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Being a patient in a crowded emergency department: a qualitative service evaluation

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The authors declare that they have no competing interests

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Regulatory approvals

The study was registered with the hospital trust as a service evaluation (ref 12348). The NHS Health Research Authority confirmed that additional regulatory approvals were not required (ref 81/81).

Author contributions

JvO conceptualised the project. AC, HSM, MO, and JvO collected and analysed the data and wrote the first draft. RA, KK, NM, and DR gave academic supervision and reviewed the first draft. All authors revised the draft manuscripts.

Patient and public involvement

This was a service evaluation to enable learning from patients' experiences. There was no PPI consultation prior to the described interviews.

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Being a patient in a crowded emergency department: a qualitative service evaluation

Abstract

Background

Emergency department (ED) crowding causes increased mortality. Professionals working in crowded departments feel unable to provide high quality care and are predisposed to burnout. Awareness of impact on patients, however, is limited to metrics and surveys rather than understanding perspectives. This project investigated patients' experiences and identified mitigating interventions.

Methods

A qualitative service evaluation was undertaken in a large UK ED. Adults were recruited during periods of high occupancy or delayed transfers. Semi-structured interviews explored experience during these attendances. Participants shared potential mitigating interventions. Analysis was based on the interpretative phenomenological approach. Verbatim transcripts were read, checked for accuracy, re-read, and discussed during interviewer debriefing. Reflections about positionality informed the interpretative process.

Results

Seven patients and three accompanying partners participated. They were aged 24-87 with characteristics representing the catchment population. Participants' experiences were characterised by 'loss of autonomy', 'unmet expectations', and 'vulnerability'. Potential mitigating interventions centred around information provision and better identification of existing ED facilities for personal needs.

Conclusion

Participants attending a crowded ED experienced uncertainty, helplessness, and discomfort. Recommendations included process and environmental orientation.

Keywords

Emergency care, crowding, patient satisfaction, experience

Key messages

WHAT IS ALREADY KNOWN ON THIS TOPIC

- Crowding in emergency departments is associated with poorer outcomes for patients and poorer working conditions for professionals.

WHAT THIS STUDY ADDS

- This qualitative evaluation studied patients' experiences of receiving healthcare in a crowded emergency department and identified potential mitigating interventions for

improvement. Crowding contributed to uncertainty, helplessness, and discomfort for these participants, who offered process and environmental adjustments for amelioration.

HOW THIS STUDY MIGHT AFFECT RESEARCH, POLICY OR PRACTICE

- Evaluating crowding impacts from the patient perspective can identify interventions for experience improvement. Reinforcement of information and orientation may help to relieve negative healthcare experience when our ED is crowded.

Introduction

Crowding affects emergency departments (ED) worldwide and is a current pressing UK concern [1]. It is caused by increased attendances and delayed transfers [2]. Reduced throughput is associated with increased mortality [3]. Crowding impacts on patient safety and outcomes, including delayed time to treatment and increased patients departing unseen [4, 5].

Qualitative work has explored the impact of working in crowded EDs, citing moral stress, dissatisfaction with working conditions, and deviation from care protocols [6, 7, 8]. While there is a growing body of evidence for professionals' poor experiences working in crowded environments, awareness of the impact on patients is limited to analyses of service outcomes rather than more detailed understanding of perspectives [2]. Qualitative work with patients has tended to explore their reasons for attending departments (aiming to reduce or divert healthcare resource use) rather than appreciating their experience once there [9]. Experience, though, is a key measure of emergency care and contributes with any outcomes attained to subsequent satisfaction [10].

ED crowding is an issue with complex causes; there is no single solution for its prevention which departments can implement, and instead a whole-system response will be required [11]. This study aimed to improve understanding of ED crowding and its emotional, psychological, and experiential impacts from the patient perspective, and thereby identify potential local interventions for alleviation.

Methods

Study design

A qualitative service evaluation was undertaken. The methodology used semi-structured interviews with interpretative phenomenological analysis to elicit in detail and make sense of participants' perspectives. This method extends beyond narration of participants' experiences and insights to double hermeneutic interpretation of their perspectives [12, 13]. This uses a relatively small number of in-depth interviews and focuses on appreciating the essence of experience rather than necessarily deriving generalisable theory.

Setting and population

The study was conducted at a busy UK ED with catchment population of 1.4 million. During the study period (March to April 2023) there were approximately 900 daily attendances. The department has separate entrances and environments for adults and children. The adult area is divided into

physical zones with a 12-bed resuscitation room, two bedded adult majors with 32 and 16 cubicles, an adult ambulance assessment / initial triage area (10 beds indoors plus, at the time of this study, 10 beds in a temporary overflow structure), and separate seated areas totalling approximately 200 chairs for adult ambulatory majors, adult injuries, and adult triage.

Adult patients attending the ED during periods of crowding and not requiring immediate healthcare interventions were eligible. Prisoners were excluded. We sought to understand the experience of crowding rather than waiting, and so did not select based on minimum stay times or departmental disposition. Current heterogeneous measures of crowding are generally based on service metrics [2, 14]. We acknowledged that local physical design may allow for crowding to be perceived in one or more zones within an overall non-crowded department. Therefore, we pragmatically identified crowding by: >75% waiting room seats occupied; >75% bed spaces occupied; ambulance handover times exceeding 30 minutes; or ward transfer times exceeding 60 minutes. During the recruitment period, however, bed space occupancy routinely exceeded 100% and ward transfer times often exceeded 12 hours. Transfer times were used as a proxy for hospital capacity and waiting time was not considered an inclusion criterion. Potential participants were approached purposively, seeking to represent the department's typical demography in terms of sample age, ethnicity, frailty, healthcare acuity, and waiting time.

Participant recruitment

Our recruitment included evenings and weekends. Patient participants were recruited using opportunistic sampling across most ED areas. We did not recruit in resuscitation or the 32-bed majors area. Here, care is in doored cubicles away from waiting areas to reduce noise and distraction; we therefore felt people would have less awareness of crowding. We did include the other bedded majors area as well as ambulatory majors, triage, injuries, and the temporary outdoor overflow area. In keeping with the interpretative phenomenological approach there was no pre-determined recruitment target, and rather the goal was richness of data and description over sample size or saturation.

Potential participants were approached following identification with the zone's nurse co-ordinator so that care would not be disrupted. The aims were explained, and individuals were given time to reflect on their involvement and to ask questions. We only included people who had capacity to consent, as assessed by a clinician. People who were accompanied by another person were privately offered a joint interview. Verbal consent was obtained from participants and any accompanying person.

Data collection

Interviews in English were each conducted by two people: the last author (male middle grade emergency physician with PhD training in qualitative and psychometric methodologies – all interviews) and by the first authors (two female and one male senior medical students – two to three interviews each). Interviewers introduced themselves explaining their interest as healthcare workers in improving quality by understanding both positive and negative experiences.

Interviews took place in private areas of the ED, including examination rooms and assessment cubicles. These were undertaken at points of participants' healthcare journeys that were convenient to them and staff – typically while waiting for assessments, investigations, or transfers. Conversations were semi-structured using a topic guide based on recent emergency care experience literature, developed iteratively through discussion among the study team and informally with ED patients (Supplementary material 1) [13, 15]. This was loosely organised around establishing rapport and

context, exploring participants’ experiences of their ED attendance, and encouraging enablement through elicitation of potential interventions. ‘Crowding’ frequently appeared in media coverage at the time of recruitment and the word was therefore avoided in the topic guide and interviewer questions, to reduce influence on participants. Interviews were audio-recorded, and observer notes were made.

Following each interview, the study team debriefed on reflexivity and elicited topics, discussing emerging themes and planning future interviews. Data quality was judged by the depth of discussion and expression of negative healthcare experiences. We expected that all participants would have some negative experiences but would not express these in interviews affected by power dynamics or lack of trust.

Analysis

Interpretative phenomenological analysis was undertaken, proceeding through data immersion and note-making, formulation of emergent themes, and connecting the synthesis. Analysis aimed firstly to understand and describe the meaningful context of ED crowding through interpretation of the participants’ experiences, and secondly to formulate recommendations for mitigating interventions both from participants’ experiences and their own suggestions.

Recordings were transcribed verbatim and anonymised by an approved and contracted professional service. The last author listened to each recording twice and checked transcripts for accuracy. The first and last authors then read each transcript at least twice and appended observer notes. To organise the dataset and facilitate review, transcripts and observer notes were annotated in Microsoft Word with open codes for instances discussing experience and potential interventions. The codes and corresponding quotes were tabulated using a macro script. The interviewers then met together twice to discuss interviews and reflections in depth. Common themes between experiences and interpretations were then explored through review of quoted instances for similarity and connection.

The study was registered with the hospital trust as a service evaluation (ref 12348). The NHS Health Research Authority confirmed that additional regulatory approvals were not required (ref 81/81).

Results

Participant characteristics

Seven participants were recruited in the department’s adult triage area (2), adult ambulatory majors (3), and adult ambulance assessment temporary overflow structure (2). Four patient participants were accompanied during their interview. This was their partner in all cases. The sample broadly represented the characteristics of people using this ED (Table 1).

Table 1: Participant characteristics

ID	Age	Gender	Ethnicity	Accompanied	ED area	Wait
A	60-69	Female	White	Partner	Triage waiting room	2.5 hours
B	20-29	Female	White	No	Triage waiting room	3 hours
C	20-29	Female	Indian	Partner	Ambulatory majors	0.5 hours
D	50-59	Female	White	No	Ambulatory majors	1 hour
E	40-49	Female	Black	No	Ambulatory majors	13 hours

F	80-89	Male	White	Partner	Ambulance overflow	2 hours
G	40-49	Male	British Asian	Partner	Ambulance overflow	1.5 hours

Wait: emergency department length of stay at the time of recruitment.

Ambulance overflow: a 10-bed temporary structure extending from the adult ambulance assessment zone.

Experience of ED crowding

Accounts of negative healthcare experiences predominated. Interpretations of perspectives were summarised by themes of ‘loss of autonomy’, ‘unmet expectations’, and ‘vulnerability’.

Loss of autonomy

Participants felt that they resigned themselves to the ED process and that there were no available alternatives to acquiescing and tolerating their situation. Three people who were queuing to see a clinician felt they had no choice other than to wait:

I feel upset but there's nothing else I can do. I need to be seen.

Person C

We're hoping it's going to be fixed, but like I said until we get the results through, we don't know where we'll be going ... we've just got to hang on and wait haven't we.

Person F

You can't regulate what's going on, yourself as a patient. It feels very restrictive than what you would in a ward.

Person G

People waiting in the adult ambulatory and ambulance overflow areas could see department thoroughfares. Participants here felt unable to approach healthcare professionals for assistance, considering them to be too busy:

I don't want to take the trouble to ask them [for medication] ... I think that would just take longer so I'd rather just wait here.

Person C

They are just too busy. You see them all the time on the go and there's too much to fit in. I sometimes think don't even go and ask them because they're too busy to ask anything.

Person G

Uncertainty around processes and timing made participants feel unable to understand the setting or update important contacts. This affected not only people queuing for clinicians, but also those who had been seen and were receiving treatments. People B and C wanted to be able to plan how they would travel and needed to anticipate their discharge time, while Person E was concerned about her baby at home:

I don't drive so I have to rely on taxis or people to come and pick me up so it would be nice to be able to give them a bit of an indication about when they could come.

Person B

I don't know how long it's going to take me today. I asked one of the nurses. He's like he's not sure either so I have no expectation of the time.

Person C

The first nurse said about eight hours, nine hours. So you are catching on that you're going to be here for a considerable amount of time, but it's a very long time. And I have a baby that I'm breastfeeding at home.

Person E

Person G's long-term condition had caused them to require care in several hospitals. While they were familiar with healthcare processes, uncertainty around temporary reconfigurations disrupted understanding of their current situation, causing dissatisfaction:

Nobody explains to you why you're in the tent. If you're told that we're sorry this is the situation and that's why we're putting you here, it's the assessment thing.

Person G

Unmet expectations

The UK was no longer in pandemic restrictions at the time of these interviews. Still, participants felt that the crowded environment posed danger. Person E, who had spent the full night waiting, was conscious of risk:

Obviously because of Covid, you kind of want to spread out a bit ... It's such a small space and there's so many people coming, I don't know what more they could do.

Person E

People C and E felt uncomfortable in the waiting room due to lack of facilities for nutrition and personal hygiene:

I haven't seen a water supply anywhere ... I think they provide food but I'm not sure.

Person C

It's very grubby. There was tissue on the floor, there was urine on the floor.

Person E

Despite the crowd, participants attending alone could still feel lonely. Person B had become unwell at university, far from family. They sought distraction by contacting relatives:

I've been texting family to give them updates ... just so I don't feel so alone because I'm here by myself.

Person B

Other people were also distracting themselves by conversing or making calls. This inevitably led to feeling disturbed or even frightened by the level of noise:

I found it quite difficult, people having telephone calls when they're obviously very frustrated. I think it can be quite hard on other people when, you know, there's someone beside them raising their voice.

Person B

Due to their health problems, People F and G could not wait on chairs and required trolleys. They were being accommodated in a temporary structure. This caused surprise and disappointment:

We were hoping it was in the main hospital with the sliding doors where it's quieter and they can shut it off a bit.

Person F

When you're coming into hospital and you've been put in a tent, you're thinking what's going on. You're already not well and going through anxiety and stress, and then you're put somewhere which is unfamiliar.

Person G

These expectations being unmet led to participants being reluctant to attend in future:

I wouldn't, definitely wouldn't. I already know that A&E will take so many hours but because I really had to come, I did come. But I probably wouldn't next time.

Person C

I don't want to come back to A&E. I'd rather wait for the GP, unless I feel like it's life and death.

Person E

We were at the point where we looked at treatment even if we have to pay ... because it saves the time and effort of everybody coming to A&E.

Person G

Vulnerability

Participants worried for their safety. Person A explained that security personnel were not visible in the waiting area, while for Person F this was caused by feelings of powerlessness due to uncertain processes and timing. Person F feared their condition deteriorating, unnoticed by staff:

I didn't feel safe at all. There were too many people, there were alcoholics, drug addicts and people just literally shouting.

Person A

How do you feel about calling for help?

Respondent: They've not been rude, but they don't seem to have the time.

Person F

Participants in the waiting area worried about other patients, as well as family members who were alone at home. Here, people were exposed to higher numbers of other patients and staff members.

There was a girl there who didn't look well at all, but she went up to the counter a few times and they were putting things on her finger, checking pressure and everything.

Person A

If someone's on their own, it will be so hard for them.

Person C

I'm breastfeeding. My husband does not cope very well when it comes to – he can't offer – you know, so there's a lot of stress happening. So I do want to go home as soon as possible.

Person E

They were also concerned for the wellbeing of staff and reflected on working in a crowded department:

Hopefully there's support for the staff as well so that everybody feels that they can make the best of a bad situation. I think they must be under a lot of pressure.

Person B

I'm sure it's stressful, a lot, because there's so many people that they have to tend to and help.

Person E

Participants in the waiting area felt that they were invisible or even forgotten. This led to missed treatments, as Person E had been prescribed analgesia that was not given:

People who came in after us were being seen and that makes me feel that I'm not a priority when I know jolly well I am.

Person A

They are busy and you do get forgotten ... So when the four hour mark came when I was in pain I did go up to them and ask. I just wish it was something that they were doing it more often rather than just leaving you.

Person E

Person G likened their experience in ambulance overflow to being on a conveyer belt, perhaps referencing depersonalisation while proceeding through processes:

Basically it's a conveyer belt, that's what you're running right now, the NHS is running a conveyer belt, a sandwich factory.

Person G

Potential alleviating interventions

Participants suggested interventions to mitigate for their situation in the crowded setting. Summarised by themes (**Error! Reference source not found.**), these focussed on provision of accessible information and orientation to available facilities for personal needs.

Table 2: Potential interventions to mitigate for unpleasant crowding experiences

Intervention	Loss of autonomy	Unmet expectations	Vulnerability
Screens detailing ED processes	•	•	•
Screens identifying staff professions and roles	•	•	•
Signs directing to toilets, water, and food	•	•	
Process updates from staff during interactions	•		
Distractions (e.g. television)		•	

Loss of autonomy

Lessening uncertainty was a priority. Participants suggested improved information provision, both from staff and with signage:

They could say a rough estimate of how long you'll be waiting. Instead of just saying 'the doctor will come', maybe they could say 'we can't guarantee but it could be up to an hour wait'.

Person B

It was confusing where to sit. Some chairs had stickers on saying different things but it wasn't obvious where you should sit. I think some better instructions so you know you're in the right place to hear your name.

Person B

There is always going to be a change, but it would be nice to know there's seven people ahead of you.

Person E

These could be enacted using a rolling presentation. This would display realistic waiting times, a medical priority system overview, and an aid for recognising professional roles from their uniforms. The department was already fitted with suitable screens. However, these had been switched off following complaints that information was imprecise.

Unmet expectations

Participants felt that access to food and drink would improve comfort, and that distractions such as television made the setting more tolerable:

A nice old cup of tea would help.

Person F

I don't know if you're able to get a sandwich if you're really hungry.

Person D

Last time I came there wasn't a TV on so that's a bit of distraction. I'd say that's an improvement.

Person D

Signage could aid accessing the existing toilets and water station. The procedure to access refreshments should also be displayed. All current signage was in English, often with small text, and required improvement for maximal accessibility.

Vulnerability

Suggestions to improve efficiency and clarity were often borne of concerns for other patients:

People with broken legs, they're struggling to get up there. It should all be done in one go.

Person A

If I couldn't see the sign, I'm sure it will be confusing for older people.

Person C

Feelings of frustration and abandonment might be overcome with information overviewing processes, including interventions such as triage which might already have taken place. The presence of security staff should be displayed.

Discussion

Summary of findings

Crowding negatively impacted on patient's emergency care experiences, encapsulated in three overarching themes of 'loss of autonomy', 'unmet expectations', and 'vulnerability'. Participants described their uncertainty and discomfort. Negative events were often compounded by both the lonely invisibility and the constant disturbance of being in a crowd. We identified local recommendations from participants' suggestions. These centred around information provision and clear signage for care and waiting areas within the department.

Relationships with existing literature

Our patient-level enquiry echoed literature reporting deleterious consequences of crowding on patient satisfaction, where boarding was associated with poorer survey responses [16]. These considered professional communication and responsiveness, and responses may have reflected the uncertainty over processes and reluctance to interrupt professionals which we observed. Crowding has been associated with missed or delayed treatments [17, 18]. Similarly, participants in this current work were aware of such risks, even if they were unharmed. Such delays perhaps occurred due to effects of crowding on efficiency; while this has been studied at the service-level, here we identified the frustration and depersonalisation experienced by individuals [19].

Identifying mitigating interventions is a research priority [20]. The imminent impact of crowding on patient care is widely acknowledged and represented in NHS-wide strategy [21]. Those system-level interventions aim to reduce occupancy to avoid crowding-related harms. Here, we identified interventions which may help to alleviate poor experiences once crowding has occurred, with particular focus on information. Information improves patient satisfaction [22]. While these focussed on summary information at discharge, our findings highlight a need for updates and direction throughout attendances during times of crowding. This need not create additional professional workload as participants suggested maximising existing departmental signage space and passing updates within existing care interactions.

While these recommendations appear simple, further evaluation of effects will be required. Simple, generic interventions may present new issues with understanding: as examples, people with atypical presentations requiring complex care flows (as is often the case for those living with frailty) may be even more confused by signage designed for a standardised pathway, and diagrams detailing professionals' uniforms cannot account for agency workers. It is notable that information screens were already installed but had been switched off due to complaints about the accuracy of previous information regarding waiting times. Complaints and compliments capture only the extremes of healthcare experiences, and so implementation of quality improvement interventions might better be appraised using validated measures on a routine or targeted basis. The identified themes are represented in existing emergency care patient-reported measures [15, 23, 24].

Limitations

These findings may be relevant to other settings, however the methodology sought internal validity for local interventions rather than necessarily transferability [25]. We aimed to describe and interpret experiences, and richer understanding of underlying social constructs and theories was beyond scope. The setting had certain qualities which may limit external validity: the floorplan prevented use of corridors for boarding and cubicles had soundproofing. Here, crowding disproportionately affected people early in attendances or with lower acuity presentations, as they queued in waiting rooms or overflow areas. In alternative operating models, people move rapidly into assessment areas but subsequently experience crowding in corridors. The proposed mitigating interventions require evaluation for feasibility and efficacy.

Opportunistic sampling recruited participants around researchers' availability and crowded periods. This risked introducing selection bias. People who were more comfortable sharing opinions or less unwell may have been more likely to participate. We recruited only people who spoke conversational English with capacity to consent. While we identified interventions which may help ED users locally, we cannot claim generalisability.

We recruited, interviewed, and analysed data from positions as healthcare professionals. This may have limited the extent and detail of discussions. Our experiences and perspectives inevitably influenced interpretations of data and the themes generated. However, participants' expressions of negative perspectives and suggestions for mitigating improvements adds confidence for the quality and openness of interviews. Our structured debriefing and collaborative analysis strengthen findings.

Conclusion

Crowding negatively impacted upon patient experience of emergency care, summarised by themes of 'loss of autonomy', 'unmet expectations', and 'vulnerability'. Mitigating recommendations centred on information provision to identify existing facilities for basic needs within the department and alleviate uncertainty around personnel and processes.

References

1. Higginson I, Boyle A. What should we do about crowding in emergency departments? *British Journal of Hospital Medicine*. 2018;79(9):500-3.
2. Pearce S, Marchand T, Shannon T, Ganshorn H, Lang E. Emergency department crowding: an overview of reviews describing measures causes, and harms. *Intern Emerg Med*. 2023;18(4):1137-58.
3. Jones S, Moulton C, Swift S, Molyneux P, Black S, Mason N, et al. Association between delays to patient admission from the emergency department and all-cause 30-day mortality. *Emergency Medicine Journal*. 2022;39(3):168.
4. Carter EJ, Pouch SM, Larson EL. The relationship between emergency department crowding and patient outcomes: a systematic review. *J Nurs Scholarsh*. 2014;46(2):106-15.
5. Af Ugglas B, Lindmarker P, Ekelund U, Djärv T, Holzmann MJ. Emergency department crowding and mortality in 14 Swedish emergency departments, a cohort study leveraging the Swedish Emergency Registry (SVAR). *PloS one*. 2021;16(3):e0247881.
6. Eriksson J, Gellerstedt L, Hillerås P, Craftman Åsa G. Registered nurses' perceptions of safe care in overcrowded emergency departments. *Journal of Clinical Nursing*. 2018;27(5-6):e1061-e7.
7. Chen L-C, Lin C-C, Han C-Y, Hsieh C-L, Wu C-J, Liang H-F. An Interpretative Study on Nurses' Perspectives of Working in an Overcrowded Emergency Department in Taiwan. *Asian Nursing Research*. 2018;12(1):62-8.
8. Lovell L-MP, Atherley AEN, Watson HR, King RD. An exploration of burnout and resilience among emergency physicians at three teaching hospitals in the English-speaking Caribbean: A cross-sectional survey. *The Lancet Regional Health – Americas*. 2022;15.
9. Butun A, Lynn F, McGaughey J, McLaughlin K, Linden M. Exploring attendance at emergency departments for children with non-urgent conditions in Turkey: a qualitative study of parents and healthcare staff perspectives. *Emergency and Critical Care Medicine*. 2022;2(2).
10. Graham B, Endacott R, Smith JE, Latour JM. 'They do not care how much you know until they know how much you care': a qualitative meta-synthesis of patient experience in the emergency department. *Emerg Med J*. 2019;36(6):355-63.
11. Morley C, Unwin M, Peterson GM, Stankovich J, Kinsman L. Emergency department crowding: A systematic review of causes, consequences and solutions. *PloS one*. 2018;13(8):e0203316-e.
12. Pietkiewicz I, Smith JA. Praktyczny przewodnik interpretacyjnej analizy fenomenologicznej w badaniach jakościowych w psychologii. *Czasopismo Psychologiczne*. 2012;18(2):361-9.
13. Bull C, Latimer S, Crilly J, Spain D, Gillespie BM. 'I knew I'd be taken care of': Exploring patient experiences in the Emergency Department. *J Adv Nurs*. 2022;78(10):3330-44.
14. Adrian B, James C, Yasmin S, Vijayasankar D, Jacqueline O, Keeffe, et al. Initial validation of the International Crowding Measure in Emergency Departments (ICMED) to measure emergency department crowding. *Emergency Medicine Journal*. 2015;32(2):105.
15. Graham B, Smith JE, Nelmes P, Squire R, Latour JM. Initial Development of a Patient Reported Experience Measure for Older Adults Attending the Emergency Department: Part I- Interviews with Service Users. *Healthcare (Basel)*. 2023;11(5).
16. Pines JM, Iyer S, Disbot M, Hollander JE, Shofer FS, Datner EM. The effect of emergency department crowding on patient satisfaction for admitted patients. *Acad Emerg Med*. 2008;15(9):825-31.
17. do Nascimento Rocha HM, da Costa Farre AGM, de Santana Filho VJ. Adverse Events in Emergency Department Boarding: A Systematic Review. *J Nurs Scholarsh*. 2021;53(4):458-67.
18. McDermid F, Judy M, Peters K. Factors contributing to high turnover rates of emergency nurses: A review of the literature. *Aust Crit Care*. 2020;33(4):390-6.
19. Jones PG, Mountain D, Forero R. Review article: Emergency department crowding measures associations with quality of care: A systematic review. *Emergency Medicine Australasia*. 2021;33(4):592-600.
20. Cottey L, Shanahan TAG, Gronlund T, Whiting C, Sokunbi M, Carley SD, et al. Refreshing the emergency medicine research priorities. *Emerg Med J*. 2023;40(9):666-70.

21. England N. NHS sets out plans for winter with new measures to help speed up discharge for patients and improve care 2023 [Available from: <https://www.england.nhs.uk/2023/07/nhs-sets-out-plans-for-winter-with-new-measures-to-help-speed-up-discharge-for-patients-and-improve-care/>].
22. Sonis JD, Aaronson EL, Lee RY, Philpotts LL, White BA. Emergency Department Patient Experience: A Systematic Review of the Literature. *Journal of Patient Experience*. 2017;5(2):101-6.
23. Vaillancourt S, Cullen JD, Dainty KN, Inrig T, Laupacis A, Linton D, et al. PROM-ED: Development and Testing of a Patient-Reported Outcome Measure for Emergency Department Patients Who Are Discharged Home. *Annals of emergency medicine*. 2020;76(2):219-29.
24. van Oppen JD, Coats TJ, Conroy SP, Lalseta J, Richardson V, Riley P, et al. Co-creation of a Patient-Reported Outcome Measure for Older People Living with Frailty Receiving Acute Care (PROM-OPAC). *Journal of Patient Experience*. 2023;10:23743735231158941.
25. Oxley L. An examination of Interpretative Phenomenological Analysis (IPA). *Educational and Child Psychology*. 2016;33(3).