JCN Journal of Clinical Nursing

Journal of Clinical Nursing

ORIGINAL ARTICLE

# Patient readmission for orthopaedic surgical site infection: an hermeneutic phenomenological approach

Lilian Machado Torres, Ruth Natalia Teresa Turrini and Miriam Aparecida Barbosa Merighi

**Aim and objective.** To explore the individual experience of being readmitted for surgical site infection resulting from orthopaedic surgery.

**Background.** Surgical site infection has been a cause of concern worldwide and contributes to the greatest number of hospital readmission occurrences. Health professionals must understand the meaning of these readmissions for the individual, as an understanding of these exclusive experiences improves the quality of surgical care.

**Design.** Qualitative research based on the existential phenomenology of Martin Heidegger.

**Method.** Eleven individuals who were readmitted because of surgical site infection participated in the study. The testimonials were obtained over an 11-month period in 2014–2015 based on the following leading question: What has it been like for you to be readmitted because of orthopaedic surgical site infection? The phenomenological analysis identified the sentiment units of the testimonials and their interrelation, revealing the meanings.

**Results.** The revealed contents were fear and insecurity of the unknown, frustration, and the sense of time passing them by and being unable to live their lives. The individuals felt neglected, and they experienced their social relationality as impaired and sometimes approaching a breakdown. The patients connected with God as an attempt to avoid complications and death.

**Conclusion.** We urge healthcare professionals to deepen their knowledge of the dimensions of care by developing competencies that consider the subjectivity of experiences of the health–disease process. When the only listening that takes place is qualified listening, the professional's attitudes compromise his or her ability to provide true care, which transcends the knowledge of doing and reaches the knowledge of doing with sensitivity.

**Relevance to clinical practice.** Nursing care requires an attitude that considers the patient as more than a carrier of illness and should not be limited to what is described and prescribed, although the latter cannot be excluded in an organisational point of view.

**What does this paper contribute to the wider global clinical community?**

- Professionals should develop competencies for searching for what is not shown in terms of patients' experiences with the health–disease process. Such competencies transcend 'knowing how to do' to achieve 'knowing how to do with sensitivity'.
- Permanent pedagogic and education projects should contemplate subjectivity, even in a transversal fashion through other disciplines, and depart from the biomedical model that focuses solely on the disease. Disciplines that include a philosophical component in healthcare training, especially a Heideggerian approach, will help to develop professionals with empathy, that is, those who in addition to looking and hearing will be able to see and listen, allowing patients to be themselves in their singularity and plenitude.
- The need to conduct investigations that highlight the perspectives of the individual is emphasised. Such an approach will contribute to a better understanding of individual needs and consequently improve the quality of care.

**Authors:** *Lilian Machado Torres*, PhD, RN, Assistant Professor, Medical Sciences Faculty, School of Nursing, Belo Horizonte, MG; *Ruth Natalia Teresa Turrini*, PhD, RN, Associate Professor, Department of Medical-Surgical Nursing, School of Nursing, University of São Paulo, São Paulo, SP; *Miriam Aparecida Barbosa Merighi*, PhD, RN, Full Professor, Department of Maternal, Children and Psychiatric, School of Nursing, University of São Paulo, São Paulo, SP, Brazil

**Correspondence:** Lilian Machado Torres, Assistant Professor, Medical Sciences Faculty, School of Nursing, Al. Ezequiel Dias, 275, Centro, CEP 30, 130-110 Belo Horizonte, MG, Brazil. Telephone: +(55)(31)999710806.

**E-mail:** lilian.torres@superig.com.br

**Key words:** infection control, nursing, patients' experience, phenomenology, surgical nursing

**Accepted for publication:** 25 December 2016

## Introduction

Healthcare-associated infections are considered a public health problem, and they drive institutions to undertake effective measures for prevention and control (Giroti & Garanhami 2015). One of the locations with the highest incidence of infections is the surgical site (Despaigne Alba *et al.* 2013); in Brazil, the incidence of surgical site infection (SSIs) is 14–16% according to the National Health Surveillance Agency (2009).

Factors contributing to the occurrence of SSIs are grouped into intrinsic or related to individuals, such as comorbidities, and extrinsic, or modifiable factors, including surgical techniques, preparation of the patient's skin and surgical time (Harrop *et al.* 2012).

In orthopaedics, the majority of SSIs are associated with the use of implants, and some studies have raised the possibility of a progressive increase in the incidence of such occurrences (Contreras & Sepúlveda 2014). SSIs are severe complications with economic, clinical and social impacts (Campoccia *et al.* 2013), and its incidence has revealed rates that have been rapidly increasing annually (Gutowski *et al.* 2016). They almost always indicate a failure in the treatment (Romanò *et al.* 2013) that leads to readmission of the individual with SSI.

A study on a series of 10,158 patients undergoing orthopaedic surgery revealed that 2·2% of them returned to the hospital for reasons directly related to the first surgical procedure, and among them, 21·4% for SSIs (Pujol *et al.* 2015).

Considering the data presented for the orthopaedic specialty, readmissions by SSI were considered a quality measure in research that analysed individuals with a higher probability of readmissions after 6414 primary total hip arthroplasties between 2006–2010 (Saucedo *et al.* 2014). However, readmissions for SSI that result in new surgeries are underestimated, and the majority of cases are preventable, being a relevant indicator in assessing quality of care and associated risk management (Pujol *et al.* 2015).

## Background

Despite the limited attention dedicated to hospital readmissions (Kirby *et al.* 2010), a study on possible associated factors pointed to infection as the main cause of readmission after six different procedures. Specifically, in cases of knee and hip arthroplasty, SSI was the main reason for readmission (18·8%) (Merkow *et al.* 2015).

In terms of global impacts, SSIs are considered a burden for healthcare systems because of the associated morbidity, mortality (Leaper *et al.* 2013) and its relatively high cost (Gutowski *et al.* 2016). Readmissions due to SSIs cost more than double when compared to readmissions due to other reasons, such as mechanical failure (Gutowski *et al.* 2016).

The measures to prevent SSI are well established, and professionals should know and implement them while providing health care (Harrop *et al.* 2012). Specific protocols for orthopaedic units include actions regarding internal procedures and strategies for epidemiological surveillance (Rãutia & Nemet 2015).

However, a literature review on the characteristics of studies that addressed readmissions for SSI after orthopaedic surgeries did not find studies that assessed the repercussions for affected individuals (Torres *et al.* 2015). Pujol *et al.* (2015) highlight the importance of investigating revision surgery and its consequences at the global level.

From the individual's perspective, being in the hospital represents a major disruption in their routine (Santos & Carlo 2013), even with scientific and technological advances in health recovery (Sanches *et al.* 2013). In this context, the associated physical frailty and emotional vulnerability are potentialised as a problem that the individual must experience in the presence of strangers.

For example, few studies have demonstrated experiences related to being in a hospital due to SSI, regardless of being the first hospitalisation in people's lives or subsequent occurrences. However, admissions or readmissions are unique experiences that do not repeat in the same manner. The results of a qualitative study that analysed 14 testimonials from individuals who developed SSI detected significant pain, isolation, insecurity and negative economic, social, physical and emotional impacts, some of which were long-standing (Andersson *et al.* 2010). Seventeen patients who underwent surgery in three hospitals in the United Kingdom reported experience of despair and a desire to die when describing how SSI affected their lives and the lives of their family members (Tanner *et al.* 2013).

Considering this as a research gap, this study aimed to explore the experiences of individuals subjected to orthopaedic surgical procedures who were readmitted because of

SSI based on the following questions: What is it like to be readmitted for SSI? How is the readmission for SSI understood from the personal, family and work perspective? What personal and social effects related to readmission for SSI does the individual experience?

At the international level, it is relevant for integral care policies to consider this history dimension in efforts to improve the quality of care. Such an expansion with a focus on the provision of care that directs healthcare provision and education and that considers the need to invest in the permanent development of nurses in various contexts and specialties is encouraged.

## The study

### Aim

To explore the individual experience of being readmitted for SSI resulting from orthopaedic surgery.

### Design

Qualitative research with a phenomenological focus based on Martin Heidegger's theoretical framework. This framework has shown to be consistent with and adequate for nursing research because of its humanistic principles and study domains, which involve the theory and practice of care as an attempt to understand how phenomena impact the health of individuals, their families and the community (Paula *et al.* 2012).

A phenomenon, according to Heidegger (2011), must be understood as something that manifests in itself and that constitutes one's way of being; thus, it is understood as an encounter and not as an outward projection. First, this understanding is achieved through the factual dimension, which in our case relates to the testimonials themselves. Next, it involves hermeneutics, which through interpreting and seeking meanings reveals the uncovered, which emerges as a phenomenon (Paula *et al.* 2012). Heidegger's hermeneutics is a method of interpreting reality that leads to comprehension (Almeida 2014). Using this process, understanding the human being who experiences a readmission for SSI after being subjected to an orthopaedic surgical procedure becomes a practice of care. Because humans are not detachable from the world (Roehe & Dutra 2014), experience affects the relationality between this individual and the surrounding readmission environment. The methodology of this study enabled an understanding of the study's subject: the readmission for SSI after an orthopaedic surgical procedure, from a subjective point of view.

### Participants

The study included 11 individuals who underwent orthopaedic surgery in a Brazilian public hospital and were readmitted for SSI during an 11-month period in 2014–2015. The following inclusion criteria were used: individuals older than 18 years of age who returned to the hospital with an indication for readmission because of SSI and who underwent their first surgical intervention at the same institution. The starting point for subject selection was the SSI report from the Hospital Infection Control Committee, which follows the international criteria of the National Healthcare Safety Network (NHSN) (2013). In this health institution, there are no data on readmission for any cause. Data on the first admission, surgical intervention, SSI and readmission were verified by the researcher in the hospital information system. After the SSI diagnosis and the fulfilment of the readmission criteria for SSI were confirmed, the individual was contacted at the admission unit for the necessary introductions and the first contact related to the study. Those who agreed to participate received a consent form, which contained authorisation for audio-recording and described the study motivation, objectives and procedures. After the consent document was signed, individual meetings to record testimonials were scheduled; the meetings took place at the participant's bedside. Only the researcher and the participant were present at the meetings. The study participants were identified with the letter 'P' followed by a personal identification number. The number of interviewees was not established prior to the study, and the collection of statements was closed when theoretical data saturation occurred, or when the interaction between participant and researcher no longer provided elements to sustain or deepen theorising of the subject (Fontanella *et al.* 2011). This criterion was evaluated by the researchers as a group.

### Data collection

The data were collected through face-to-face nonstructured interviews conducted by the first author, who is a nurse with previous experience in surgical centres and with infection control. A total of 12 interviews were conducted, and the interviews were not repeated. However, one interview was discarded because the interviewee withdrew consent and did not present the reasons why they made this decision. To reveal the phenomenon of readmission for SSI from a perspective congruent with the methodological choice of Existential Phenomenology, the following guiding question was used: *What is it like for you to be readmitted because of an infection in your surgery site?* The question

was tested with two individuals to assess its pertinence, and the testimonials were stored exclusively through recordings. The question should enable a favourable environment for intensifying the participant's verbalisation during the testimonial and encouraging the experiential description of the phenomenon so that meanings are expressed (Paula *et al.* 2014). The duration of the meetings varied from 30–45 minutes and respected the participant's desire for expression related to the topic. After each testimonial, we transcribed the interviews without returning to the participants. We then engaged in repetitive reading of the transcripts to consider the situations that the participant's experienced from multiple angles. The interviews were originally conducted in Portuguese with Brazilian respondents. The responses were then translated into English by a professional translation service.

### Ethical considerations

The study complied with the ethical principles of human subject research and was approved by the Research Ethics Committee of the School of Nursing of the University of São Paulo, Brazil, and the coparticipating institution (Dr. Luisane Maria Falci Vieira – Protocol number 527.293). Among the fundamental ethical aspects, we emphasise that there was nondiscrimination in the selection of the participants, who were not exposed to risks other than discomfort arising from verbalising their experiences, impressions and desires, and that the privacy and confidentiality of the testimonials were ensured. The interviewed individuals did not show or express such discomfort.

### Data analysis

For the organisation and analysis of the meanings contained in the testimonials, we sought to identify the *units of meaning* that were most significant to the participants and aim of the study. This methodology, recommended by a Brazilian researcher who supports a rigorous delimitation of the study theme, facilitates a deep analysis of the meaning of expressions (Josgrilberg 2000). Units of meaning are expressions or phrases that contain a meaning related to the experiences specific to individuals who are readmitted because of SSI. The careful reading of each interview enabled the extraction of units of meaning that were grouped with the units of meaning from other testimonials. Thematic categories were derived from the interrelation of the units, linking the meanings that the individuals revealed. A phenomenological analysis based on Martin Heidegger's framework revealed what was latent or concealed in the experiences.

### Rigour

The methodological rigour included the systematic collection of data from the institutional reports and systems; the respect for the participants' privacy during the interviews, which were conducted exclusively by one of the researchers; the verbatim transcriptions of the testimonials; the identification of the units of meaning; and the categorisation of the discovered meanings. In qualitative research, it is necessary to pay attention to the delimitation of the study object, research issues, strategies and attitudes during data collection and to the choices made during data organisation, analysis and propositions. Empathy, understood as the ability to feel what it would be like to be in another person's situation and circumstance, is also essential for creating an environment favourable to intensifying the experiential description of the study object and encouraging the expression of meanings (Paula *et al.* 2014).

## Results

The 11 participants included six men and five women with an average age of 54 years. Five were retired, two were unemployed, and four were formally employed. Eight were married, two were single, and one was a widow. During the reading of all of the testimonials, the units of meaning were highlighted and grouped according to the following thematic categories, which revealed the readmission phenomenon essence: *Experiencing insecurity and fear*, *experiencing frustration, perceiving that time is passing you by, impaired social relationships, experienced neglect and attachment to God.*

### Experiencing insecurity and fear

Insecurity is embodied in statements about not knowing what could happen:

> I went back to the emergency room and the doctor said: "Oh! Things got complicated." A whole world goes through your mind. The doctor said that the infection is subsiding, but it is hard to believe. You do not see it. It gives you a certain fear about what might happen. (P8)

> I was afraid of everything but mostly of losing my leg. … I do not want to talk anymore. I am sorry, but it bothers me a lot because I am still afraid. (P6)

Not knowing about the future is reflected as uncertainty about what could still happen:

> What can still happen to me? I do not know. It seems that it's getting better, but I am even afraid to look and see if it really is. (P9)

It is like reexperiencing something that I did not know about the first time. It is a feeling of not knowing what to do. I'm apprehensive... let's see what will happen. (P4)

The absence of experts or medical specialties in all care settings when health care is needed causes insecurity:

I had to come to a larger center. I am afraid of going my town, getting there and not finding resources. Will the doctors be able to get rid of this infection that is stuck in my bone? (P1)

Frustrations arise in relation to the (im)possibilities that the participants envision and are associated with the way they perceive the care provided.

### Experiencing frustration

Experiencing the readmission process for SSI results in frustration, grief and fatigue, and the participants associate it with suffering:

I have never imagined having to go back: doctor, hospital, we want distance from everything that can mean pain. One imagines that the hospital means pain, death, and suffering. (P9)

I was feeling fatigued when it started all over again: being admitted again, suffering again, always hoping to get better. (P3)

Frustration appears in response to SSI and readmission and to the time spent on something unexpected:

The word that sums up what we are feeling after 10 months in the hospital is frustration with always being hospitalized. This going to and coming from hospitals... the frustration continues. Perhaps because of the delay in getting here, the lack of concrete answers, and what is more frustrating is that those who live in the country are at the mercy of anything; in my case, "anything" did not solve the problem. (P1)

Time appears in different ways in the reports. Although it is always verbalised in chronological order (days, weeks, months), it is associated with its individual and familiar meaning.

### Perceiving that time is passing one by

The temporal or chronologic dimension has various angles among the interviewees, but it is always associated with what is lost in life, with what is not being carried out:

Only at the end, the doctor said that it would be about six weeks. Oh! Six weeks is not six days. I've been here for three months, and nobody tells me how much longer I will stay. (P9)

The professionals collect material for tests. They have already discontinued the antibiotic for 10 days. And I am still here for two months... Do you know what this is? (P3)

The information about days and weeks does not have the same connotation for the affected individuals that it has for health professionals:

The doctor says it is simple, just a little infection, a few more days and it will be resolved. But when you are admitted for this reason and time passes by... (P11)

I don't know what to say because it was a month that disappeared from my mind. I don't know what to say about this time period, and I am here with no perspective of when I will leave. (P1)

Some of the interviewees live far away from the admitting institution, which evokes experiences such as missing family members and home and a preoccupation with their routine activities.

### Impaired social relationships

In the reports, it was clear that the hospital is not like home for the participants. They have wistful memories of the people, spaces and situations of their daily lives and expressed as experiencing isolation:

This is not our home. I keep remembering my city, family, friends... I miss the folks a lot. (P2)

You would like to be in your own home, with your family. This is not my home. I would like to be lying down on my bed, receiving visitors with my mom's coffee, which is really good, strong, and sweet. You know that family never leaves my mind? (P10)

There is a certain discomfort among interviewees when they perceive that they are a burden to their family members and are altering family dynamics:

Our absence is a sacrifice for our children. Being here complicates things for everyone. (P7)

Now, being here again...I wonder about the house, the people, how they organize things, food, clothes. You cannot focus on here or there. (P8)

Affective life is also impaired, and the participants verbalised the fear of disruptions in their relationships with their spouse and children:

I worry whether I will be able to ride a bicycle again. My girlfriend comes here now because I am hospitalized. We are not seeing each other much. (P10)

The questions I ask are not the same ones my son asks me. The same way I wanted to have him around, he also wanted me over there. There is no way you can stop thinking about the children, about the family… (P1)

Social issues and work activities also stood out in the interviewee statements:

I hope to get out of this situation because I think I am still young, I love life, I really want to enjoy life, I love to dance, walk, travel… (cried). (P4)

Because I am a school teacher, I had many activities, and today there are seven families being fed because seven people substituted for me. That is good, because I must be very good at what I do. (P1)

There were also obvious issues related to experiences about the care (or lack of care) they received.

### Experienced neglect

Experiences of the quality of care and the divergent responses of professionals or institutions to the individual or his/her family caused great disappointment and are defined by a large gap between the care and what is actually experienced:

The doctor discharged me twice with generalized infection… it was the worst part of the treatment. This coming and going was because of a medical error and left me extremely disappointed. My foot became crooked, the implant was removed, and the doctor discharged me with septicemia. (P1)

I was operated on again after three days in the emergency room. My surgery was because of a bad job by a doctor who should not be a doctor, should choose another profession. (P6)

The participants also evaluate the healthcare system in relation to the quality of the service provided. There is a general belief that one cannot expect much from the public service, reinforcing the experience of disappointment and neglect:

How many hospitals will I need to go to for an answer? All they have done is push me from one place to another. Rarely in the public health care network can you find a good infectious disease specialist, and when you do, they are scarce and expensive. (P1)

Complaints surface that the professionals do not acknowledge the patients' symptoms:

I become outraged. I went to the doctor who operated on me and he said, "It is a problem with the muscles". A kind of torture. I went back several times, would get an x-ray, a test, and would tell myself, "there is something wrong"… and now, I am like this. (P4)

It creates the feeling that everything went wrong when the doctor examines you and says "It is simple, just a small infection; a few more days and everything will be resolved". (P11)

The distrust regarding the care being provided leads individuals to question the treatment or instructions – even as they related to taking antibiotics, for example:

A "drain" was going to be placed, but it took too long, and I asked, "Aren't you putting in the drain?" I waited so it wouldn't become too swollen. The doctor said, "We won't put it in." I waited, disoriented. And confusion grows in your mind. (P3)

I was counting the 14 days of antibiotics, but the doctor said, "You don't need to count; we are counting." But I counted anyway. (P5)

Finally, the religiosity demonstrated in the next category expresses the participants' faith in a superior being that sees everything and decides.

### Attachment to God

Faith in God is related to healing and the possibility of going home. It includes the consideration that everything happens according to divine will, including the SSI:

Deep inside, I wait for God. He knows what He does; what is supposed to be will be. God will be around. (P11)

Everybody says it will improve, and we are waiting because this is what everybody wants. To leave cured. In fact, I wanted this since the first time…. I believe in God, and He wanted me to come back. (P9)

There is hope that God will lead the treatment and laboratory tests, will intervene in the results and will enlighten professionals so that drugs will work to cure the SSI that caused the readmission and prevent the patient from leaving:

With faith in God, it won't be long before I leave. I ask God for the strength to get treatment and get out of this situation. I came with the certainty that under God, I would be cured. (P2)

There are still two weeks to finish the antibiotics. I do not know if I will be able to go then, but God willing, everything will be all right. (P7)

I hope from the bottom of my soul that I will get out of here cured! God is good! I very much hope and pray to God to enlighten the doctors, get my treatment right. I want to leave! (P8)

Some doubts and issues are dissipated because of faith and hope in a God who has the power to define, decide, resolve and ultimately to cure:

Oh my God, how is it going to be? I thought I was going to die, but I thought, "God is the only one who can decide," and I was thinking of God, waiting for God. I have faith! (P3)

Actually, I do not know if I am going for surgery again. The doctor told me that he would check if the medication is working. I have faith that I will be healed. (P5)

Finally, readmission for SSI is associated with the possibility of death. Although there is a divine plan, the participants have hope and faith that they will survive:

There was a man in the other room who died of infection. I think it is not my case, but God is with me, and it will not happen. (P8)

Everything will be all right. Hope and faith in God are what make us endure the wait. Even death comes only when God wishes, right? (P5)

These ontological unifications revealed the sense behind their readmission for SSI, according to the patient perspective.

## Discussion

SSI concretises the readmission that again brings the individual in contact with health professionals in the hospital environment. These individuals feel fear and insecurity because they have already faced a similar situation.

The testimonials point to fear in the sense of the possibility of being in danger of death, sequelae, or reduced mobility or independence. Studies on direct and indirect impacts of SSI in orthopaedic surgery, or only related to recovery have shown that individuals anticipate a threat to their ability to participate in routine activities or the need to adapt after orthopaedic surgeries (Rodrigues *et al.* 2012, Nagai *et al.* 2014). Fear implies perceiving what will or may happen through concrete means (Heidegger 2011).

Health professionals identify fear but do not sufficiently value it. In the absence of such reflection, the fear reflects the conception of the one who cares rather than one who is cared for. Consequently, the patient does not have the opportunity to talk about what he/she feels and to have the professional listen what is said, understand its meaning and translate it back, and an opportunity is lost for care providers to amplify their ability to understand the experience of readmission due to SSI.

Those issues add to patients' frustration with healthcare professionals and their competence and with the perceived poor quality of healthcare institutions. A Romanian study that assessed patient satisfaction on SSI associated with health care in an orthopaedic unit found that care providers should be concerned with providing clear and objective information because it directly influences patients' perceptions regarding the health professionals and the healthcare institution (Rãutia & Nemet 2015). An understanding of the course of the disease and of the received care minimises patient frustration about what happened during the readmission. Heidegger (2011) shows that in the absence of a service with desired quality, there is a gap, and what is pending in the healthcare provision is not available.

Readmission status removes the opportunity for individuals to follow and participate in their own care. Heidegger (2011) shows that there is the desire for something that is already understood, a role in determining the way individuals would like to be cared for. Frustration arises from a *possibility-of-being*, which readmission patients perceive as different from what they actually experience.

The illness experience is unique and individual. Such an understanding constitutes a conceptual richness that needs to be internalised by nurses (Queiroz 2015) so that they can better attend to care demands.

The true sense of care presupposes a communication process that enables the individual to participate in the interlocution in a context that follows them and that is not complete without them. Welcoming, care and attention are competencies that need to be developed and, from the patient's perspective, are based on an intersubjective relationship that respects and considers the individual, sharing decisions and listening to reports that demand to be listened to. According to Heidegger (2011), what comprises an individual's *being* only makes sense when, within the *self*, the individual becomes understandable from the perspective of *being*.

One of the issues that justify the improvement of care is the prolonged time of orthopaedic treatments, which imposes a financial burden on the individual and on healthcare institutions (Rodrigues *et al.* 2012, Kapadia *et al.* 2014). American and European studies reported that SSIs in general require readmissions, long recoveries, the increased use of antimicrobials and increased lengths of stay (Harrop *et al.* 2012, Zimmerli & Moser 2012, Nacke *et al.* 2013). However, this chronological time has different meanings for the professionals and the readmitted individuals. The former quantify time without considering its meaning for those who are no longer able to live *how* and *where* they used to.

The participants perceive time passing them by and removing from them the possibility of *being*. They describe and identify spaces in their homes, scents and the activities

of family members; to those who listen and look for what is hidden, such comments point to an 'existence that disappears' because they are readmitted. These memories and references comfort those who need to feel that they belong and are sheltered; they become a form of living 'what cannot be lived' during readmission and are relevant to an understanding of the experience of individuals who remain in hospitals for months.

Given the threat of disruption, patients need to have their absence recognised because their readmission leaves an unoccupied space. In Heidegger (2011), to occupy a place is *being* in this place, and the desire to be close to others may be understood as *being* where humans are never only in themselves, but relating with others and with things.

Surgical procedures must be followed, but a gesture or a look beyond what can be seen and the sharing of care allows the individual to realise that their care provider can give meaning to what they cannot verbalise. Allowing patients to participate requires nurses to judicially evaluate the risks and benefits of each situation (Tobiano *et al.* 2015).

When readmitted patients perceive that they are not welcome to participate in the construction of an intersubjectivity that respects and considers their suffering (2015, Queiroz 2015), they experience neglect from the healthcare institutions, which minimise their history and complaints and demand additional time for treatment, which means less time for the patient to live his or her life. The construction of a dialogue in a relationship requires listening because it allows speaking.

Patients know how they feel and how they are treated, regardless of their technical ability to evaluate the healthcare service (Răutia & Nemet 2015). Health care, specifically of physicians and nurses, shows paths that allow patients facing readmission the necessary autonomy for self-care. Heidegger (2011) defines authentic care as care that establishes a bond between the one who provides care and the one who is cared for. Configuration of the care provided is based on reliability and in the expectation of the responses required from the understanding of those involved (Graham *et al.* 2015).

Confronted with these experiences, the readmitted individual connects to religion and spirituality in the light of the inevitable: the SSI that led to the readmission. Reflection on the relationship between humanity and God has various aspects: proximity, following and divine blessing, including salvation of the soul in the case that death, which is always present, prevails.

To identify the role of spirituality in the context of an illness with some risk of death, Yong *et al.* (2015) analysed their results according to the phenomenological view; they verified that spiritual beliefs gave seriously ill individuals a greater sense of purpose, which helped them make necessary adjustments. Despite this, there is a need for studies that clarify its influence in health and its mechanisms of action (Reinert & Koenig 2013).

The testimonials contributed to an understanding that the work of professionals, especially nurses, should not be limited to what is described and recommended. It is important for nurses in infection prevention control too. The experiences of readmitted individuals included the most intimate and subjective aspects of their current way of being: the desire to have their feelings recognised, to have time to *live* during readmission, to feel like they are welcome, to be working towards autonomy and to be able to organise their relationships with themselves, with others, and with their spirituality.

### Limitations

The study was conducted at a single healthcare institution with a sample of subjects that was relatively small, although adequate for qualitative research. Therefore, the generalisability of the results is constrained, although consistent with previous literature. Considering the search by understanding such experience, there is no intent to universally generalise the study conclusions or to close the investigation. Given the lack of publications on this theme, other studies that cover different aspects of readmission for SSI, both for individuals at risk of this event and for those who provide care, will enhance the results of the present study by continuing in the same direction, that is, promoting true care that liberates the individual (receiving care).

As a global contribution, it should be emphasised that international protocols for SSI may and should consider the experiences of the individual exposed to the unexpected event. Epidemiologic data could consider not only measures related to health and disease but also the more subjective aspects of health problems.

## Conclusion

Research conducted in the light of the existential framework of Martin Heidegger allowed us to understand the experience of individuals subjected to orthopaedic surgical procedures and readmitted for SSI. This experience is unique and personal, and it requires a sensitive view of needs that are not obvious. The work of nurses requires an attitude that considers the individual as more than a bearer of illness. Quality listening allows the speaker to say more

than what is spoken. Viewing all these dimensions demands a professional with reflective training based on the experience of the other to potentialise true care, which is a liberator in an existential dimension.

Given that protocols and guidelines on the prevention and control of SSI are available, it is up to health professionals to develop competencies that include openness, listening and comprehension of experiences beyond the health–disease process to provide better care for those who are readmitted for SSI and to promote care that transcends 'knowing how to do' and achieves 'knowing how to do with sensitivity'.

## Relevance to clinical practice

Nursing care requires an attitude that considers the patient as more than an object or a carrier of illness and should not be limited to what is described and prescribed, although the latter cannot be excluded in an organisational point of view. Quality listening leads health professionals to reflect on caring for someone who, after being readmitted, shares the most intimate and subjective experiences that comprise the self.

Widening the horizon beyond the quantitative aspects of SSI improves the quality of care and contributes to greater attention to prevention and control. Disciplines that include a philosophical component in healthcare training, especially a Heideggerian approach, will help to develop professionals with empathy, that is, those who in addition to looking and hearing will be able to see and listen, allowing patients to be themselves in their singularity and plenitude.

## Funding

This research received no specific financial support from any funding agency in the public, commercial or not-for-profit sectors.

## Contributions

All authors have agreed on the final version and met at least one of the following criteria: substantial contributions to conception and design, acquisition of data or analysis and interpretation of data, and drafting the article or critically revising it for important intellectual content.

## Conflict of interest

No conflict of interest has been declared by the authors.

## References

Almeida FS (2014) Meaning and novelty of the notions of phenomenology and hermeneutics in the thought of Heidegger. *Think-Electronic Journal of FAJE* **5**, 197–207.

Andersson AE, Bergh I, Karlsson J & Nilsson K (2010) Patients' experiences of acquiring a deep surgical site infection: an interview study. *American Journal of Infection Control* **38**, 711–717.

Campoccia D, Montanaro L & Arciola CR (2013) A review of the clinical implications of anti-infective biomaterials and infection-resistant surfaces. *Biomaterials* **34**, 8018–8029.

Contreras JJ & Sepúlveda M (2014) The molecular basis of infections associated to orthopedic implants. *Revista Chilena de Infectologia* **31**, 309–322.

Despaigne Alba I, Rodrígues Fernández Z, Romero García LI, Pascual Bestard M & Ricardo Ramírez JM (2013) Morbidity and mortality from postoperative infections. *Cuban Journal of Surgery* **52**, 13–24.

Fontanella BJB, Luchesi BM, Saidel MGB, Ricas J, Turato EB & Melo DG (2011) Sampling in qualitative research: a proposal for procedures to detect theoretical saturation. *Reports in Public Health* **27**, 388–394.

Giroti SKO & Garanhami ML (2015) Infections related to health care in nurses' education. *Nursing Network Magazine of the Northeast* **16**, 64–71.

Graham B, Green A, James M, Katz J & Swiontkowski M (2015) Measuring patient satisfaction in orthopaedic surgery. *The Journal of Bone & Joint Surgery* **97**, 80–84.

Gutowski CJ, Chen AF & Parvizi J (2016) The incidence and socioeconomic impact of periprosthetic joint infection: United States perspective. In *Periprosthetic Joint Infections: Changing Paradigms* (Kendoff D, Morgan-Jones R & Haddad FS eds). Springer, Philadelphia, PA, USA, Switzerland, pp. 19–28.

Harrop JS, Styliaras JC, Ooi YC, Radcliff KE, Vaccaro AR & Wu C (2012) Contributing factors to surgical site infections. *The Journal of the American Academy of Orthopedic Surgeons* **20**, 94–101.

Heidegger M (2011) *Being and Time*. Translated by Schuback MSC. Universitária São Francisco, Bragança Paulista, São Paulo, Brazil.

Josgrilberg RS (2000) The phenomenological method and the humanities. In *Phenomenology and Analysis of Existing* (Castro DSP, Azar FP & Picciono JD eds). Methodist University of São Paulo, São Paulo, SP, pp. 75–93.

Kapadia BH, McElroy MJ, Issa K, Johnson AJ, Bozic KJ & Mont MA (2014) The economic impact of periprosthetic infections following total knee arthroplasty. *The Journal of Arthroplasty* **29**, 929–932.

Kirby SE, Dennis SM, Jayasinghe UW & Harris MF (2010) Patient related factors in frequent readmissions: the influence of condition, access to services and patient choice. *BioMed Central Health Services Research* **10**, 216.

Leaper D, Tanner J & Kiernan M (2013) Surveillance of surgical site infection: more accurate definitions and intensive recording needed. *The Journal of Hospital Infection* **83**, 83–86.

Merkow RP, Ju MH, Chung JW, Hall BL, Cohen ME, Williams MV, Tsai TC, Ko CY & Bilimoria KY (2015) Underlying reasons associated with hospital readmission following surgery in the United States. *Journal of the American Medical Association* **313**, 483–495.

Nacke E, Ramos N, Stein S, Hutzler L & Bosco JA 3rd (2013) When do readmissions for infection occur after spine and total joint procedures? *Clinical Orthopaedics and Related Research* **471**, 569–573.

Nagai K, Ikutomo H, Yamada M, Tsuboyama T & Masuhara K (2014) Fear of falling during activities of daily living after total hip arthroplasty in Japanese women: a cross-sectional study. *Physiotherapy* **100**, 325–330.

National Health Surveillance Agency (2009) *Surgical Site: National Criteria of Infection Related to Health Care*. Available at: http://www.anvisa.gov.br/servicosaude/manuais/criterios_nacionais_ISC.pdf (accessed 12 November 2015).

National Healthcare Safety Network (NHSN) (2013) *CDC/NHSN Protocol Clarifications*. Available at: http://www.cdc.gov/nhsn/pdfs/pscmanual/17pscnosinfdef_current.pdf (accessed 15 November 2015).

Paula CC, Souza IEO, Cabral IE & Pardoin STM (2012) Analytical movement – Heideggerian hermeneutics: methodological possibility for nursing research. *Acta Paulista de Enfermagem* **25**, 984–989.

Paula CC, Padoin SMM, Terra MG, Souza IEO & Cabral IE (2014) Driving modes of the interview in phenomenological research: experience report. *Brazilian Journal of Nursing* **67**, 468–472.

Pujol N, Merrer J, Lemaire B, Boisrenoult P, Desmoineaux P, Oger P, Lebas C & Beaufils P (2015) Unplanned return to theater: a quality of care and risk management index. *Orthopaedics & Traumatology, Surgery & Research* **101**, 399–403.

Queiroz PJP (2015) Caring: from condition of human existence to professionalised integral care. *Reference - Journal of Nursing* **5**, 139–146.

Rãutia C & Nemet C (2015) The impact of nosocomial infections on orthopedic patients quality of life. *Acta Medica Transilvanica* **20**, 10–12.

Reinert KG & Koenig HG (2013) Re-examining definitions os spirituality in nursing research. *Journal of Advanced Nursing* **69**, 2622–2634.

Rodrigues P, Silva M, Antunes A, Neves N, Oliveira P & Pinto R (2012) Risk factors for infection in total knee arthroplasty. *Portuguese Journal of Orthopedics and Traumatology* **20**, 437–443.

Roehe MV & Dutra E (2014) Dasein, Heidegger's conception of the human being. *Advances in Latin American Psychology* **32**, 105–113.

Romanò CL, Toscano M, Romanò D & Drago L (2013) Antibiofilm agents and implant-related infections in orthopaedics: where we are? *Journal of Chemotherapy* **25**, 67–80.

Sanches ICP, Couto IRR, Abrahão AL & Andrade M (2013) Hospital treatment: right or concession to the hospitalized user? *Science & Collective Health* **18**, 67–76.

Santos CAV & Carlo MMRP (2013) Occupational therapy in the hospital context: an integrative literature review. *Occupational Therapy Notebooks* **21**, 99–107.

Saucedo JM, Marecek GS, Wanke TR, Lee J, Stulberg D & Puri L (2014) Understanding readmission after primary total hip and knee arthroplasty: who's at risk? *The Journal of Arthroplasty* **29**, 256–260.

Tanner J, Padley W, Davey S, Murphy K & Brown B (2013) Patient narratives of surgical site infection: implications for practice. *The Journal of Hospital Infection* **83**, 41–45.

Tobiano G, Bucknall T, Marshall A, Guinane J & Chaboyer W (2015) Nurses' views of patient participation in nursing care. *Journal of Advanced Nursing* **71**, 2741–2752.

Torres LM, Turrini RNT, Merighi MAB & Cruz AG (2015) Readmission from orthopedic surgical site infections: an integrative review. *Journal of School of Nursing - University of São Paulo* **49**, 1008–1015.

Yong WC, Nadarajah SR, Skeath PR & Berger AM (2015) Spirituality in the context of life-threatening illness and life-transforming change. *Palliative and Supportive Care* **13**, 653–660.

Zimmerli W & Moser C (2012) Pathogenesis and treatment concepts of orthopaedic biofilm infections. *Federation of European Microbiological Societies Immunology and Medical Microbiology* **65**, 158–168.