

Article

Not peer-reviewed version

---

# Illness Narrative Master Plots Following Musculoskeletal Trauma and How They Change Over Time, a Secondary Analysis of Data

---

[Andrew Soundy](#)\*, [Maria Moffatt](#), [Nga \(Nicole\) Yip](#), [Nicola Heneghan](#), Alison Rushton, [Deborah Falla](#), [Lucy Silvester](#), [Nicola Middlebrook](#)

Posted Date: 1 August 2024

doi: 10.20944/preprints202408.0079.v1

Keywords: illness narratives; Master plots; Quest; Chaos; Restitution; Trauma; Qualitative



Preprints.org is a free multidiscipline platform providing preprint service that is dedicated to making early versions of research outputs permanently available and citable. Preprints posted at Preprints.org appear in Web of Science, Crossref, Google Scholar, Scilit, Europe PMC.

Copyright: This is an open access article distributed under the Creative Commons Attribution License which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Article

# Illness Narrative Master Plots Following Musculoskeletal Trauma and How They Change over Time, a Secondary Analysis of Data

Andrew Soundy <sup>1,\*</sup>, Maria Moffatt <sup>2</sup>, Nga (Nicole) Yip <sup>1</sup>, Nicola Heneghan <sup>1</sup>, Alison Rushton <sup>3</sup>, Deborah Falla <sup>1</sup>, Lucy Silvester <sup>4</sup> and Nicola Middlebrook <sup>5</sup>

<sup>1</sup> University of Birmingham, UK; A.A.Soundy@bham.ac.uk (A.S.); lenicoy@outlook.com (N.Y.); n.heneghan@bham.ac.uk (N.H.); d.falla@bham.ac.uk (D.F.)

<sup>2</sup> University of Liverpool, UK; m.moffatt@liverpool.ac.uk

<sup>3</sup> Western University, Canada; arushto3@uwo.ca

<sup>4</sup> University Hospital Coventry, UK; lucy.silvester@uhcw.nhs.uk

<sup>5</sup> Manchester Metropolitan University, UK; n.middlebrook@mmu.ac.uk

\* Correspondence: A.A.Soundy@bham.ac.uk

**Abstract:** Introduction; to the best of the authors knowledge no past research has established how illness narrative master plots are expressed initially, and then if, and how they change longitudinally following musculoskeletal trauma. The aim of the current research was able to consider how specific master plots were expressed, interact and change across time following musculoskeletal trauma. Methods; a narrative analysis was undertaken that included individuals who had experienced a musculoskeletal traumatic injury. Individuals were included if they were an inpatient within 4 weeks of the first interview had mental capacity to participate and were able to communicate in English. Three interviews were undertaken (within 4 weeks of injury, 6 and 12 months). A 5-stage categorical form type narrative analysis was performed. Results; Twelve individuals (49.9±17.5 years; 7 male, 5 female) completed interviews at three time points following the trauma event (<4 weeks months, 6 months and 12 months). Three main narratives that appeared to work together to facilitate a positive accommodation of the trauma event into the individual's life were presented. These included the resumption narrative, the activity narrative and quest narrative. Finally, less often regressive narratives were identified although these narratives were, at times, actively avoided. Discussion; The current results provide important consideration for how narratives are used within clinical practice, in particular the value of how these three narratives could be access and promoted.

**Keywords:** illness narratives; master plots; quest; chaos; restitution; trauma; qualitative

## 1. Introduction

Musculoskeletal trauma refers to life changing or life-threatening injuries caused by mechanisms of energy [1]. In addition to this, it is accompanied by deranged physiology and requires significant medical treatment that normally includes admission to a hospital intensive care unit, the provision of blood products and surgical intervention [2]. There are around 22,000 cases of musculoskeletal trauma in the United Kingdom each year [3]. Past research has focused extensively on the physical aspects of the injury, whilst more recently research has focused on the significant psychosocial aspects which accompany the event. For instance past research has identified that up to 50% of patients can experience depression and post-traumatic stress disorder and over a third of patients can experience anxiety [4]. The level of psychopathology appears to be significantly and negatively influence physical recovery initially following the injury [5] as well as years after the injury [6]. Pain also has been observed for years following the trauma and has been associated with worse health outcomes, like anxiety and depression [7].

Following musculoskeletal trauma patients require rehabilitation that can account for their physical, psychological and social needs [8]. During rehabilitation attention should be given to the

psychological and social concerns of patients to improve their physical health [9,10]. Health care professionals should know how to provide psychological support [11] and emotional support [12]. Knowing how to navigate expectations and fears of the future is particularly important and challenging [13]. One way of considering this is through paying attention to individuals' lived experience [14].

Illness narratives provide an accessible way to understand lived experience. Illness narrative master plots represent patient experience by focusing on a general storyline of that experience, the storyline is need recognised by an underlying plot. Illness narrative master plots can provide a statement about living with illness that is time orientated and reveals important aspects of psychology including acceptance and hope [15]. Understanding more about the master plots could pave the way for psychosocial interventions to be developed, something which is important following musculoskeletal trauma [10]. 2020). Three main master plots [16,17] following the onset of life changing illness have emerged as dominant in literature. These are the chaos narrative master plot (which illustrates a sense of hopelessness for the future), the quest narrative master plot (which seeks to embrace the future) and the restitution narrative master plot (which focuses on being restored to one's past). How and if these narratives master plots are expressed following musculoskeletal trauma is largely unknown, although research has been able to demonstrate that expressions do exist. For instance, review based research by Norris et al [14] identified that following musculoskeletal trauma individuals identify the importance getting back to 'normal' which may represent a restitution narrative. However, there is a need to understand this further, as past research has identified that the restitution narrative is less frequently observed when a severe type of disability has resulted [16]. Thus, knowing how the restitution narrative is expressed or if a variant is expressed is important to establish. In a similar way acceptance of the unchangeable nature of trauma has been identified as important following trauma [14] and this could provide a basis for the expression of quest narrative master plot illustrating embracement, or more regressive narratives illustrating loss. For instance, a variant of the quest narrative master plot (quest auto-mythology) is possible [16,17] and may be associated with expressions that represent a change in the character [14]. In contrast, the experience of trauma can be associated with a grieving process and the loss of roles and relationships [18]. 2020) and this may be reflected in sad or tragic narrative master plots [15].

It is important that further research identifies what narrative master plots exist as this information can be used to inform clinical practice and develop a better clinical environment that is positive for the patient [15]. It is also important that research considers how this expression changes following the onset of trauma as there are psychological and emotional needs of patients that vary across time and that are impacted by specific events during recovery [12,18]Ekegren et al., 2020; Robinson et al., 2019). To the best of the authors knowledge no past research has considered how the expression following trauma are represented by illness narrative master plots. Thus, the aim of this study is to provide an understanding of what narrative master plots are represented following a traumatic event and how these plots change across time.

## 2. Materials and Methods

This study is reported according to the Standards for Reporting Qualitative Research [19]. A study protocol was developed and can be accessed for more specific details of procedures undertaken [20].

### 2.1. Qualitative Approach and Research Paradigm

The research approach undertaken was a secondary analysis of data which used a narrative approach. This narrative approach was situated within the social constructivist paradigm with a relativist ontology and subjectivist epistemology. Within this approach each person's view is equally valid. A secondary analysis of data is highly valuable where data for specific groups is hard to obtain [21]. In the current study being able to access narrative expression across time, has, to the best of the authors knowledge is not achieved previously. However, secondary analysis of data must be associated with the original data collected to make it meaningful and this is considered a challenge

[21]. This challenge was overcome within the current study. The original interview guide was able to generate answers from participants that revealed central concepts found within narrative master plots. These central concepts included participants' expression of time and how they regarded recovery from the past towards the future, the perceived ability to psychologically adjust to the traumatic experience, and the ability to express hope for the future.

## 2.2. *Researcher Characteristics*

Two researchers (NM, MM) undertook all interviews.

## 2.3. *Context and Setting*

Interviews were conducted face to face and online with individuals

## 2.4. *Sampling and Sample Size*

A convenience sample of individuals from two major trauma centers in the UK were invited to take part. The sample size was identified as requiring enough participants to establish different narrative master plots the current study sought to establish transferability [22] of the master plots, which are well established across groups, rather than the unique stories and experiences from which they are observed. In past research small numbers such as 8 individuals have been used to represent specific master plots [23]. One of the reasons for this lower number is likely due to the self-selected nature of the sample and to some extent, views which are aligned and more common. For this research we were interested in all participants that completed 3 time points. This meant that a sample of 12 was possible, this was identified as sufficient to establish details of the most common narrative master plots and identify some form of transferability of findings to other settings.

## 2.5. *Ethical Approval*

Individuals were informed prior to interviews stating that all interviews were voluntary, and they could stop at any point or not answer any questions. Please see below for the ethical review statement.

## 2.6. *Data Collection Methods and Instruments*

Interviews were undertaken at three time points. Time point 1 was within 4 weeks of injury. Time point 2 represented 6 months following injury and time point 3 represented 1 year after injury. The rationale for this was to consider and compare expressions from early to later stages of recovery and rehabilitation.

A topic guide was developed for the interviews by a research team based on past literature [24,25] and based on the classification of function, disability and health (ICF) domains [26].

## 2.7. *Data Analysis*

Data analysis was undertaken using a 5-stage categorical form type narrative analysis [27]. The lead author undertook the secondary analysis of all interviews. Stage 1 included identification of master plots from scanning the interviews, together with factors that may be influencing the master plots or critical moments from the interview that appeared to shape the master plots. Stage 2 provided a summary of master plots for all 3 time points for everyone. Stage 3 and 4 involved focusing to identifying specific narrative master plots and clear identification of any new master plots. Stage 5 involved identification of how the master plots were to be presented

## 2.8. *Techniques to Enhance Trustworthiness*

Andrew's [28] framework was used to enhance the quality of this paper. This was established by ensuring that the context of the research was well understood. That the narrative master plots were observed and examined from past research on master plots and contrasted with current

findings. Finally, consideration to the multi-layered stories and variants of the stories were established as well as looking for negative cases or aspects of the data which appear untold.

### 3. Results

#### 3.1. Demographics

A total of 12 participants (49.9±17.5 years; 7 male, 5 female) completed all three time points. 7 had experienced multiple fractures and 5 single fractures. The average Injury Severity Score (ISS) was 9.5±3.7. For full demographics please see Table 1.

**Table 1.** Providing the demongraphics of participants.

Participant ID	Gender	Age	Fracture	Single/Multiple	Soft Tissue Injury	Further Detail	ISS Score	ISS Mild/Mod/Severe
1	Male	34	Yes	Multiple	Y	1. Closed Right Femoral Fracture 2. Closed left tibial fracture 3. Left foot injury 4. Right supraorbital laceration 5. Hand Injury	10	Moderate
4	Female	35	Yes	Single	N	1. Left diaphyseal femoral shaft fracture	9	Moderate
7	Male	57	Yes	Single	N	1. Proximal tibial fracture 2. Through knee amputation	16	Major
8	Male	59	Yes	Single	Y	1. Right open elbow dislocation 2. Laceration of brachial artery 3. distal radius fracture	9	Moderate
10	Male	44	Yes	Multiple	N	1. bilateral shoulder dislocation 2. right shoulder fracture with TSR 3. left femoral fracture	9	Moderate
12	Male	80	Yes	Multiple	Y	1. Left hip dislocation 2. Left acetabular dislocation 3. left distal humerus fracture 4. left olecranon fracture 5. left 5th rib fracture 6. left knee laceration 7. left grade 3 PCL/MCL injury	5	Mild
14	Female	73	Yes	Multiple	N	1. Left tibial plateau fracture 2. Fractured ribs	8	Mild

15	Male	36	Yes	Multiple	Y	1. Right and left medial malleolus fracture 2. left open calcaneus fracture 3. Left tibial laceration 4. elbow injury	9	Moderate
17	Male	60	Yes	Multiple	N	1. Left rib fracture 2. Left clavicle fracture 3. T11 and L1 fracture	9	Moderate
18	Female	20	Yes	Single	N	Right femoral shaft fracture and knee ligament injury	9	Moderate
20	Male	57	Yes	Multiple	N	Right scapula fracture, left comminuted tibia and fibula fracture	4	Mild
24	Female	44	Yes	Multiple	N	1. R acetabulum # 2. R hip dislocation 3. Left tibial plateau # 4. R rib # 9-12 posterior 5. R transverse process # Lx spine	17	Major

### 3.2. The Narrative Master Plots

Three specific narrative master plots were identified including the resumption narrative, the action narrative and the quest narrative. Finally, there were also some, but limited expressions that represented regressive narratives. Table 2 provides example quotes for each narrative and time point.

**Table 2.** Provides illustration of quotes from participants.

Narrative master plot	Time point	Example quotes
Resumption	1	<p><i>‘a couple of weeks[time]...if I can walk before Christmas I’ll be laughing’.</i> (P1)</p> <p><i>“I just know it’s going to take a while, but, like, I’ll be back good as new at some point”</i> (P4)</p> <p><i>“I want to get back on a prosthetic and I want to be walking, I want to be everybody else’s height or whatever height I was”</i> (P7)</p>
	2	<p><i>“[I am at present] about 80% function may be now, and I’m hoping to get back to 90%”</i> (P24)</p> <p><i>“people that have been told they are never going to walk again. Next thing they’re winning an Olympic gold medal”.</i> (P1)</p> <p><i>“[I have watched] above knee people...and I think...if they can do that...ride a bike, ride a motorbike, climb mountains [I can]”.</i> (P7)</p>

	3	<p><i>"I was going to be okay by Christmas. It's now been a year. I'm obviously still not okay. So, that's probably the biggest wakeup. So, I've times that by about 10 [years]". (P4)</i></p> <p><i>"could see [from the scan] that the other leg was just as bad as that one. So, it looks like a minefield of bones" (P14)</i></p>
Action	1	<p><i>"I have been back in to see the consultant this week, on Tuesday, but again, I had to do that myself and get myself in the car. We had to drag me into the car and drive me to [hospital location]". (P24)</i></p> <p><i>"[I] did my stairs, and then got a wheelchair back. So that was...Thursday was my turning point; my good day" (P24)</i></p> <p><i>stating "[I] did my stairs, and then got a wheelchair back. So that was...Thursday was my turning point; my good day". (P18)</i></p>
	2	<p><i>states "woke up one morning and the ribs were fine...so I thought well, I'm not in pain now." (P17)</i></p> <p><i>I've had a few incidents of crying in the car and things, especially if the kids have been fighting and I haven't felt just safe" (P24)</i></p>
	3	<p><i>"I'll practice that more and more and more. I know it takes time, but it does seem to work" (P14)</i></p> <p><i>"can be a bit psychologically difficult to deal with because you're sort of asking yourself, is this something I'm going to have to keep forever?" (P24)</i></p>
Quest	1	<p><i>"other people might think of me as disabled. I think I'm extremely able. Yeah. It's a matter of attitude, isn't it?". (P14)</i></p> <p><i>"I am aware that that is maybe not possible, but I'm trying to sort of keep quite a neutral mindset, not worry one way or the other because I don't think that that's helpful". (P10)</i></p> <p><i>" I just feel lucky to be alive you know and its completely changed my life, my attitude, you know I just want to look after myself more. I've lost, my weight is down, I've never been so... my weight has never been so low." (P20)</i></p>
	2	<p><i>"in my mind I was going this way, my accident made me go this way [a different way], but I still want to keep on going forward but just on a different way" (P1)</i></p> <p><i>"now I have to plan everything and plan my food, my weekly intake of food...its been hard adjusting to all that sort of thing". (P15)</i></p>
	3	<p><i>"She [health care professional] said to me jokingly, she goes, look, you've got to realise that that's not your own leg, it's a prosthetic leg.... I needed someone to tell me that because sort of like, the way things were going, it was like, everybody was saying, yeah, it will be good as new.". (P7)</i></p> <p><i>my arm...I've lost all muscle in it...but it will be alright... I'm a bit restricted with that but at least I can get about" (P12)</i></p>
Regressive	1	

2	<p><i>"[I] try to keep some positive thoughts about it [recovery]. At the same time... I do get thoughts of like I'm not going to be to walk again. Is my foot ever going to get better or will it need an amputation in the years ahead". (P15)</i></p>
3	<p><i>"I feel as though if I sat down and dwelled in all it, it's just going to make it worse". (P1)</i></p> <p><i>"I really started to do really well with my initial recovery, then I just kind of like plateaued, almost went backwards. That was really hard." (P4)</i></p> <p><i>"it's sort of comeback worse I suppose. I thought I was over the hump and more accepting and that's difficult now because I think the realisation, the reality is that we're pretty much as good as it will get. And in some ways, it's like worse. My back is really painful". (P8)</i></p>

### 3.2.1. The Resumption Narrative Master Plot

The basic plot of this narrative master plot was I will return or resume activities, relationships, roles or social identities that I previously assumed. The goal of this narrative was to look forward and (re)establish aspects of life which were identified as meaningful and 'normal' before the onset of the traumatic event. The narrative had a firm hope that was more open to change or problems than being considered as concrete and definite. The idea of normal often would include being recovered or as good as new, whilst some would identify a focus around being fixed like new, a greater focus was on being able to access past meaningful activities. Given this, the restoration of the body and function was important but complete physical restoration represented only one way to access what was considered as normal and meaningful. Many times, resumption would focus on the (re)establishment of activities, like walking, roles for instance within the workplace or relationships where (re)establishing independence was important. The way this narrative master plot was expressed was unique to the individual and changed around what was represented as 'normal' for each participant.

#### 3.2.1.1. Time Point 1

The resumption narrative at this time point most often reflected a desire to return to normal. 'Normal' represented activities, roles or movement. For instance, getting out with children (P10), getting back to work (P1), having an adapted role at work (P8), walking and not being in a wheelchair (P7). Some individuals would attach short time frames to achieving these activities and roles, often expressed as months. For instance, '4 to 6 months to fully recover' (P20) or 'a couple of weeks' for walking (P1). Resumption of activities were not always assumed, this was due to the recognition of the extent of the injury being life changing (P8), that to what extent activities could be achieved were unknown (P12), healing was still needed (P14) and some were aware that recovery could go wrong (P17), or aspects of recovery could go wrong, for instance, that the grafting may still go wrong (P15). Further to this, others expressed being more open to the idea that change, and resumption could occur more slowly (P8; P10). Some individuals focused on being restored (reflecting a restitution master plot), this was expressed as being as 'good as new' (P4) or being recovered (P20).

#### 3.2.1.2. Time Point 2

The resumption narrative had progressed at this time point as some had resumed normal activities, roles and relationships. For instance, driving a car or taking the stairs (P10). Some expressed resumption as a percentage that illustrated the number of normal activities, roles or relationships that were considered resumed. This could be as high as being 90% recovered (P17), or 80-90% recovered (P20, P24). An extended time frame for resumption of activities was given compared to time point 1. For instance, 6 months' time for walking (P7), or being in a good place (P20) or a year to hit targets (P10) or 1 or 2 years to get back to normal living (P1, P4). One individual didn't give a time scale but

believed the injury would be fixed (P17), reflecting a restitution narrative. Although others (P14) identified being fixed as not possible (anti-restitution), but rather focused on being able to resume walking. Activities and roles not established yet were identified as not being able to run (P18) or this was expressed as goals to be achieved such as going to the gym (P1) or running 5k and swimming (P24). For some the resumption narrative was less certain for several reasons including uncertainty around healing (P10, P24) or because of the advice given from health care professionals (P15). Resumptions stories of others were referenced by some to contrast uncertainty and identify possibility for eventually being able to access normal (P1, P7, P10). Examples included people who were back to 'normal' 8, or 20 to 30 years after the accident (P1, P10 respectively). In one instance this contrasted what health care professionals told them (P1).

### 3.2.1.3. Time Point 3

The resumption narrative had progressed at this time point as many had resumed normal activities, roles and relationships, however, the narrative was presented alongside more specific limitations. Limitations included, flexibility and muscle strength (P17), going up a ladder or doing netball (P18), running after the kids (P24) experiencing pain when performing certain activities like jumping from a height or climbing the stairs (P4). For some, the resumption of more difficult activities was possible, such as working in a workshop (P7), Hoovering the car and cutting toenails (P17). Others had progressed less, but would still reference getting normality back (P15) or having normality creeping in (P10). Still others would identify an extended timeframe for when they expected resumption of activities to begin. P14 identified that a scan demonstrated why the resumption of activities was not possible and P7 identified that the importance of resumption of activities was relative, as 'being old he didn't worry so much about image'.

### 3.2.2. The Activity Narrative Master Plot

The basic plot was that the action or activity I take in the present will provide me with progress towards a better future. In contrast the narrative explicitly did not associate it with looking backwards or dwelling on the past and loss. The narrative represented an opportunity of gaining independence and that had the potential to aid an aspect of health and well-being. Action represented an act of engaging in a process, treatment, or activity, following which made a future more possible. The activity identified within the narrative was vast but could include medication, surgery, accessing support, adhering to rehabilitation, physical activity, exercise or sport or functional movements that could provide a basis for hope and change. Most often it was represented by referring to movements and rehabilitation. It provided a source of hope when an action or activity was identified in the future, like surgery and was affirmed or enhanced by moments of progress. Limits to action were identified when activities attempted failed or were identified as limited because of a concern around risk of performing the activity.

#### 3.2.2.1. Time Point 1

At this time point the activity narrative master plot was focused on the need to act, to make small gains or take small steps to achieve goals around independence. For example, this included getting better and being determined to push through (P12), seeing everything as a challenge and trying to accomplish it rather than dwelling on what had happened (P1). Specific movements, however, could be identified as not possible like taking a shower or getting dressed (P1, P12).

Moments were identified as helping the activity narrative. These moments included, looking forward to the day of surgery (P8), achieving small changes as something which was positive and motivating (P10, P17). Specific moments of change and progress were identified as motivating and allowed for more goals to be identified. This included standing up (P17), walking (P1), being able to move up the stairs and getting a wheelchair (P18). In contrast moments of failure or limitations of activity were identified, this included attempting the stairs (P1), not being allowed to do more than a specific activity like toe touch weight bearing (P18). One participant (P17) identified being more

risk adverse following the traumatic event and identified that this limited the activity that was attempted.

#### 3.2.2.2. Time Point 2

During this time point the action narrative had evolved to reflect activities and actions that allowed the individual to solve specific problems and maintain independence (P2; P14). For instance, this included getting up the stairs using hands and a 'bum shuffle' (P14). The narrative was supported by a strong and continued need for independence (P14). The ability to access the narrative was supported by named characteristics, for instance, having a tenacity and determination to keep going (P10). The activity narrative could be enhanced by specific moments that allowed action. For instance, this could include the prosthetic fitting (P7) or waking up and not feeling in pain (P17). Moments of adverse outcomes could result from activity, this included experiencing pain (P17, P24), or having tried action and fallen over (P7). Some negative outcomes like pain could be seen as positive e.g., pain because muscles have worked hard (P4).

Limits of action were linked with the risk of undertaking movement or activities which could create or cause fear and potentially impact progression. Danger was identified with performing tasks like standing on a stall or dropping from a height (P10), walking and 'catching myself out' (P1), undertaking activities and damaging the joint (P15; P18). Awareness of pain and danger from movements like bending or writing of heavy lifting (P17), using pain as an indicator to 'take a step back' (P1) or as indicating the body is being pushed too far (P14), fatigue which could add to concerns felt around action and movement (P8). Alternatively, P24 identifies an awareness of danger when driving which is how the accident occurred previously.

#### 3.2.2.3. Time Point 3

At this time point many were able to identify that action and activity worked and needed to be continued. This would allow them to be stronger than before the accident (P4, P18), walk longer than before (P14), and make life easier in the future (P7). It would also allow a return to sport (P18), or exercise classes (P24). Action allowed some to focus on specific moments in the future where improvements had been realised because of the action taken (P10, P12, P17). For instance, this could be crutches free (P10). If improvement was perceived even slightly it provided a path for further possibility (P7, P15, P24). Pain was a primary limiter of action, as it stopped actions (P17). For instance, expressions around pain included not being able to take a step without pain (P8), other identified that pain prevented goals being set (P20). Some accepted pain as part of action (P8), but others identified a concern that pain could be associated with the named activity or action forever (P24). Knowing the experience of pain prevented action, this could be attempting a particular movement (P17) or undertaking an activity like driving for a long time (P24). The experience of pain could be complicated by knowing that pain often didn't give a warning and the level of pain could not be controlled (P8).

#### 3.2.3. The Quest Narrative

The basic plot for the quest narrative was that if I can accept the problem or challenge that is face, take a break from it, get around it, make the most of the it or look at the positive aspects left then I can embrace the present circumstances and continue to engage in life and overcome or move that which is faced. Thus, whatever challenged was faced individuals telling this narrative were able to see the situation as an opening or opportunity and could consistently identify a valued future as well as identifying gains from the experience.

##### 3.2.3.1. Time Point 1

At this time point a general quest narrative was most often identified. The plot of the narrative illustrated the importance of reframing, for instance, this could included not seeing themselves as disabled, but rather 'extremely able' (P14). For others the plot was illustrated by a need to work with

what is possible. For instance, if their knee hurt, they would work with the upper body (P1). Some identified the need to get around problems. For instance, getting around on crutches (P12). As part of such solutions some expressed an acceptance that accidents can happen (P10) and, if they do, consequences are known (P14). Two individuals (P18, P20) identified a change of character or a quest auto-mythology. This included prioritising health, including eating, sticking to professional advice and exercise.

### 3.2.3.2. Time Point 2

The quest narrative at this time point focused on accommodating changes, this included continuing activities by planning what to do (P15), being aware of the environment and how to navigate it, this could include an awareness of curbs on the pavement when using a wheelchair outside (P7). Some identified the importance of accepting that normal may not return (P8). Other focused on consider what was possible and would make the best of what was possible (P24), or, work with those activities that were possible (P14).

### 3.2.3.3. Time Point 3

The quest narrative most often focused on valuing what was possible as a major aspect of the plot. This included focusing on what was left, maximizing the present (P14), being proud of being disabled (P7), this may reflect an auto-mythology narrative and a change in character. Others identified benefit finding as an outcome following the accident. For instance, this could include meeting people that would have not been met otherwise (P14). Other narratives focused on finding a different way forward (P1) or adapting to challenges. For instance, this could include identifying the best shoes to wear (P1) or knowing when to use crutches (P15). For P7, health care professionals helped the quest narrative saying there is nothing more that can be done (P7).

Problems with the health system were recounted by three individuals (P7, P14, P17). This identified problems with the systems used for support and getting access to or receiving care and could have led to a quest manifesto. Although there was no demand for social change from individuals as they expressed empathy towards the pressured environment experienced by health care professionals within the national health service.

## 3.2.4. Regressive Narratives and Moments

The basic plot of a regressive narrative was that life was not progressing as planned, the future was unlikely to change because recently progress appeared to be limited, plateaued or got worse and the likelihood of change was not possible. This could be impacted by medical assessments and experiences over time. The expression illustrates elements of a sad narrative plot most often with a more regressive tragic plot less often. The expression often identified that the possibility of change was out of the patient's control and distance was created between where the individual was at present and where they hoped that change could lead in the future. Some participants reflected on time limited regressive or sad moments between interviews, stating that during these experiences they were low, sad, or depressed.

### 3.2.4.1. Time Point 1

Regressive narratives did not appear within this time point. This was likely due to time since injury and the dominance of the other narrative expressions and ability to be hopeful.

### 3.2.4.2. Time Point 2

At this time point regressive narratives and plots could be associated with the tragic narrative where individuals identified that nothing more that can be done (P1), or, that there are no more goals to hit (P24). Some identified uncertainty for the future which questioned a more progressive narrative. For instance, this could include not knowing if the foot will heal or get better (P15). One

individual (P12) identified a more regressive narrative due to an additional injury that had prevented progress and meant more time was needed before progression could be achieved.

#### 3.2.4.3. Time Point 3

The regressive master plot at this time point was often focused on limited improvement. Some had experienced a plateau after some improvements at earlier time points (P4), others had taken a step backwards at a particular time point (P24). P12 talked about having an additional problem of a catheter and that before that was removed, he was 'down; and 'not doing very well'. Others identified that changes were no longer possible (P10, P24) for them.

Some regressive moments were presented as things to avoid. For instance, not dwelling on loss (P1) and that being negative can make living harder (P18). However, moments of assessment like scans could illustrate bad news (P17). A more permanent sad narrative was expressed by P8 identifying the process as grieving and fitting more with a tragic narrative that could be more permanent.

## 4. Discussion

To the best of the authors knowledge this is the first study to consider the interplay of narrative master plots across time for individuals following a major musculoskeletal trauma. The main narrative master plots identified in the current study were able to work together to allow a continued positive outlook. The resumption narrative and the desire to resume meaningful activities, roles and relationships was most often associated with the action narrative and individuals being able to identify specific activities and actions taken to achieve aspects of normality. The quest narrative master plot enabled individuals continued access to the resumption narrative master plot when limits or restrictions were identified. These narratives provided an illustration of how, the current participants in the study were able to switch between master plots to help maintain a positive future focused outlook. This is something which is considered important for health outcomes in people following trauma [29] and people who face chronic and palliative conditions [15]. More regressive narrative master plots appeared as restricted and expressed in a limited way within the individuals, often being referred to previously within a specific time limited moments.

The resumption narrative master plot

The need to set and achieve meaningful goals throughout recovery has been found as consistent from literature on trauma [14] and literature focused on life changing events [30]. The resumption narrative supported this through the desire to return to, what is considered by the individuals in the study, normal and meaningful activities, relationships and roles. The advantage of the resumption narrative over the restitution narrative is following training the restitution narrative can be assessed by therapists as not being realistic, not accepting what is happening in the present or being in denial [31], therapists can also be concerned about phrases like being as good as new [16]. Given that across time the resumption of normality around activities and roles becomes a focus and more specific limitations become known and that there appeared to be no expression of the restitution by time point 3, it is important for therapists to understand that the restitution may well be naturally challenged across time and to prevent it prematurely could cause more distress than benefit. Time point 2 appeared to be the most associated with expressions of uncertainty towards the future. Also, during this time point the time frame for recovery was extended compared to time point 1. One-way individuals appeared to establish a more hopeful and open outlook by identifying positive stories of others, who, often years following trauma had regained normality. This is supported by other literature which identifies that having access to positive stories can provide pathways for hope to develop [15,32]. Further to this, review evidence has identified that narrative interventions are able to impact an individual's psychological well-being by increasing the motivation for action, providing meaning and fulfilment, enhancing a perception of quality of life as well as influencing perceptions of control [33]. These factors are important as they will likely influence the individual's ability to of

being able to return to work and normal activities has been identified as important goal to achieve following trauma [34].

The action narrative

The action narrative master plot appeared to play a pivotal role in helping individuals find hope and a way forward, this finding is supported by existing theoretical understanding [15] but also by literature which has identified the high number of patients (77%) supplementing rehabilitation and the perception that this will influence therapeutic outcomes [35]. Patients in the current study valued small progressive steps towards improvement, something which has been identified as important landmarks indicating progress towards a sense of normality [14]. Past research has identified that identifying different pathways to achieving goals is important for individuals who experience trauma, for instance, using adaptive equipment, pacing and taking rest, changing forms of activity [18]. Undertaking action or activities was likely a process by which hope was generated and a focus on action likely protected against other more regressive narratives. This is supported by past literature which has consistently identified a negative association between hope and depression [36].

Action appeared to be a more independent activity at later time points and individuals were able to specify limits of action and had to learn to deal with adverse outcomes following action like pain and reduced energy. It may be at later time points individual require greater agency thinking (thoughts about oneself that produce confidence and energy to being and continue to act towards a goal) as particularly important [37]. This was expressed in current studies by individual determination and self-motivation [18]. At time point 2 specific limits of action were identified, risks of action were considered and activities that could not be performed were identified. In support of this, past research has identified the importance of managing fear avoidance, notably at 6 or 12 months where concerns are specifically related to movement [11].

Interestingly a fear of reinjury has previously appeared as a limiting factor 3 years following the trauma [18]. Further a common fear for people following trauma is how long is needed for healing to take place, since this perception, if negative influences their ability to access activities [34]. Thus, individuals may benefit from an assessment around fear or movement following discharge and strategies to help reduce fear of movement.

Pain was expressed more specifically at time point 3 with specific movements and identified as something which may not change in the future. An understanding of this by therapists could be useful and may benefit from psychological treatments around acceptance.

The quest narrative

The quest narrative appeared a major way to overcome obstacles, challenges and pain, thus it provided a way forward where action was not possible to create change and this help support the resumption narrative. It is likely that being able to embrace the challenges enhanced an individual goal related energy and enabled the resumption narrative to continue [38]. The Quest narrative master plot could aided by past experiences of accidents and challenges and moments of reality when individuals were told about limits of progress evident or rehabilitation potential.

Regressive narrative and/or moments

Often moments of sadness or depression or time reflecting of the tragic nature of the events was actively avoided. By using the above narratives during the first two time point, individuals state they will not dwell on the loss and change. At time point two one participant was particularly affected by this, since improvements were expressed as less than those hoped for, progress was identified as having stopped, and the experiences of pain and the limitations of movement were identified as negative aspects which would likely continue. These experiences have been shown to limit the ability to be hopeful in past literature in general [15], but this has been noted following trauma, for instance, individuals can be frustrated by a lack of progress, loss of a perception of control [34]. Importantly, individuals who have expressed a narrative of despair or chaos most often felt like their life was out of control and were also dependent on others [17], alongside these individuals identify an empty present and a future that is lost to the effects of the illness [39]. Limited improvements after discharge and a less positive outlook can create a lack of positivity in patients following discharge [29] and being able to support patients during regressive moments has been identified previously as an

important element of psychological and emotional wellbeing support following musculoskeletal trauma [12] and important more generally for people who face significant loss or challenge [15].

## 5. Conclusions

This research has identified an important association between narrative master plots across time. The self-selected nature of the sample may be one reason for the consistency in the narrative presented and what allowed individuals to keep looking forward positively. Further research is needed to confirm these findings.

**Supplementary Materials:** The following supporting information can be downloaded at the website of this paper posted on Preprints.org.

**Author Contributions:** Conceptualization, AS, NM, and MM.; methodology, AS.; validation, AS, MM, and NM; formal analysis, AS; investigation, NM and MM.; data curation, AS, NM, MM; writing—original draft preparation, AS; NM; MM.; writing—review and editing, all authors; supervision, NM. AR, DF; project administration, NM; MM.; funding acquisition, all authors. All authors have read and agreed to the published version of the manuscript.

**Funding:** This study is funded by the Private Physiotherapy Educational Foundation (PPEF) as part of a joint funded initiative with the Chartered Society of Physiotherapy Charitable Trust (CSPCT).

**Institutional Review Board Statement:** This study was reviewed by London - Fulham Research Ethics Committee within the UK Health Departments' Ethics Service and has gained approval from the Health Research Authority (HRA) (IRAS 287781/REC 20/PR/0712).

**Informed Consent Statement:** Informed consent was obtained from all subjects involved in the study.

**Data Availability Statement:** The supplementary file contains anonymous data.

**Acknowledgments:** Thank patient support provided for all steering group meetings.

**Conflicts of Interest:** The authors declare no conflicts of interest.

## References

1. Thompson, L.; Hill, M.; Lecky, F.; Shaw, G. (2021). Defining major trauma: a Delphi study. *Scandinavian Journal of Trauma, Resuscitation and Emergency Medicine*, 29, 65. <https://doi.org/10.1186/s13049-021-00870-w>
2. Thompson, L.; Hill, M.; Shaw, G. (2019). Defining major trauma: a literature review. *British Paramedic Journal*, 4; 22-30. <https://doi.org/10.29045/14784726.2019.06.4.1.22>
3. Cole, E. (2022). The national major trauma system within the United Kingdom: inclusive regionalized networks of care. *Emergency and Critical Care Medicine*, 2; 76-79. DOI: 10.1097/EC9.0000000000000040
4. Schemitsch, C.; Nauth, A. (2020). Psychological factors and recovery from trauma. *Injury*, 51; supplement 2l S64-S66. <https://doi.org/10.1016/j.injury.2019.10.081>.
5. Sutherland, A.G.; Alexander, D.A.; Hutchison, J.D. (2006). The Mind Does Matter: Psychological and Physical Recovery After Musculoskeletal Trauma. *The Journal of Trauma: Injury, Infection, and Critical Care*, 61; 1408-1414. DOI: 10.1097/01.ta.0000197562.34651.df
6. Sutherland, A.G.; Suttie S.; Alexander, D.A.; Hutchison, J.D. (2011). The mind continues to matter: psychologic and physical recovery 5 years after musculoskeletal trauma. *Journal Orthopedic Trauma*, 25; :228-32. doi: 10.1097/BOT.0b013e3181ee40a9. PMID: 21399473.
7. Rosenbloom, B. N.; Khan, S.; McCartney, C.; Katz, J. (2013). Systematic review of persistent pain and psychological outcomes following traumatic musculoskeletal injury. *Journal of Pain Research*, 6, 39–51. <https://doi.org/10.2147/JPR.S38878>
8. Bridger, K.; Kellezi, B.; Kendrick, D.; Radford, K.; Timmons, S.; Rennoldson, M.; Jones, T.; Kettlewell, J.; on behalf of the ROWTATE Team. (2021). Patient Perspectives on Key Outcomes for Vocational Rehabilitation Interventions Following Traumatic Injury. *International Journal of Research in Public Health*, 18, 2035. <https://doi.org/10.3390/ijerph18042035>
9. Kang, K.K.; Ciminero, M.L.; Parry, J.A.; Mauffrey, C. (2021). The psychological effects of musculoskeletal trauma. *Journal of the American Academy of Orthopaedic Surgeons*, 29; e322-e329. DOI: 10.5435/JAAOS-D-20-00637
10. Simske N.M.; Breslin, M.A.; Hendrickson, S.B.; Vallier, H.A. (2020). Are we missing the mark? Relationships of psychosocial issues to outcomes after injury: A review of OTA annual meeting presentations. *Orthopedic Trauma Association International*, 23;e070. doi: 10.1097/OI9.0000000000000070.

11. Chi-Lun-Chiao A.; Chehata, M.; Broeker, K.; Gates B.; Ledbetter. L.; Cook, C.; Ahern, M.; Rhon, D.I.; Garcia AN. (2020). Patients' perceptions with musculoskeletal disorders regarding their experience with healthcare providers and health services: an overview of reviews. *Archives of Physiotherapy*, 10:17. doi: 10.1186/s40945-020-00088-6. PMID: 32983572; PMCID: PMC7517681.
12. Robinson, L.J.; Stephens, N. M.; Wilson, S.; Graham, L.; Hackett, K. L. (2019). Conceptualizing the key components of rehabilitation following major musculoskeletal trauma: a mixed methods service evaluation. *Journal of Evaluation in Clinical Practice*, 26; 1436-1447. DOI: 10.1111/jep.13331
13. Carroll, L. J.; Lis, A.; Weiser, S.; Torti, J. (2016). How Well Do You Expect to Recover, and What Does Recovery Mean, Anyway? Qualitative Study of Expectations After a Musculoskeletal Injury. *Physical Therapy*, 96; 797–807. <https://doi.org/10.2522/ptj.20150229>
14. Norris, S.; Graham, L.; Wilkinson, L.; Savory, S.; Robinson, L. (2023). Patient perspectives of recovery following major musculoskeletal trauma: a systematic review and qualitative synthesis. *Trauma*, 0. doi:10.1177/14604086231211995.
15. Soundy, A. (2024). *Harnessing hope in managing chronic illness. A guide to therapeutic rehabilitation*. Routledge, London.
16. Frank A. 1995. *The Wounded StoryTeller*. Chicago University Press. USA.
17. France, E.F.; Hunt K.; Dow C.; Wyke, S.; (2013). Do men's and women's account of surviving stroke conform to Frank's narrative genres? *Qualitative Health Research*, 23; 1649-1659.
18. Ekegren, C.L.; Braaf, S.; Ameratunga, S.; Ponsford, J.; Nunn, A.; Cameron, P.; Lyons, R. A.; Gabbe, B. J. (2020). Adaptation, self-motivation and support services are key to physical activity participation three to five years after major trauma: a qualitative study. *Journal of Physiotherapy*, 66, 188-195.
19. O'Brien, B.C.; Harris, I.B.; Beckman, T.J.; Reed, D.A.; Cook D.A. (2014). Standards for reporting qualitative research: a synthesis of recommendations. *Academic Medicine*, 89:1245-1251. doi: 10.1097/ACM.0000000000000388. PMID: 24979285.
20. Middlebrook, N.; Heneghan N.R.; Falla, D.; Silvester, L.; Rushton, A.B.; Soundy, AA. (2021) Successful recovery following musculoskeletal trauma: protocol for a qualitative study of patients' and physiotherapists' perceptions. *BMC Musculoskeletal Disorders*, 22:163. doi: 10.1186/s12891-021-04035-9. PMID: 33568110; PMCID: PMC7874566.
21. Chatfield, S. L. (2020). Recommendations for secondary analysis of qualitative data. *The Qualitative Report*, 25: 833-842.
22. Drisko, J. W. (2024). Transferability and Generalization in Qualitative Research. *Research on Social Work Practice*, 0(0). <https://doi.org/10.1177/10497315241256560>.
23. Alawafi, R.; Rosewilliam, S.; Soundy, A. (2022). A qualitative study of illness narratives: 'overcoming the monster' master plot for patients with stroke. *International Journal of Therapy and Rehabilitation*, 29: 1-12. <https://doi.org/10.12968/ijtr.2021.0131>
24. Rushton, A.B.; Evans, D.W.; Middlebrook, N.; Heneghan, N.R.; Small, C.; Lord J, et al. (2019). Development of a screening tool to predict the risk of chronic pain and disability following musculoskeletal trauma: protocol for a prospective observational study in the United Kingdom. *BMJ Open*, 8(4).
25. Clay, F.J.; Watson, W.L.; Newstead, S.V.; McClure, R.J. (2012). A systematic review of early prognostic factors for persistent pain following acute orthopaedic trauma. *Pain Research and Management*, 17:35–44.
26. World Health Organisation. (2001). *International Classification of Functioning, Disability and Health: ICF*: World Health Organization; 2001.
27. Earthly, S.; Cronin, A. (2008). *Chapter 21 Narrative Analysis*. In N. Gilbert (ed). *Researching Social Life (3rd Edition)*. London, Sage.
28. Andrews, M. (2021). Quality indicators in narrative research. *Qualitative Research in Psychology*, 18; 353-368. Doi: <https://doi.org/10.1080/14780887.2020.1769241>
29. Blackburn, J.; Yeowell, G. (2020). Patients' perceptions of rehabilitation in the community following hip fracture surgery. A qualitative thematic synthesis, *Physiotherapy*, 108; 63-75.
30. Ogilvie, R.; McCloughen, A.; Curtis, K.; Foster, K. (2012). The experience of surviving life-threatening injury: a qualitative synthesis. *International Nursing Review*, 59: 312-320. <https://doi.org/10.1111/j.1466-7657.2012.00993.x>
31. Soundy, A.; Smith, B.; Cressy, F.; Webb, L. (2010). The experience of spinal cord injury: using Frank's narrative types to enhance physiotherapy undergraduates' understanding. *Physiotherapy*, 96, 52-58. <https://doi.org/10.1016/j.physio.2009.06.001>
32. Brokerhof, I.M.; Ybema, J.F.; Bal, P.M. (2020). Illness narratives and chronic patients' sustainable employability: The impact of positive work stories. *PLoS One*, 10;15(2):e0228581. doi: 10.1371/journal.pone.0228581. PMID: 32040494; PMCID: PMC7010250.
33. Bryne, C.; Soundy, A. (2020). The effects of storytelling in the promotion of physical activity for chronically ill patients: an integrative review. *International Journal of therapy and Rehabilitation*, 27; 1-13 <https://doi.org/10.12968/ijtr.2019.0091>

34. Claydon, J.H.; Robinson L.; Aldridge, S. E. (2017). Patients' perceptions of repair, rehabilitation and recovery after major orthopaedic trauma: a qualitative study, *Physiotherapy*, 103, 322-329. <https://doi.org/10.1016/j.physio.2015.11.002>.
35. Silvester, L.A.; Trompeter, A.J.; Hing, C.B. (2021). Patient experiences of rehabilitation following traumatic complex musculoskeletal injury – a mixed methods pilot study. *Trauma*, 24; 218-225. doi:10.1177/1460408620988123
36. Blake, J.; Leppma, M.; Mamboleo, G.; Nauser, J.; O'Toole, H.; Chan, F. (2020). Attachment and hope as a framework for improving depression outcomes for trauma patients. *Journal of Applied Rehabilitation Counseling*, 51, 94-114.
37. Corrigan, J.A., Schutte, N.S. (2023). The relationships between the hope dimensions of agency thinkings and pathways thinking with depression and anxiety: A meta-analysis. *International Journal of Applied Positive Psychology*, 8; 211-255. <https://doi.org/10.1007/s41042-023-00099-1>
38. Zapata, M. A. (2020). Disability affirmation and acceptance predict hope among adults with physical disabilities. *Rehabilitation Psychology*, 65, 291–298. <https://doi.org/10.1037/rep0000364>
39. Whitehead, L.C. (2006). Quest, chaos and restitution: Living with chronic fatigue syndrome/myalgic encephalomyelitis. *Social Science & Medicine*, 62, 2236-2245. <https://doi.org/10.1016/j.socscimed.2005.09.008>.

**Disclaimer/Publisher's Note:** The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.