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Interviews following physical trauma: A thematic analysis

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ABSTRACT

Introduction: Mental health problems are common in trauma survivors. In particular, depression, anxiety, acute stress disorder and post-traumatic stress disorder. Yet little is known about how these can be brought to the early attention of medical professionals through patients' accounts of trauma within days of being admitted to emergency care. This study aims to understand how physical trauma patients with early signs of psychological distress, stemming from the trauma, might be supported through their communications with healthcare professionals.

Methods: 42 semi-structured interviews with trauma victims attending the Royal London Hospital Trauma Clinic, taken as part of a larger project, were analysed using a qualitative thematic analysis method with a critical realist approach.

Results: Four key themes were highlighted: Pain and Death, Positivity, Powerlessness, and Remembering and Blame, each with relating subthemes such as Facing Death, Heroism, Waiting Time and Self-blame.

Discussion: The themes present within the data suggest that there are cues shared by trauma survivors that medical professionals should attend to with regard to the future mental health of their patients. Results may further equip nurses and clinical staff to spot early signs immediately and shortly after trauma.

1. Introduction

1.1. Background

Trauma is a leading cause of death and injury [1]. In addition to the immediate injury, survivors of physical trauma experience significant changes in health-related quality of life [2,3] and psychological distress [4]. There is considerable quantitative literature on biopsychosocial outcomes of serious injury, however whilst there is some qualitative research examining how trauma patients communicate their experiences [5,6], this is scant. Moreover, there is very little investigating accounts soon after injury, more specifically within 30 days. This research addresses the gap in the literature.

Psychological distress following physical trauma is common, and depression, anxiety, low esteem, and feelings of hopelessness are well reported [7,8], as are symptoms of Acute Stress Disorder (ASD) and Post-traumatic Stress Disorder (PTSD) [9]. Although without formal routine assessments in place, many patients do not receive a diagnosis [10].

The prevalence of PTSD following physical injury ranges from 2 to 42% [11] and has been associated with significant impacts on quality of life, society financial tolls, delayed treatment and misdiagnoses [12,13]. A diagnosis of PTSD can only be made if certain criteria are fulfilled, one of which is if symptoms persist for one month following the traumatic event, meaning a diagnosis cannot be issued in the early days following trauma [14]. However, a diagnosis of ASD can serve as a predictor for subsequent PTSD and affects 23–45% of physical trauma survivors [15].

Depression occurs in 28–42% of patients with physical injuries [16], and anxiety in 16–40% [17]. There is a distinct reduction in quality of life associated with anxiety following trauma [18], which have been found to persist for up to three years following onset of symptoms [14,15].

Whilst there is considerable research addressing epidemiology, process and outcome, and treatment for psychological distress following physical trauma [19], most of this is quantitative and little is known about the qualitative lived thoughts, feelings and experiences of trauma victims. The absence of qualitative data exploring physical trauma is surprising. Qualitative methods offer a deeper and more holistic understanding of the patient experience, offering contextual insights into unmet social needs that are often overlooked in quantitative methods [20].

Among the limited number of qualitative studies investigating patient experiences of healthcare services, it has been reported that

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physical trauma patients felt their care was depersonalised [21], and mental health needs were not followed up [22]. However, although there is some qualitative research investigating patient and caregiver experiences following injury [23,24], there is scant research specifically focussing on the experience of the actual injury. Moreover, there have been calls for qualitative approaches to help address complex individual and contextual factors that affect recovery after trauma [18]. In particular, we are not aware of any research investigating the way adult survivors of traumatic injury presenting with unrecognised psychological distress communicate their experiences within one month of injury.

2. The study

2.1. Aims

The aims of this study were to understand how survivors of major physical trauma, showing signs of developing a mental health disorder, reflect on their trauma experience and whether this could be used to help identify addressable unmet patient needs within health services.

2.2. Design

The research is an exploratory secondary analysis of data collected as part of a larger quantitative study [25], aiming to measure the prevalence of psychological distress and adjustment problems of patients with traumatic injury. It was decided that the data used in this research could stand alone, and was of interest to the lead author, although the nature of the research is discussed in the limitations. During analysis participant responses were viewed with a critical realist approach. Data had the potential to for population construct, rather than being insignificant or idiosyncratic [26].

2.3. Sample/Participants

All participants were recruited from the Royal London Hospital trauma clinics. Participants were screened for, but not formally diagnosed with, depression, anxiety, and ASD, using the measures described below. They were excluded if they were under the age of 18, had current symptoms of active psychosis, were hospitalized as a result of self-harm, could not speak English or had cognitive impairments as judged by clinic staff. Of a full sample of 225 participants, 45 with significant symptoms of psychological distress were selected for qualitative analysis. Three participants were removed due to insufficient data, providing a total of 42 accounts for analysis. Participants were aged between 18 and 62 and included 33 males and nine females. Twenty two scored highly for symptoms of depression and anxiety only, 8 for symptoms of ASD and 12 for all three.

2.4. Data collection

The data used in the analysis were interview accounts collected in 2014 during fieldwork for the larger study. These consisted of supplementary descriptive qualitative data. All accounts were collected face-to-face in a private environment to maximise patient confidentiality and comfort.

2.4.1. Quantitative measures

Questionnaires included the Hospital Anxiety and Depression Questionnaire (HADS;25) the Acute Stress Disorder Scale (ASDS;26), and demographic questions. Scores were coded as clinically significant or not based on published cut off scores.

2.4.2. Interview format

All participants were interviewed by ER for approximately ten minutes using a short sequence of semi-structured questions, see Table 1. Further prompts were given if answers were inconclusive. Answers were recorded in note form by the researcher with participants' terminology and full verbatim quotations clearly marked. These are displayed in the findings in quotation and italicised. The duration and notation of interviews could arguably be a limitation, however this has been addressed within the paper.

Table 1
Set questions asked during semi-structured interviews.

Question
Do you remember everything clearly?
What is the first/last clear memory?
When and where did the event happen?
Some people, when they have had an accident/incident like this, feel a sense of serious threat to their life. Did you have any feelings like that?
How long did the attack last/take?
Has anything like this happened to you before?
How was the pain at the time?
Who are you going home to/who is at home with you?

2.5. Ethical considerations

Ethical approval for the study was awarded by the NHS Research and Development Offices and the Research Ethics Committee (12/LO/0351). Participants were informed of the process and intentions of the research, rights as a participant, gave informed consent, and administered with personal codes for anonymity.

2.6. Data analysis

Following a thematic analysis approach [29], the data were read and re-read by the authors HS & ER on a case-by-case level, generating initial coding. A full list of codes can be found in Table 2. Potential themes were formulated accounting for appropriateness, inter-code relationships, overlap and through diagrammatic representation headed by those appearing most. The final themes selected satisfied criteria; they appeared in approximately one third of participants or more and were of interest to the researcher. Participants were given identification codes consisting of their sequence number [1–42], gender

Table 2
Initial codes constructed from analysis and prevalence between participants.

Initial Code	Number of Participants
Uncertainty of Location	1
Uncertainty of Incident	10
Concerns about Appearance	5
Intoxication	16
Exploitation	4
Trust	4
Remembering	15
Protective Factors	28
Facing Death	17
Planning for the Future	12
Description of Perpetrator	10
Helplessness	17
Future Concerns of Safety	9
Heroism	14
Why Me?	6
Somatic Accounts	20
Repeated Memories	1
Making Light of What Happened	6
Self-Blame	10
Punishment	5
Waiting Time	12
Fear of Redundancy/ Financial Worries	5

Note. All initial codes are listed above in the order of which they were developed from the data.

(M,F), age, and type of trauma, i.e. (*1*-M-28 yr-Accident).

2.7. Validity and reliability/rigour

Accounts were supplemented with case notes and information discussed in multi-disciplinary team meetings; credibility and authenticity were regarded throughout analysis [30]. Integrity of the analytic process was a constant consideration, and regular meetings were held among the researchers to discuss clarity within data. To ensure a true account could be given, a degree of flexibility within interviews was practised outside of set questioning [31]. Moreover, specific considerations such as design, sampling adequacy, bracketing, and acknowledgement of researcher perspective were employed through regular grounded discussions between researchers [32].

3. Findings

Four main themes were identified during the analysis of data: Pain and Death, Positivity, Powerlessness, and Remembering and Blame.

3.1. Pain and death

The theme Pain and Death was generated through subthemes *Descriptions of Physical Sensation* and *Facing Death.*

Descriptions of Physical Sensation. There were two ways participants chose to explain their somatic experiences: through the use of similes or by verbal quantification.

> The stab felt like a punch, he pulled the knife out. (*11*-M-35 yr-Stabbed)
> '*It was like ringing in your head, but I felt it in my leg.*' (24-M-21 yr-Gunshot wound)

They explained the pain in a way that they may have experienced before or normalised in a way to which they felt other people might be able to relate.

> [There was] '*loads*' of blood coming out of me. (*18*-M-25 yr-Stabbed)
> A lot of pain. (*36*-M-43 yr-Accident)

Some of the participants communicated their pain in a quantitative but unspecific way, with phrases such as 'loads' or 'all the time'.

Facing Death. One of the questions related to the experience of threat to life, which resulted in the concept of death in many accounts. There was an interesting divide in how participants responded.

> [He] felt afraid of dying, 90% of the medics and police thought he would die from very severe injuries (according to participant). (*12*-M-29 yr-Motor vehicle collision)
> He was afraid for his life. '*Very scared, didn't know if I was going to live or die.*' (*18*-M-25 yr-Stabbed)

Participant 12 may have wanted to justify his fear by affirming concerns with medical professionals, whereas participant 18 seems to communicate the threat dichotomously; will he live or die? A large proportion of participants alluded to their acknowledgement of death at the time of injury.

> '*They knew my breathing was tight, and I'm slowly dying.*' (9-M-19 yr-Stabbed)
> '*This is it.*' – (*43*-M-40-Motor vehicle collision)

This is unsurprising due to the high proportion of deaths annually caused by physical trauma [1]. What is interesting, however, is the differences in communications of finality. For participant 43 the realisation seems sudden and the death imminent, whereas participant 9 describes a long process.

The use of somatic description and explanations of death gives an insight into the behaviour of how participants accepted and understood their physical state.

3.2. Positivity

Many participants communicated feelings of positivity throughout their accounts, in spite of the fact that they all had clinically significant symptoms of psychological distress. The subthemes from the data were *Protective Factors, Heroism,* and *Making Light of What Has Happened.*

Protective Factors. There appeared to be three types of protection: coping strategies, future protective factors, and protective factors relating to the immediate situation. Several participants talked about feeling lucky, and many emphasized the input of family.

> [Participant's] wife has been in every day. [He has] one child, one due in 2 weeks. (*12*-M-29 yr-Motor vehicle collision)
> [He is] keen to get home. [He] will stay with girlfriend – she is pregnant. They are moving in together soon. (*5*-M-25 yr-Motor vehicle collision)

These participants imply that the upcoming birth of a child is a positive future prospect, which may be deemed a protective factor for their recovery.

Heroism. Heroism in the accounts was seen in statements of concern for others and bravery; participants were divulging altruistic and courageous testimonies.

> He is very accepting of [the] fact other patients might need help before him…He's worried about the guy [assailant] getting other people. (*22*-M-47 yr-Stabbed)
> …saw a car coming and pushed her friend out of way, couldn't get out of way herself. (*37*-F-23 yr-Motor vehicle collision)

Concern for others may be positive coping methods for dealing with trauma; the concept of actively putting others ahead of you may be rewarding. It is possible that participant 37 was communicating bravery in her concern, however there were other participants more explicit in their bravery.

> Not worried about seeing the gang again… '*I'm not the type to be scared or to freak out. I'm not scared of death.*' (*9*-M-19 yr-Stabbed)
> She didn't think she would die. She's a '*fighter*'. (*28*-F-19 yr-Motor vehicle collision)

Making Light of What Has Happened. Some participants used humour and made light of the situation in their accounts. They have taken a positive stance by using reflective humour in some cases.

> '*A story to tell one day.*' (*22*-M-47 yr-Stabbed)
> '*Funnily enough, I haven't cried yet.*' (*30*-F-58 yr-Accident)

3.3. Powerlessness

The theme of powerlessness was developed using initial codes of *Helplessness* and *Waiting Time.* There was a sense of lack of control and vulnerability within the extracts, insinuating powerlessness.

Helplessness. The concept of being helpless to the traumatic situation was present in many of the accounts. Some participants spoke of losing control of the situation, whilst others talked about being alone.

> The ladder wobbled then '*went.*' (*35*-F-62 yr-Accident)
> [He] was alone when van hit him. (*20*-M-24-Motor vehicle collision)
> Luckily neighbours were there, otherwise no one would have seen or heard her fall. (*30*-F-58 yr-Accident)

By mentioning the absence of people, participants may be expressing their vulnerability. Many of the participants refer to alcohol in relation to their injuries, a substance which can also contribute to vulnerability through decreasing inhibition.

> [He had] a couple of drinks…five pints. (*38*-M-45 yr-Mugging)
> [The] other driver had alcohol on his breath. (*43*-M-40 yr-Motor vehicle collision)

When another party involved in the trauma was under the influence of alcohol, this may have increased the victim's helplessness and powerlessness over the circumstances of the situation.

Waiting Time. There was a recurrence of powerlessness in the accounts regarding waiting times for help. However, it is important to note that participants were asked how long they waited for assistance.

> Ambulance called but seemed slow, so he was put in car…but ambulance seemed very slow to him. (*24*-M-21 yr-Gun-shot wound)
> When the ambulance finally came… (*9*-M-19 yr-Stabbed)

The participants who were unhappy with the amount of time they waited were mostly gunshot wound victims. There may be a link between powerlessness in this instance and the type of trauma suffered. For example, gunshot victims may have experienced a greater sense of magnitude. Moreover, it may be that those who were clearly injured at the hands of others felt more vulnerable and therefore impatient or scared for their lives.

3.4. Remembering and blame

Two subthemes were particularly strong within this theme: *Remembering and Uncertainty* and *Self-blame.*

Remembering and Uncertainty. A large number of participants communicated problems with their memories of the events. There is a divide between the participants who describe their memories as vague and those who may wish to forget the trauma.

> Vaguely remembers grabbing out as she fell. Then all very vague… her memories are vague for a long time…was it the drugs, she wonders. (*30*-F-58 yr-Accident)
> Doesn't remember impact or pain, glad she doesn't. (*37*-F-23 yr-Motor vehicle collision)

In the extract from participant 37, her explicitness about feeling glad she has no memory suggests she may be intentionally avoiding recollection. She scored highly on the ASD scale, and dissociation of memory may have been a symptom at the time of interviewing. Alternatively memory loss may result in a higher score on the ASDS.

Many participants communicated confusion over what happened to them during the traumatic injury, focussing on the potential cause of the accident.

> [She] thinks maybe she fell down stairs…wonders if someone put something in her drink. (*1*-F-38 yr-Accident)
> She didn't realise immediately what had happened; [she] thought it was a firework, then her friend said '*I've been shot in the heart*' and she realised. Was a few seconds later. (*27*-F-27 yr-Gun-shot wound)

> There is uncertainty over how the injuries happened.

> [She] went under the car, doesn't know how she got under it. (*28*-F-19 yr-Motor vehicle collision)
> [He] doesn't know how he got out, [he] thinks he was thrown out of a window. (*17*-M-40 yr-Attacked at home)

This may be a result of lack of memory; participant 17 states he does not know how he got out of his house. This could be a result of his blackout.

Self-blame. Not all participants were uncertain. Extracts suggest that some participants blamed themselves for their incident.

> '*It was my fault*'…pissed off with myself. (*20*-M-24 yr-Motor vehicle collision)
> I was so tired, came down the hill, didn't see the car. (*31*-F-43 yr-Motor vehicle collision)

Notably a number of participants communicating self-blame were involved in a motor vehicle collision. This was a different pattern to that seen among participants who experienced violence, who did not see themselves as the cause.

Participants did not report the re-experiencing of trauma through intrusive memories. This is somewhat surprising as recurrent recollection is often present in people with ASD. It may be that interviews were conducted too soon after the injury.

4. Discussion

This is an exploratory study of a sample of trauma survivors investigating how they reflect on their trauma experience and whether this could be used to help identify addressable unmet patient needs within health services. This sample represents an under-studied population and the novel use of secondary analysis and emergent themes provide information on the kind of psychological concerns survivors may have. Physical pain, death, emotional support, helplessness and uncertainty were significant for trauma patients and are potential focal points for those emergency healthcare professionals that see the patients most.

4.1. Pain and death

When participants described physical sensations during trauma, normalisation of pain may have been a way to explain their experiences. Bonanno [33] suggests that this may be a sign of resilience. Arguably, this could help with preserving esteem, reducing existential anxiety, and facilitating recovery. Some participants continue to describe what appears to be the acceptance of death. Surprisingly there is minimal qualitative research into the impact of acceptance of existentiality during injury.

Some clinicians believe that exposure to traumatic events always warrants psychological intervention [31], and the confrontation of death may be an avenue for therapeutic exploration. However few survivors of physical injury are referred to mental health services [34]. This may be due to patients refusing to be referred or a lack of consideration by healthcare professionals of potential psychological distress. Traumatic injury patients with clinically significant PTSD have limited insight into their condition and may be unaware of treatment options [35,36].

4.2. Positivity

Some participants expressed an optimistic view of their situation: this is particularly noteworthy given that all participants had clinically significant symptoms of depression, anxiety or ASD. They talked about personal protective factors. Positivity can be a major influence in personal recovery following a trauma of any kind [37]. It may be important for professionals to monitor positive responses throughout the recovery process.

Social support was a particularly prominent topic, and research suggests that it plays a vital role in the resilience of trauma patients [38,39]. The availability of patient support outside of medical care should be attended to by professionals, as some patients may be signposted or offered additional support interventions. This could help people feel less alone and more informed in their recovery process.

Participants also used humour in their accounts of trauma, which has been found to be particularly relevant to alleviating existential anxiety [40]. Furthermore, humour has been identified as a coping mechanism for resilience in difficult life circumstances [41,42]. This is a particularly important finding as humour is considered to be a highly adaptive defence mechanism for resilience and recovery [43,44]. However, positivity should not necessarily be taken at face value, as it may include an element of bravado. Ideally, care of physical trauma patients requires early detection of and attention to signs of distress [45], as obvious shows of positivity could mask a serious distress.

4.3. Powerlessness

The explanations of powerlessness highlight the loss of control over the situation and personal safety. A perceived lack of control has been identified as a defining element of the circumstances of the trauma [46]. Furthermore, research suggests that experiences of helplessness are common in trauma survivors [47]. Helplessness may be difficult to overcome leading to feelings of powerlessness in other areas of life [48]. This finding is prominent within these accounts. The participants' accounts of losing control may not seem significant when considered alongside normalised descriptions of waiting time and external attributions of power. However, they could indicate psychological symptoms with long-lasting consequences, particularly in those with highly levels of depression.

4.4. Remembering and blame

Explanations of memory were particularly informative: some felt they could not remember whilst others appeared to be avoiding recall. The causes of memory loss may differ depending on psychological paradigm. Axmacher, Do Lam, Kessler, & Fell [49] describe a lack of memory following trauma as either unconscious repression, cognitive dissociation or head injury. The repression of memories could be argued in such a context, however for participants involved in this study, cognitive dissociation may offer a more fitting explanation. Cognitive dissociation, mainly investigated in the context of PTSD [50], occurs when an external trauma conflicts with internal self-representations; clear narratives cannot be formed within autobiographical memory in such quick instances. Several participants in this research reported the rapid speed of trauma and could not remember sensory details.

4.5. Limitations

This study accessed a unique set of accounts of trauma, however, there are limitations in the nature of the data used. Firstly, the researcher carrying out the main analysis did not meet the participants in person, however this was addressed through regular meetings to ensure accounts were accurately understood and interpretations justified. Secondly, the data consisted of detailed researcher notations and are not as reliable as fully transcribed audio recordings. However, measures were taken to minimise potential biases through regular meetings between the interviewer and project lead, and between the interviewer and main analyser, to discuss technique and accounts. Finally, the interviews were relatively short for a qualitative analysis. It would be beneficial for future research to conduct more detailed interviews, though this could be challenging for trauma victims.

5. Conclusion

This study seeks to understand how physical trauma patients with early signs of psychological distress reflect on their trauma and how they might be supported further as a result of their communications with healthcare professionals. The data were reflective of previous findings within trauma literature regarding the development of mental health disorders. The themes derived through the analysis provide potential cues for nurses and clinical staff to attend to, aiding in the early detection of mental health decline, and attending to the needs of patients before distress levels become more difficult to manage through care or direction to services.

6. Conflict of interest

No conflict of interest has been declared by the author(s).

Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at https://doi.org/10.1016/j.ienj.2018.08.004.

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