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Spinal fusion surgery: From relief to insecurity

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KEYWORDS

Pain;

Spinal fusion surgery; Powerlessness;

Decision;

Relief;

Change;

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Identity;

Communication;

Meaning

Abstract *Background:* During their decision-making process patients perceive surgery as a voluntary yet necessary choice. Surgery initiates hope for a life with less pain but also creates a feeling of existential insecurity in terms of fear, isolation and uncertainty.

Aim: The aim of this study was to explore how patients experience their situation from the point of making the decision to undergo spinal fusion surgery to living their everyday life after surgery.

Method: A phenomenological-hermeneutic study design was applied based on the French philosopher Paul Ricoeur's theory of interpretation. Data were collected through observations and semi-structured interviews.

Findings: The recommendation and decision to undergo spinal fusion surgery felt like a turning point for the patients and brought hope of regaining their normal lives, of being a more resourceful parent, partner, friend and colleague with no or less pain. Thus, deciding to undergo surgery created a brief feeling of relief. However, life with back pain had changed the patients' understanding of themselves. Consequently, some patients postoperatively experienced insecurity and a weakened self-image with difficulties creating meaning in their lives.

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Conclusion: Being recommended and undergoing spinal fusion surgery initiates hope for a life with less pain and altered life conditions. At the same time, paradoxically, this creates a feeling of existential insecurity in terms of facing the surgery and the future to come. It is, therefore, important to recognise and include the patients' everyday life experiences concerning how they give (or may not give) meaning to their illness, i.e. their understanding of how it is affecting them. These aspects are essential for the patients' definition and re-definition of themselves and thus crucial to draw upon in the relationship and communication between patient and healthcare professional. © 2016 Elsevier Ltd. All rights reserved.

Editor comments

For many patients who have suffered chronic back pain being offered surgery gives them hope for the future. It also gives them a feeling that their pain is 'validated' and 'respected' by others. Listening to the voices of such patients and trying to interpret their experiences can help healthcare professionals to provide care that is more compassionate and emotionally intelligent. This is also true of engaging with the findings of this study. It illuminates the trajectory of the experiences and feelings of this group of patients to such a degree that it can help professionals to provide care that is more sensitive to back pain sufferers' needs for effective psychological care both before and after the surgery. This demonstrates, yet again, the immense value of qualitative research such as this.

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Background

Back pain is described as exclusively 'malefic' and powerfully destructive to the physical and psychological well-being of the individual and their family (Azoulay et al., 2005; Damsgaard et al., 2015, 2016; Smith and Osborn, 2015). Back pain ranks amongst the costliest conditions worldwide (The Pain Proposal Steering Committee, 2010) and, according to a report from the National Institute of Public Health in Denmark, the public expense as a consequence of problems with the lower back amounts to as much as 16.8 billion per year (Koch et al., 2011). It is, therefore, in the interest of both patients and society to ensure that patients with back pain are being treated and rehabilitated as effectively as possible.

Several international studies focusing on patients treated surgically indicate that 15-40% of those undergoing spinal fusion cannot expect to improve significantly (Block et al., 2003; Christensen et al., 2003). Studies from the USA show that patients will experience less pain after the surgery, but most continue to have residual pain and physical impairments (Trief et al., 2006). When receiving information on the inconclusive effect of surgery patients need to decide whether to have surgery or not. A study exploring experiences during the decision-making process showed that the operation is perceived as a voluntary yet necessary choice. Many patients draw the conclusion that they cannot change the fact of illness and have to accept surgical treatment because the ultimate goal for them is to stop the pain (Lin et al., 2012).

Deciding to undergo surgery initiates hope for a life with less pain but at the same time creates a feeling of existential insecurity in terms of fearing the surgery and the future to come (Papaioannou et al., 2009). Choosing surgery is linked with many psychosocial challenges as found in a study showing that *preoperative* experiences, characterised by fear, isolation and uncertainty, exert significant influence on patients (Worster and Holmes, 2008).

Many patients have been living with chronic back pain for years. The pain related challenges are diverse and continue to affect their lives after discharge (Berg et al., 2013; Cain et al., 2012). When confronted with a chronic illness patients move through a complex trajectory that involves an "extraordinary" phase of turmoil and distress (Kralik, 2002). However, some patients may make the transition towards an "ordinary" phase that involves incorporating chronic illness into their lives (Kralik, 2002). Life after discharge can be characterised as a transition from overcoming the pain and the operation to being on course hoping for recovery in a changed, but perhaps not fully recovered, body (Norlyk and Harder, 2011).

It is, therefore, not a surprise that being a patient with back pain can be so chaotic and traumatic that it can even develop into actual depression (Arts et al., 2012; Block, 2009; Falvinga et al., 2012; McIntosh and Adams, 2011; Moore, 2010; Nickinson et al., 2009). This is supported by a study from the Netherlands which found that 30% of patients undergoing spinal fusion surgery experience symptoms of anxiety and depression both before and after surgery (Arts et al., 2012).

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As shown above, many patients undergoing spinal fusion surgery have persistent physical and psychosocial problems both before and after discharge. However, there is a lack of knowledge when it comes to identifying how the patient's lifeworld is affected. Exploring this is crucial in being able to recognise and address this in healthcare professionals' interaction and communication with patients and supporting them throughout the process.

Aim

The aim of this study was to explore how patients experience their situation from the point of making the decision to undergo spinal fusion surgery to living everyday life after surgery.

Methods

Design

This qualitative study employed semi-structured interviews and observations. The analysis and interpretation applied Paul Ricoeur's phenomenological-hermeneutic theory of interpretation (Ricoeur, 1979, 2002).

Participants and data collection

Regardless of the exact surgical procedure, all patients undergoing spinal fusion surgery at an Elective Surgery Centre at a Danish Regional Hospital were consecutively included. Ten patients (Table 1) between the ages of 48 and 82 years each took part in two interviews. To ensure that the patients remembered and had the possibility of reflecting upon their experiences concerning their hospitalisation – the first interview took place 2–3 days after surgery allowing them to speak freely about how they experienced their illness trajectory including the interac-

tion with the healthcare system. The second interview took place approximately two months after surgery and was initiated to get an even deeper understanding of what was important to the patients. Transcripts were read and reread several times to identify important issues to follow up on revealing the decision and recommendation of the surgery as a crucial moment for the patients. In this way the second interview allowed the participants to elaborate on issues that had emerged during the first interview.

To supplement the interviews the researcher observed the interaction between the patients and the healthcare professionals, i.e. the communication at the outpatient clinic, in the wards, the operating room, the recovery room, the hospital hotel and at information meetings.

The interview questions were open-ended, allowing the participants to speak freely. Based on observations and literature about patients with back pain, the researchers developed some overall and broad themes concerning patients' experiences living with back pain and their interaction with the healthcare system. The second interview included themes about the patients' experiences of the decision to undergo surgery and how they experienced life after surgery. The interviews were conducted between August 2013 and December 2013, lasted between 60 and 90 minutes and were subsequently transcribed verbatim.

Ethical considerations

All patients were informed both verbally and in writing about the purpose of the project. They were assured that participation was voluntary, that they would be able to withdraw from the project at any time and that all data would be made anonymous (Declaration of Helsinki, 1964). The ethical guidelines of the Northern Nurses' Federation were respected throughout the study (Northern Nurses' Federation, 2003).

Table 1	Characteristics of the patients.					
Patient	Gender	Age	Social status	Pain duration		
A	Woman	48	Factory worker	No precise data on onset and duration of pain.		
В	Woman	82	Domestic helper (retired)	Overall, the reported experiences of suffering		
С	Woman	60	Nurse	from pain spanned from one year to most of the		
D	Male	74	Baker, driver (retired)	patients' lives.		
Ε	Male	59	Carpenter			
F	Male	75	Driver of construction vehicle (retired)			
G	Male	64	Road worker			
Н	Woman	67	Postman			
1	Woman	75	Shop owner (retired)			
J	Woman	53	Social and healthcare assistant			

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Table 2	Example of	the analysis process	s - from quote to theme.
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Meaning units/quotations "What is said"

Units of significance "What the text speaks about"

Themes and sub-themes

A feeling of hope and relief

"And then I come down here. A whole new world opened up for me. Here were people who knew how I felt. I had really needed someone to say; we know exactly what you mean. It was a miracle. He said: 'I have read about everything you've been through.' It was like something fell into place for me. I became a whole person again. Everything was initiated immediately - everything was planned".

Prior to making the decision to undergo spinal fusion surgery, the patients had experienced incidents with colleagues, family members and healthcare professionals, where they had felt subjected to insinuating remarks as well as feeling under pain. These incidents had triggered experiences of powerlessness and of not being acknowledged as individuals

• Life-changes - a turning point Hope for recovery

"It's as if I've been living in a bubble for years and when things calmed down. . . I suddenly had so much time on my hands that I scared myself because now I had to think. A kind of sadness came over me. My back had completely defined my life. How do I move on from here?"

suspicion of exaggerating their back - they had become insecure. Therefore, being met by healthcare professionals who recommended surgery became a turning point for them. It meant that the patients felt relief and experienced renewed hope of a better future with less pain. The back pain had had such a fundamental influence on the patients' lives that it had almost come to define them as people. This meant that after discharge, many patients paradoxically experienced a sense of emptiness and insecurity. The surgery influenced the patients' self-image which had been defined through a life with back pain.

Less pain but feeling empty and insecure

- Feeling insecure
- · A feeling of emptiness and alienation

According to Danish law, approval from the Regional Committee for Medical Research was not required because of the non-biomedical character of the study. Approval from the Danish Data Protection Agency was obtained (Journal number: 1-16-02-65-13) and their requirements for safe data storage were adhered to.

Data analysis and interpretation

The data analysis and interpretation consisted of a three-level process (Table 2): naïve reading, structural analysis and comprehensive understanding (Ricoeur, 1979). In the naïve reading, transcripts from interviews were read and reread to achieve an overall initial understanding of the text, i.e. an early interpretation. In the structural analysis, the early interpretation of the naïve reading was substantiated by a closer examination of the data. This was carried out by gathering sections of texts in larger meaning units consisting of sections of text from across the entire data set. The meaning of the sections of text was then further explained allowing the researchers to achieve a deeper understanding of 'what the data are saying' to 'what the text actually speaks about' in terms of emerging themes and subthemes (Gulddal and Møller, 1999; Ricoeur, 1979, 2002). At the level of comprehensive understanding, the analysed themes were interpreted and discussed in the light of relevant theories and existing research (Rendtorff, 2000; Ricoeur, 2002). To understand and explain what is going on from the patients' perspectives we draw on the theory of transitions by nurse and sociologist Afaf Meleis and on the ideas of alienation, directedness and meaningful social relations by sociologist Hartmut Rosa. This theoretical abstraction leads to a new explanatory position in the text and, thus, new insights (Ricoeur, 1979).

Findings

Naïve reading

The naïve reading of the texts showed that the patients' lives with back pain before the operation were characterised by phenomena such as insecurity and Spinal fusion surgery 5

powerlessness but also by hope. The back pain had had such a profound impact on their lives that, after being discharged, many of the patients experienced difficulty creating a new meaningful life despite the fact that they now had less pain. They experienced a sense of emptiness and they had become insecure.

Structural analysis

According to the aim, two main themes were identified in the structural analysis. In connection with "the decision to undergo spinal fusion surgery", the theme: A feeling of hope and relief emerged. In connection with "living in everyday life after surgery" the theme: Less pain but feeling empty and insecure emerged.

A feeling of hope and relief

Based on the patients' narratives it appears that they, prior to their decision to undergo spinal fusion surgery, had experienced incidents with colleagues, family and healthcare professionals where they had felt subjected to insinuating remarks as well as feeling under suspicion of exaggerating their back pain. These incidents had triggered experiences of powerlessness and of not being acknowledged as individuals; they had become insecure. Therefore, having doctors recommend surgery had been a turning point for them. Even though the patients had been informed that the operation was not always successful and although some patients had experienced doubt after having met fellow patients (who revealed less successful courses of surgery) the offer of surgery meant that the patients felt understood and experienced renewed hope for a better future with less pain.

The patients linked surgery with their back pain now being acknowledged and that the doctors knew what had to be done. Based on the patients' narratives it appears that healthcare professionals made a great effort to show that the surgery procedures were under control. They handed out information and questionnaires and showed resourcefulness; for example by sending the patients to information meetings and to other healthcare professionals as preparation for surgery. Three days after the surgery, patient A said the following:

"And then I come down here. A whole new world opened up for me. Here were people who knew how I felt. I had really needed someone to say; we know exactly what you mean. It was a miracle. He said: 'I have read about everything you've been through.' It was like something fell into place for me. I became a whole person again. Everything was initiated immediately – everything was planned".

Experiences like these made the patients feel that the healthcare professionals understood them and could help them with their back pain. Several patients explained how conversations about the surgery had turned into intense moments during which they had experienced it as if the hectic bustle in the hospital had vanished for a moment. Three days after surgery, patient H said:

"I got the feeling of respect. He believed me. We were in our own bubble – our own rhythm without disturbance. He believed me and took his time with me. I left with a sense of hope instead of the feeling of having wasted anyone's time".

The decision to undergo surgery became pivotal and synonymous with hope for a future with less pain. The patients explained how it had lifted a heavy burden from them. While, for many years, they had taken it "one day at a time", as one of them put it, they now experienced being able to see opportunities for a brighter future. They hoped that they would be able to resume their lives as they were before their back problems began.

The decision to undergo surgery also led to the patients dreaming of once again being able to participate in the everyday life of their families, engage in friendships and become an active member of their workplace. In other words, they felt that they stood at a crossroad and would now have a better life.

Less pain but feeling empty and insecure

Although some patients were not completely pain free after the surgery, many of them talked about how they had been given "a brand new life". They found that once again they could move more freely after years of debilitating pain. However, even though the operation had been successful and freed them of most of their pain, several patients found that the sadness returned. They said that although the healthcare professionals had dealt with their back problems, the back pain had been so influential that it had become the focal point in their lives. Because of this they needed help to create an understanding of themselves that was not defined by a life of pain. One patient explained how, after being discharged, she had expected to feel happy and relieved but instead felt sad. She described how over many years the back pain had been a constant companion and how, after the surgery, she experienced that life had become empty. As a consequence she and several of the other patients had found it difficult to move on with their lives.

In other words, life with a changed body entailed changes for the patients. The back pain was no longer the all-encompassing feeling in their bodies

which meant that the opportunity to be able to control everyday life had opened up for them. However, several patients had lived with pain for many years and now had to adapt to expectations (not only from themselves but also from family and colleagues) of returning to everyday life. Instead of feeling relief and joy, many patients experienced a new, unpredictable and unknown everyday life; they were unsure of whether they had recovered or not. Consequently it was important for them to have the opportunity to express themselves about these kinds of existential aspects on "their own terms" (as one of the patients put it) and not based on what healthcare professionals deemed relevant. Surgery was thus not synonymous with a life without problems, but could lead to new insecurities concerning their identity and their new life situation. It was, for example, expressed this way two months after discharge by patient D:

"It's as if I've been living in a bubble for years and when things calmed down. . . I suddenly had so much time on my hands that I scared myself because now I had to think. A kind of sadness came over me. My back had completely defined my life. How do I move on from here?"

Several patients felt ungrateful for not being happy now that the attempt to reduce their back pain had finally been successful. The surgery and the pain had changed the patients' perception of themselves. In other words, they experienced feeling insecure about who they were. For many patients the status quo was, therefore, that through the surgery they had obtained acknowledgement of their back pain but were left with an insecure self-image. The initial sense of relief had turned into insecurities. Two months after discharge, patient C said:

"And then I had the surgery – yes well, I actually don't know whether it has quite sunk in yet. I ought to have been overjoyed, but instead I felt empty. It's like a whole new chapter starts now. There are more demands from my family, and my workplace also wants to know what's going on. Now, I have to start something new, and I don't have a lot of pain anymore, but for some reason, I don't feel that kind of joy".

There seemed to be specific worries attached to a certain age; for example, some patients worried about finances and how to get back to work. Another concern was how their children were affected and some would be troubled with not being able to babysit their grandchildren because of too much pain. However, no matter the reason, the patients' concerns were all rooted in fundamental human challenges concerning living everyday life as a patient

with back pain and therefore of an overall existential kind with no age related to it.

Comprehensive understanding

A feeling of hope and relief

Prior to the surgery, life with back pain had been characterised by feelings of powerlessness and insecurity. But the recommendation and decision to undergo surgery created feelings of hope and relief within the patients. The patients experienced the decision of surgery as an acknowledgement of the pain.

According to Afaf Meleis, health is not merely being physically well. Meaningful experiences together with hopes for the future are an important element of it. It is essential to feel that there is an understandable and meaningful connection between important events in life (Meleis, 2010; Meleis et al., 2000). Hence, for Meleis, going through a period of transition undergoing surgery and re-establishing stability and normality in life is crucial. Accordingly, it can be understood that the recommendation of surgery was experienced by the patients as a turning point in life from going through a long and tiring period with feelings of powerlessness to re-gaining stability, meaningfulness and renewed hope for a better life and less pain.

For Meleis, the importance of understanding a transition from the perspective of those who are experiencing it is crucial in relation to recovery (Meleis, 2010). Therefore, healthcare professionals' awareness of the meaning of a transition is essential. According to Meleis, feelings of connectedness can be created in the relationship with healthcare professionals who can answer questions and with whom patients can feel comfortable within the relationship (Meleis et al., 2000). Such relationships can, according to Meleis, provide patients with feelings of hopefulness that in themselves are therapeutically effective. Conversely, when support is lacking or communication with professional staff is less optimal, patients in transition can experience feelings of powerlessness, confusion, frustration and conflict (Meleis, 2010). Consequently, the presence of a supportive preceptor is identified as an important resource during transitions. Preceptors facilitate transition; an experienced healthcare professional can smooth a transition by being a guide and sounding board. For Meleis, it is important to include the cultural context (the patients' everyday life) in the understanding of their transition experiences. Accordingly, it can be understood that the 'journey' from having lived everyday life with great pain and feeling mistrusted to being recommended surgery,

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to some patients understandably can be synonymous with being respected. They are thereby acknowledged as a human being, initiating feelings of being relieved and having hope for the future.

Less pain but feeling empty and insecure - the constitution of identity

The emerging feelings of hope and relief after discharge were paradoxically for some patients being replaced with feelings of sadness, emptiness and insecurity. They had come to doubt who they were. This can be seen in the light of Hartmut Rosa's ideas of what constitutes our identity (Rosa, 2010).

In line with Meleis' thoughts of connectedness, Rosa (2010) argues that exhaustion of the self happens when the changes and dynamics in one's individual life or in the social world are no longer experienced as elements in a meaningful and directed chain of developments, i.e. as elements of 'progress', but rather as directionless and 'frantic' change. Our study found that some patients were able to come to terms with their new lives saying 'this is as good as it gets'. For several patients, however, pain had become almost all-consuming. Rosa (2010) facilitates the understanding that the patients were disorientated; feeling sad, empty and insecure without being able to create meaning in their lives. It can be understood that the patients hoped for a new life by being able to re-establish their role as a cured parent, partner and colleague. Their experiences, however, had been so overwhelming that there had developed a kind of familiarity in relation to the back pain, i.e. they had come to identify themselves as 'patients'.

According to Rosa (2010), experiences are crucial in the formation of our identity. Consequently, it can be understood that the patients' experiences of mistrust and powerlessness resonated their self-image; their back pain had characterised their lives for many years whereas life after surgery was unpredictable, unknown and uncertain. According to Rosa (2010), it can be said that the patients' pain, i.e. their illness experiences, had become a constituent element to their identity. In relation to the creation of our identity it can be said that:

"If it is 'the importance of what we care about' that constitutes our identity, the loss of such a sense, of a persistent hierarchy of relevance and of direction, cannot but lead to a distortion in the relationship towards oneself." (Frankfurt, 1988; Rosa, 2010, p. 97)

In keeping with Rosa (2010), 'a good life' is hence connected with what we care about; i.e. meaning-

ful social relations, meaningful experiences creating our identity. Such experiences consist of meaningful existential and emotional experiences which unfold in and are linked with our everyday lives. According to Rosa (2010) this is, indeed, the counterbalance to the fact that patients feel sad, alienated, empty and insecure even if they have less pain.

Discussion

As shown, several patients experienced brief hope and relief in relation to being recommended and deciding to undergo surgery. Paradoxically, for some patients these feelings were overtaken by feelings of sadness, emptiness and insecurity after discharge, i.e. doubting who they were.

In line with our findings, a study by Hammer et al. (2009, p. 550) showed that hope gives meaning to life; that is 'having a zest for life anticipating future possibilities such as . . . expecting positive results, being cured or simply receiving a hopeful message from the physician'. In addition to the findings of our study, Kralik et al. (2002) found that chronic illness involves finding ways to live daily life by creating order from the disruption and disorder imposed by and associated with the pain; i.e. to Kralik this involves a need for both structure and process. However, Kralik also argues that healthcare professionals inherently focus on creating structures in their approach to patients whereby patients are positioned as passive subjects simply absorbing information. Consequently, Kralik et al.'s (2002, p. 265) study emphasises that managing life with chronic illness is more than 'doing' and should be entwined with a sense of 'being' and 'becoming'; i.e. engaging in a dynamic, active process of learning, trialling and exploring experiences and boundaries in everyday life. Similar to the findings of our study, this is indeed a process that involves identifying one's existential, psychological and physical responses to illness; constantly planning and managing daily life as a means of creating order. From this perspective it is important for the healthcare professionals to recognise the context (the patient's lifeworld) in which patients give (or may not give) meaning to illness and to be able to communicate about it.

In concordance with these findings, a study by Noe et al. (2014) explored expectations, worries and wishes in relation to challenges before returning home after initial hospital rehabilitation for traumatic spinal cord injury. Even though their study focuses on a different patient group than included in our study, its findings are still relevant. Categories of barriers and problems were identified

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including facing uncertainty when leaving one's peers; hoping to get back to work and a safe economy; experiencing understanding from the community and relying on resilience of significant others (Noe et al., 2014). Their study showed that there is a need for healthcare professionals to involve the patients' close relations. In accordance with our findings they found that to promote a meaningful life on new terms it is crucial that healthcare professionals initiate dialogue with patients and their families on how the illness may impact on their everyday life.

Limitations of the study

According to Ricoeur (1976) there is no absolute way to interpret a text; 'an interpretation must not only be probable, but more probable than another interpretation' (p. 76). From this perspective 'validation' was enhanced by showing transparency throughout the analysis process. Descriptions of the interpretation process were presented to illustrate the trustworthiness of the findings. Regarding this, one should also understand the structural analysis as a form of validation (Ricoeur, 1976). In addition, some might argue that a sample of 10 patients is too small. However, in qualitative research, it is stated that analytical generalisation is a possibility, meaning that the results of a study can be considered 'indicative' or transferrable in relation to other similar situations or settings (Kvale, 1997).

Conclusion and implications for practice

Being recommended and deciding to undergo spinal fusion surgery initiates hope for a life with less pain but at the same time paradoxically creates a feeling of existential insecurity in terms of facing the future to come. It is important to recognise and thereby include the impact of patients' everyday life experiences on how they give (or may not give) meaning to their illness and understanding of how this is affecting them. These aspects are essential for patients' definition and re-definition of themselves and it is crucial to draw upon these during communication between the patient and healthcare professional. Taking into consideration that a considerable number of patients suffer from anxiety and depression both before and after surgery it is crucial to help them re-gain meaning in life and to focus on their lifeworlds to find out what they care about and what is important to them.

Conflict of interest statement

There are no conflicts of interest for the authors of this manuscript.

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