understand the nurse navigator role | 4, 4 | **71.2** | 12.1 | 16.4 |
| The nurse navigator role is safe | 4, 4 | 7.6 | 24.2 | **68.2** |
| I fear that a nurse navigator will make an incorrect judgement | 4, 4 | **66.7** | 28.8 | 4.5 |
| The nurse navigator was easy to contact | 4, 4 | 9.1 | 24.2 | **66.7** |
| The nurse navigator role did not increase the risk of incorrect treatment | 4, 4 | 13.6 | 28.8 | **57.6** |
| The nurse navigator role has helped to reduce delays in patient care | 4, 4 | 21.2 | 24.2 | **54.5** |
| The nurse navigators were not adequately prepared for their role | 4, 4 | **54.5** | 25.8 | 19.7 |
| The nurse navigator had a positive impact on care | 4, 4 | 22.7 | 24.2 | **53.0** |
| The nurse navigator role does not enhance patient compliance with treatment | 3, 3 | 25.8 | **53.0** | 21.2 |
| The nurse navigator uses an organised and systematic approach | 3.5, 4 | 18.2 | 31.8 | **50.0** |
| The nurse navigator did not have access to second opinions from medical colleagues when necessary | 3, 3 | 39.4 | **50.0** | 10.6 |
| The nurse navigator role did not help to meet the needs of the patients | 3, 4 | **48.5** | 25.8 | 25.7 |
| The nurse navigator role helped to increase patient satisfaction levels | 3, 3 | 13.6 | **47.0** | 39.4 |
| The nurse navigators are supported by ED doctors in their role | 3, 3 | 12.1 | **47.0** | 40.9 |
| The nurse navigator did not help to facilitate holistic care | 3, 4 | **47.0** | 22.7 | 30.3 |
| The nurse navigator cannot refer patients directly to ED specialists | 3, 3 | 34.8 | **47.0** | 18.3 |
| The nurse navigator role results in improved health service for patients | 3, 4 | 18.1 | 36.4 | **45.5** |
| The nurse navigator role helped to reduce the number of health professionals a patient must interact with | 3, 3 | **43.9** | 40.9 | 15.2 |
| The nurse navigator role is necessary | 3, 3 | 25.8 | 30.3 | **43.9** |
| Overall, the nurse navigator role was a success | 3, 4 | 21.2 | 34.8 | **43.9** |
| The nurse navigator role did not help to reduce duplication of service | 3, 3 | 28.8 | **42.4** | 28.8 |
| The nurse navigator role freed up ED doctors' time | 3, 3 | 31.8 | **42.4** | 25.8 |
| The nurse navigator role did not have a positive impact on inter-professional relationships | 3, 3 | **37.9** | **37.9** | 24.3 |

[a] Higher scores indicate a positive response.
[b] Highest percentage agreement shown in bold.

**Table 4**
Evaluation items: differences in scores between junior and senior RNs.

| Item | [a]Median, mode | | Significance *p* | Effect size *r* |
|---|---|---|---|---|
| | Junior RN (n = 23 | Senior RN (n = 11) | | |
| I do not really understand the nurse navigator role | 4, 4 | 5, 5 | .005 | .48 |
| The nurse navigator uses an organised and systematic approach | 4, 4 | 3, 2 | .006 | .47 |
| The nurse navigator role helped to increase patient satisfaction levels | 4, 3 | 2, 2 | .007 | .46 |
| The nurse navigator role does not enhance patient compliance with treatment | 3, 3 | 2, 2 | .010 | .44 |
| The nurse navigator role did not have a positive impact on inter-professional relationships | 3, 3 | 2, 1 | .014 | .42 |
| The nurse navigator role helped to reduce the number of health professionals a patient must interact with | 3, 3 | 2, 2 | .015 | .42 |
| The nurse navigators were not adequately prepared for their role | 4, 4 | 3, 4 | .023 | .39 |
| The nurse navigator was easy to contact | 4, 4 | 3, 4 | .044 | .35 |
| The nurse navigator role is safe | 4, 4 | 4, 4 | .042 | .35 |
| The nurse navigator had a positive impact on care | 4, 4 | 3, 2 | .025 | .35 |
| The nurse navigator did not help to facilitate holistic care | 4, 4 | 2, 2 | .042 | .34 |

[a] Higher scores indicate a more positive response.

indicated. The findings present a snapshot of how practice is approached by the disciplines represented as each would uniquely perceive their environment.[35] Nurses commonly requested a floating nurse in lieu of a navigator, or to see the navigator 'doing'. They did not always grasp the value of an overall departmental perspective. Nurses are not generally charged with repercussions of NEAT, although may perceive a greater burden from it.[36] A focus by some participants on their own tasks may reflect high levels of junior or agency staff. One wardsperson saw their part in the flow challenge, but was not subject to the same pressing, penalty-based time targets as clinical staff. While administration staff did not drive throughput, they had to work faster to keep up with patient movement processes. The contribution of non-clinical roles is acknowledged as freeing-up clinical staff and in this instance, facilitating the navigators' intent,[37] and was reflected in the positive survey evaluations of administration staff.

Some nurses' resentment at feeling they were being told what to do several times by different people, highlights a glitch in efficacious communication. This could be a misperception of a well-intentioned directive as an order, or in some instances, a case of being personality-driven on the part of the navigator, affirming the common respondent caution regarding careful selection of personnel for the role. Clear communication is vital in ED, a delicate balance engendering teamwork, and affecting team performance in spite of clinical skills.[37,38] It was a key ingredient in this study, participants depicting the navigators encompassing them at the bedside, connecting with in-hospital staff, and relaying on behalf of doctors.

In spite of some negative comment by grade 5 RNs, survey results show they scored higher for a positive evaluation of the navigator, in contrast to their senior counterparts, for whom a navigator's presence may have felt challenging, engendering a reaction to perceived change in their practice or their sense of control.[39,40] In contrast, senior medial officers evaluated the navigator role more highly.

Although most survey respondents felt they understood the navigator role, there were many items that were responded to as unsure, indicating uncertainty around the role. This was confirmed by the qualitative findings that indicate a need for clearer definition of the navigator role, function, reporting and communication channels. These dynamics were initiated in the study launch via handover and education sessions, plus focus groups at several junctures with various discipline configurations to foster clinician buy-in and feedback.[41] However, the restraints of clinical priorities meant that not everyone was able to attend these sessions, potentially influencing some participants' lack of clarity regarding the navigator role and characteristics.

Medical staff generally took an overall view, reflected in the positive survey result, especially those junior, who may still acquiring skills of time and workflow management. They appreciated that the navigator's stance of directing and facilitating took watching-the-time from these doctors, thus giving it back to them for clinical rather than time-keeping purposes. This relieved them in the strategic balancing of time-based targets with quality care and patient safety,[42] NEAT compliance amongst other measurable targets considered 'surrogate markers that have a poor correlation with quality of care'.[43, p. 218] Several doctors that had encountered ED navigators previously had distinct expectations and constructive feedback but, as with a portion of nurses, several did not meld with the navigators, either the concept of being guided rather than self-directed, or the manner in which guidance was delivered. As well, the survey found that less than half of respondents felt the role impacted positively on interprofessional relationships.

In a study such as this, it is easy to look at other disciplines and postulate how they could modify their practice to facilitate process. Gilardi et al.[44] described an authority gradient, particularly between medicine and nursing, wherein some doctors had difficulty in renegotiating discipline boundaries, others considering it their professional prerogative to determine practice roles and parameters. A multi-disciplinary milieu such as ED necessitates blending of boundaries in role redesign. However, amidst daily departmental pressure, the gradients of flow impact all, although at varying points. Hence the importance of a collaborative, interdisciplinary approach to addressing clinical problems.[45]

Concomitant with the imperative for optimum clinical care is that of satisfying administrators. Whether a NEAT target to be achieved, or best practice to be delivered, the prime motivator is not the carrot and stick of penalties, but appreciating the benefit to patients of well-timed throughput, and the value of moderating personal shift-plans in light of the bigger picture that depends upon coordinated team interaction.[46,47] Resultant professional satisfaction is derived from patients progressing through ED in a timely manner with due beneficence.[48]

Extended nursing roles exert a positive influence on ED care[20] however a new role with explicit goals and nomenclature is recommended.[21] There is a tendency to picture roles like the navigator embedded in the ideal world, the one patients anticipate when they present.[49] However, the reality of practice includes novice and agency staff, extended shifts and wait times, in an over-capacity department. Somewhere in between is the place for a well-oiled, communicating team coordinating within a whole of hospital approach[50] — a process in which navigators can play a key role.

## 6. Strengths and limitations

This study was undertaken in a single tertiary ED with a relatively small sample size, and although representational of such departments, findings are not necessarily generalisable to other centres and contrasting contexts. A strength of this study is its mixed methods approach that captured clinicians' experience of the navigator role but it is important to note that this study did not investigate the impact of the role on NEAT or patient flow *per se*; which is reported elsewhere.[27] A limitation is that two nurses performed the role, making it difficult to separate staff evaluation, although differences in enacting the role were addressed in staff recommendations. There is potential bias in evaluating a role using diaries from incumbents who may wish to remain in such a role, although this was not evidenced in their candid accounts. There was also the potential for focus group composition to impact on participants' responses, such as more junior staff's propensity to candidly discuss their perceptions of the role in the presence of more senior staff, such as nurse managers or senior doctors. This was somewhat alleviated by the skill of the facilitator to moderate those more vocal or senior in order to give invited opportunity to those more reticent or junior. However, reticence was more often observed to be driven by personality rather than rank.

## 7. Implications for practice and further research

The anticipated effect of the navigator role is a smoother patient journey through ED to admission or discharge in a timely, target-compliant manner, however this evaluation indicates further refinement of the role is merited, with clearer definitions and guidelines. Necessarily, such roles need to be tailored to particular ED contexts. Whether navigators should operate throughout the 24-h period or whether, as in this study, they are most effective when implemented during peak activity periods, is an additional consideration. Further studies of ED navigator roles are required to evaluate cost-effectiveness of providing the service whilst taking into account departmental flow versus quality of care. Research investigating patients' perspectives would add another dimension of evaluation, however may be difficult because patients in ED may not be aware of the navigator's activity.

## Authorship

PF and FK conceived and designed the study. PF, FK and MJ secured funding and developed the study protocol. PF and MJ supervised data collection. PF, MJ and FK analysed the data. MJ, PF and FK prepared and approved the manuscript. All authors have approved the final manuscript and agree to be accountable for every aspect of the work. All those entitled to be included as authors have been listed.

## Provenance

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