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Patients' experience of trauma care in the emergency department of a major trauma centre in the UK

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1. Introduction

Trauma is the fourth leading cause of death in western countries and the leading cause of death in people under 40 years old [19]. There has been focus on developing trauma care in the last few years with the National Health Service (NHS) Outcomes Framework [7] Domain 3 being focused on survival for major trauma. Major trauma describes serious and often multiple injuries where there is a strong possibility of death or disability [18].

Trauma affects people from all age groups, geographic areas and socioeconomic classes. Trauma patients require specialist care from a multidisciplinary group of professionals. The initial assessment of major trauma patients' is challenging with minutes making the difference between life and death. Trauma can impact physically, emotionally and financially on the patient as well as their family and friends, both by the immediacy of the traumatic event and the long-term effects.

The trauma team consists of clinicians who carry out pre-assigned roles simultaneously so that interventions occur rapidly [5]. Good trauma care involves getting the patient to the right place at the right time for the right care [20], and major trauma centres (MTC) are set up to provide this specialised care. This involves rapidly identifying injuries, completing investigations and accessing specialist care as soon as possible after arriving at hospital.

Despite on-going improvements in trauma care and trauma systems, there is little literature looking at the patients' experience of trauma care in the emergency department (ED). In a review of the literature, seven studies were identified which examined the trauma care from the patient perspective, one of which was UK based. When O'Brien and Fothergill-Bourbonnais [21] interviewed seven trauma patients about their perspectives on trauma resuscitation in the Emergency Department (ED), they found patient's initial perceptions of vulnerability subsided as a sense of feeling safe became prominent and that caring behaviours, such as touch and tone of voice contributed to a positive experience. The combination of efficiency and caring by the trauma team helped to create an environment where patients' felt safe. An earlier study by Jay [9] explored and described issues in relation to nursing care that are important to trauma patients in the ED in England. In their findings based on seven interviews with trauma patients, they concluded that touch, company and information were important in coping and regaining control, as well as the need to trust the healthcare professionals.

Patients in an MTC are likely to be severely injured and Franzen et al. [8] found that severely injured patients tended to rate the quality of care more highly. Franzen et al. [8] and Wiman et al. [24] found that the less severely injured patients felt that communication was lacking affecting their perception of quality of care. Wiman et al. [24] focused on the trauma patients' conceptions of encounters with the trauma team. Their findings focused on communication between the patient and the healthcare professionals and found that participants were more confident, satisfied and gained comfort from professionals who treated them with both good physical care as well as providing psycho-social care.

Increasing knowledge about the patient experience of care in the ED is important to understand their situation and their needs following a traumatic event.

2. Methods

A qualitative research design was used and data collected by semi-structured interviews. The interviews were transcribed verbatim and analysed thematically.

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The study aim was to describe the patient perspective of trauma care in the ED. The study objectives were to: describe the ED environment from the perspective of the trauma patient; explore the trauma patient's experience of engagement with healthcare professionals in the ED; illuminate the trauma patient's emotional trajectory and their reflections on care in the ED.

2.1. Study context and participants

The participants for this study were recruited using a pragmatic convenience sample from adult patients admitted to the trauma ward of an MTC in London, having suffered a traumatic injury. The use of convenience sampling for the patient group allowed for recruitment of a diverse group of participants as described in Table 1.

The key ethical issues addressed in relation to the conduct of this study were related to ensuring informed consent and confidentiality as well as reducing the risk of coercion and any potential distress that might result from discussing a sensitive topic. A member of the clinical care team identified potential participants from trauma admissions. They used the inclusion and exclusion criteria (Table 2) when screening patients, and if the patient fitted the criteria, they invited the patient to participate in the study. During the data collection period (April–June 2015), 263 patients were screened and 37 patients were identified as potential participants from the trauma unit. A patient information sheet was given to them and if they agreed, their details were passed to the researcher. Those that agreed to see the researcher were approached; after the patient had a minimum of 24 hours to consider the study. The researcher was a fulltime student during the study and was not involved in providing trauma care in the ED.13 patients in total consented to participate in the study. Participating patients were assigned pseudonyms. Coercion was minimal as a member of the clinical care team initially approached the patients, allowing patients to fully consider if they wanted to participate prior to being approached by the researcher. All patients identified were approached to minimise any bias in recruiting patients. The impact of discussing a sensitive topic was considered in the formulation of the topic guide and in the ethics committee meeting. Participants were reassured they could stop at anytime and could be signposted to the appropriate people.

Trauma is classified using an injury severity score (ISS), an anatomical scoring system that provides an overall score for patients with multiple injuries, ranging from 0–75 with a score of 16 or greater signifying major trauma [18]. The ISS for the participants ranged from 4 to 21 (mean = 12.46, SD = 5.91).

Table 2
Inclusion & exclusion criteria.

Inclusion	Exclusion
• Adult patient age ≥18 who have sustained a traumatic injury • Glasgow coma scale 13 and above at presentation to hospital • English speaking – able to participate in an interview in English • Presentation activated trauma call • Required admission to hospital	• Patients under the age of 18 • Glasgow coma scale below 13 • Non English speaking/not able to participate in a interview • Trauma team not activated • Patient discharged from the ED • Intubated after arrival • Admitted straight to intensive care unit • Individuals who do not have the capacity to participant or consent e.g. severe brain injury • Prisoners/young offenders in the custody of HM Prison service

2.2. Interviews and data collection

Participants were asked to narrate their experience from the initial injury up until transfer from the ED to the ward. Open questions were used to encourage patients to describe their engagement with the healthcare professionals; the environment in the ED; as well as their feelings and emotions, using questions like 'Can you describe the environment you were in?' and 'Tell me about any feelings or emotions you experiences." Follow up questions were used to clarify thoughts, feeling and experiences if this information did not appear in the narrated story [17]. The interviews were semi-structured to ensure that key questions were answered in relation to the research aim whilst allowing participants to elaborate on issues they felt important. Interviews were performed between 2 and 23 days after the injury event. Interviews were conducted as soon as the patient felt they were able to participate. They were conducted on the ward while the patients was an inpatient. Interviews lasted between 9 and 42 mins and were transcribed verbatim.

2.3. Data analysis

The interviews were analysed using thematic analysis [2]. Thematic analysis involves discovering, interpreting and reporting patterns and clusters of meaning within the data [22]. Analysis involves constantly moving backwards and forward between the entire data set, to code the data, categorise the codes, analytical reflected and construction themes [2]. After several readings codes were assigned that described the content while still keeping the core content. The codes were grouped into categories and sub categories. During the whole process discussions between two of the

Table 1
Participant characteristics.

ID	Age	Gender	Mechanism of injury	Injury severity score	Transfer or direct to MTC	Days between ED and interview	Time in ED
Anne 01	66	F	Fall down stairs	20	Transfer	7	6 h07
Ben 02	48	M	Work-related injury	4	Direct	2	5 h24
Chris 03	23	M	Gunshot	8	Transfer	6	11 h52
Dipak 04	56	M	Road traffic collision	20	Direct	5	3 h26
Elliot 05	50	M	Fall from ladder	20	Direct	6	8 h36
Frank 06	31	M	Fall from ladder	9	Direct	23	9 h49
Gary 07	36	M	Road traffic collision	10	Direct	6	8 h04
Henry 08	38	M	Road traffic collision	9	Direct	4	6 h02
Irene 09	79	F	Fall from standing	9	Direct	7	5 h32
Janet 10	60	F	Fall from ladder	13	Transfer	5	9 h39
Karen 11	54	F	Fall from ladder	21	Transfer	6	9 h37
Irene 12	74	F	Fall from ladder	6	Transfer	2	7 h05
Michael 13	35	F	Road traffic collision	13	Direct	6	10 h59

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