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Patients' Experiences with Cholecystitis and a Cholecystectomy

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Cholecystitis due to gallstones is a major health problem with a growing prevalence (Stinton, Myers, & Shaffer, 2010). Gallstones occur three times more often in women under 50 years of age than in men of the same age; and they also increase in frequency with age (Halpin & Gupta, 2011). Cholecystitis alters patients' daily lives, their ability to participate in usual social activities and the ability to work (Barthelsson, Lützén, Anderberg, & Nordström, 2003). Acute cholecystitis, an inflammation of the gallbladder most commonly due to gallstones, has a mortality rate in the United States of 20% when left untreated (Halpin & Gupta, 2011). Furthermore, healthcare utilization increases dramatically in patients with symptomatic gallstone disease such as cholecystitis, and is associated with multiple re-admissions and increased emergency room visits (Anwar, Ahmed, & Bradpiece, 2008). One of the most common treatments for cholecystitis and symptomatic gallstones is cholecystectomy, the surgical removal of the gallbladder. Little information was found describing the lived experiences of those individuals diagnosed with acute cholecystitis and a resulting cholecystectomy. Therefore, this phenomenological study was planned to gain a deeper understanding of the lived experience of the patient with cholecystitis and the resulting cholecystectomy surgery.

Background

In America, more than 750,000 patients per year undergo cholecystectomy procedures, making this the most commonly performed elective abdominal surgery (Stinton et al., 2010). The rapid progress and development of laparoscopic techniques has dramatically changed surgical approaches with laparoscopic procedures replacing open procedures for cholecystectomy as the best intervention and standard of care in recent years for acute cholecystitis (Wolf, Nijsse, Sokal, Chang, & Berger, 2009). Consequently, recent studies related to surgical procedures for cholecystitis have focused on feasibility of less invasive techniques and the related postoperative outcomes (Balakrishnan et al., 2008) and the differences in patient outcomes depending on outpatient versus inpatient settings (Barthelsson et al., 2003; Barthelsson et al., 2008; Wolf et al., 2009).

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Few studies have been carried out to illuminate the experience of cholecystitis from the patient's perspective. A review reported on patients' quality of life following cholecystectomies with complicated procedures (Carraro, Mazloum, & Bihl, 2011); the outcome indicating that symptomatic patients profited more from surgery than those undergoing elective procedures. Another study reported the results of focus group interviews focusing on factors the patients felt influenced their return to work after the cholecystectomy (Keus, de Vries, Gooszen, & van Laarhoven, 2010). An ethics study reported on the patients' perspectives of the informed decision making process when they consented to have the cholecystectomy surgery (McKneally, Ignagni, Martin, & D'Cruz, 2004). A quantitative study examined the patient's sense of coherence as a predictor of pain and health in cases of cholecystectomy (Barthelsson, Nordström, & Norberg, 2011). An earlier study found that nurses need a better understanding of the postoperative recovery period following an outpatient cholecystectomy (Kleinbeck & Hoffart, 1994). A phenomenological study examined the experience of patients following their cholecystectomy in an ambulatory surgery setting. The study suggested that the patients were not adequately prepared for the perioperative experience and often suffered needlessly after abdominal surgical procedures (Costa, 2001).

Patients with acute cholecystitis present with right upper quadrant or epigastric colic that persists or escalates over 12 to 24 hours and is accompanied by symptoms of malaise, fever, chills, nausea, vomiting, and anorexia (Elwood, 2008). Although some patients undergoing cholecystectomies may be treated in the "outpatient" setting, a significant proportion of patients continue to be admitted as "inpatients" following the procedure. Up to one-quarter of patients having a laparoscopic cholecystectomy procedure will require conversion to an open surgical procedure. Most often, this is due to risks of complications or uncontrolled bleeding (Halpin & Gupta, 2011). Questions concerning the deeper significance of the lived experience of an individual with symptomatic gallstone disease who is experiencing a cholecystectomy as an inpatient still remain unanswered in the literature.

Methods

Research Design and Participant Selection

A phenomenological approach guided this qualitative study designed to better understand patients' cholecystitis and resulting cholecystectomy experiences. One of the tenets of phenomenological research is to study phenomena within its context (Creswell, 2007). Phenomenological research aims to enhance the understanding of human experiences and reveal meanings ascribed to those experiences (Lauterbach, 2007): "Commitment, an intention to care, and informed care become possible" as meaning is understood (Lauterbach, 2007, p. 217).

This study was conducted at a 250 bed hospital in a rural Midwestern region of the United States. Patients were selected through purposeful sampling based upon a preoperative diagnosis of cholecystitis and a scheduled cholecystectomy procedure. All of the patients who were approached gave consent and indicated a willingness to talk openly about their lived experience with this disease. Interviews for this study were conducted preoperatively with patients who were experiencing symptoms of cholecystitis and continuing

postoperatively with those patients who had undergone the surgical cholecystectomy procedure.

The following inclusion criteria were used to determine eligibility for participation in the study: Patients were (a) 18 years of age or older, (b) alert and oriented, and (c) able to speak and understand English. Each patient was a hospitalized patient experiencing symptoms for a medical diagnosis of cholecystitis and scheduled to receive a surgical intervention, a cholecystectomy. Patients excluded from the study were (a) patients who were registered nurses or physicians, (b) patients who had similar or repeated surgical procedures within the past nine months, and (c) patients whose surgery resulted in an extensive surgical intervention, a terminal prognosis, or a non-gallbladder afflicted procedure.

Individual interviews were conducted preoperatively with the inpatients on a medical-surgical unit. The conducted interviews were consistent with the philosophy of phenomenology, “follow *the thing itself* wherever and whenever it appears, while being attentive, conscious, and alert to its appearance or concealment” (Munhall, 2007, p. 151). Multiple interviews with patients allowed the addition of information to thin areas in the data. This is referred to by Morse (2007) as “sampling for saturation” (p. 535). Narratives were analyzed for the patients who experienced cholecystitis pre-operatively and who also experienced a cholecystectomy and were interviewed post- operatively.

Ethical Considerations

An explanation of the study was given to the cholecystectomy patients, inviting participation, explaining the possible benefits, and discussing time commitments for the interviews. Consent to talk with the patients was obtained from the patient and the primary nurse. Consent to participate was also indicated by the patient’s agreement to be interviewed. The patients were told they could stop or withdraw from the interviews at any time. Names of patients and the representative institutions were not reported to protect their privacy. To maintain anonymity of the patients, patient identifiers were removed and interview transcripts were coded as Patient (Pt.) A, B, C, etc. This study was approved by a University Human Subjects Review Board after reviewing the protocol and procedures of this research. All of the patients indicated their willingness to discuss their pre- and post-operative experiences.

Data Collection

Data were collected through face-to-face interviews and careful observation in order to identify the “essence,” or essential meanings, of the patients’ cholecystitis and cholecystectomy experiences. The purpose of phenomenological research is to understand the essence of the experience, in this case, the experience of cholecystitis requiring a cholecystectomy. According to Creswell (2007), phenomenology seeks to describe the essence of the lived experience through the study of several individuals with a shared experience. With this approach, it is the perception of experience that matters, not what actually may have happened in reality (Munhall, 2007).

The interview questions and probes were developed by the researcher. Interviews, based on naturalistic inquiry, ranged from a few minutes to two hours in length, depending upon the patient's condition and individual capacity. Often, two or more interviews were required to reach saturation and to validate previous interview responses. The following are examples of the open-ended interview questions and probes used in the semi-structured interviews with patients:

Please tell me what you are feeling today.

Please describe your feelings about your illness.

Depending on the situation, approximately ten questions and probes were used with each patient. All interviews were recorded to ensure accuracy of understanding and were transcribed verbatim by the researcher. Patients' descriptions of cholecystitis and their surgical experiences were then analyzed for common themes. The narratives were further interpreted to uncover the meanings of the lived experiences.

Data collected from transcribed interviews were included in the analysis when the surgical procedure confirmed a diagnosis of cholecystitis with a subsequent removal of the gallbladder or cholecystectomy. Patients were not included in the study if the surgery resulted in a terminal diagnosis or extensive procedure (such as an abdominal perineal resection) because it was felt that results might indicate different feelings by the patients that didn't reflect that of a typical cholecystectomy.

Data Analysis and Rigor

The retrospective, verbatim responses were read, interpreted, compared, and transformed into themes according to Giorgi's techniques for phenomenological analysis (Munhall, 1994). As recommended by Munhall (2012), a report was written describing the meaning of the analyzed narratives and the implications for practice. The steps used by the investigators are summarized in Table 1. The rigor of this study was determined using the following four criteria: credibility, confirmability, dependability, and transferability (Lincoln & Guba, 1985). The primary researcher personally interviewed the patients in the study. During the data collection and analysis procedures, the researcher adopted a stance of "unknowing" regarding the experience and phenomena, in an attempt to continually try to understand the perspective of the patients (Lauterbach, 2007). As suggested by Lauterbach (2007), this stance was accomplished by the researcher through "bracketing" or clearing her mind of pre-conceived beliefs about the patient's cholecystitis and subsequent cholecystectomy experiences.

Participant Demographics

The patients ranged from 34 to 81 years of age, with an average age of 49 years. Preoperatively, ten patients with cholecystitis were invited for inclusion to the study. The patients included two Native American patients and eight Caucasian patients. Four of the patients were eliminated from postoperative interviews because one respondent had experienced recent prior surgery; two patients experienced a more extensive surgical intervention than just the cholecystectomy procedure; another was diagnosed with a terminal prognosis, and another had required multiple surgeries. In phenomenologic research, sample

size varies depending upon when saturation or the repetition of themes occur and may include as few as two patients (Parse, Coyne & Smith, 1985; Santopinto, 1989).

The post-operative interviews involved six patients who experienced the cholecystectomy procedure. Two of the patients were male and four were female. The numbers of male and female patients closely resemble published incidence rates by gender (Halpin & Gupta, 2011). Five of the patients were Caucasian and one was Native American.

Findings

The following themes describe the patient's feelings toward their cholecystitis and cholecystectomy experiences. The patient's themes indicated they were consumed with feelings of: (a) consumed by discomfort and pain, (b) restless discomfort interrupting sleep, (c) living in uncertainty, (d) longing for return to normalcy, (e) feelings of vulnerability. Postoperatively, these patients were "expecting the unexpected". In other words, the patients expected a more rapid return back to their normal health and routines than actually occurred.

Consumed by discomfort and pain

When an individual is consumed by discomfort and pain, every area of one's life is disrupted. The pain resulting from cholecystitis was described by the patients as a "terrible" pain that was unrelenting. Another patient reported intermittent pain that was "on and off" for two years and was not always "taken seriously." Consistent with findings from other studies of patients in pain (Ferrell, Rhiner, Cohen, & Grant, 1991), patients in this study used a wide variety of adjectives to describe their preoperative pain, such as: "hurt, excruciating, sharp, a catch, umbilical, terrible, on and off, and sore".

At some point, the pain became unrelenting to the point of necessitating a cholecystectomy procedure for all of the patients. Metaphors were commonly used to illustrate the patients' postoperative feelings. These are listed as follows:

> …it's sharp, shooting, like an arrow … (Pt. 'B')
>
> …I've lost 35 pounds and feel like I've been run over … (Pt. 'D')
>
> …it felt like they pulled my toes out … (Pt. 'E')

Being consumed by pain included attempts to manage it. Patients consistently mentioned the pain experienced pre-operatively during their post-operative cholecystitis experiences. In addition to the pain of biliary colic, patients reported significant post-operative discomfort from "gas," with descriptions such as "terrible" and "disappointing". The postoperative pain was not expected by the patients, but contributed significantly to their experience of discomfort. Patients felt the pain was extremely distressing and disruptive to living a normal life.

Restless discomfort interrupting sleep

During the post-operative period, five out of six patients reported or exhibited signs of restlessness. The patients felt the restlessness contributed to poor sleep patterns in most of the narratives. Patients said that while they tried to sleep at night, they felt they did not sleep

at all, were restless and uncomfortable. One patient reported trying to alleviate the discomfort by "turning on his back and then on his side." Other patients described their sleep difficulties as follows:

> …I sleep a couple of hours…then I can't sleep the rest of the night… (Pt. 'F')
>
> …I couldn't sleep last night. I felt restless – but I did doze on and off today…. (Pt 'A')
>
> …there is no rest at all (Pt. 'D')
>
> …My back hurts so bad. [It's] the flat bed…. Sleeping in the chair [after surgery] has all helped… (Pt. 'C')

Restless discomfort interrupting sleep in the immediate postoperative period emerged as a pervasive theme which could, in turn, affect the healing process.

Living in uncertainty

The inability to predict when an attack of pain would occur led to the patients' feelings of uncertainty. Expressions of a loss from previous levels of functioning at home and at work were common: Some patients had significant weight loss stating they were afraid to eat for fear of the pain returning. All of the patients indicated they were unable to enjoy eating or follow their usual dietary habits while experiencing their cholecystitis symptoms: Examples of the patients' statements are as follows:

> …I thought when I could eat – I would really eat. But I can't eat…I just quit eating when I felt sick … my stomach felt shrunk up… (Pt. 'F')
>
> …I couldn't stand to look at food … (Pt. 'A')
>
> …Another patient indicated unsuccessful treatment had included a "gallbladder diet." (Pt. 'C')

The impact of a sudden illness that was not anticipated seemed to adversely impact the patient's psychological health. The patients found the unpredictability to be distressing and disruptive to living a normal life. This was evident in the following statements:

> …I've never been this depressed and listless. I go 12 hours a day on my job back home … (Pt. 'B', tears came to the patient's eyes when home was mentioned.)
>
> … [I feel] anxiety from thinking about and worrying about my body. The last time I had surgical shock…. (Pt. 'E')
>
> ….basically I'm flat on my back – no exercise or exertion (Pt. 'D')

Impatience to return to normalcy

The feeling of impatience on the part of the patients was evident in their responses of hating to wait for answers or permission to go home when ready for discharge. Once feeling better and able to eat again, patients became restless and often felt eager to return to their normal environment and routine. In the following statements, one patient did not want to keep her family and friend waiting at the hospital prior to taking her home and another also expressed her desire to leave the hospital very soon.

> …I've had company -- my husband and a friend who works … I haven't seen the doctor yet … I'm hoping to go home … (Pt. 'A')

Impatience for discharge to home was also mentioned by another patient:

> …I wish I was out of the hospital and home. My husband has a lot on his hands…. (Pt. 'F')

The recovery from the cholecystitis and cholecystectomy surgery was slower than anticipated by patients resulting in an adverse impact on emotional health and socialization as a result. A longing for rapid healing and a return to normal emotional and social functioning was expressed following surgery.

Feelings of Vulnerability

Feelings of vulnerability in not being able to care for the family and needing care for themselves also emerged as a common postoperative concern for the patient. One patient expressed frustration related to fatigue that interfered with her role in caring for the family. This was illustrated in the following statements:

> … [I feel] like I could do more for myself and I don't do it. I feel lazy. (Pt. 'F')

> … My husband will take off work to help, but he shouldn't have to do that. Otherwise, I will have no help … (Pt. 'C')

Roles fulfilled in patients' families changed as a result of acute cholecystitis with the effects reaching into economic security and the need for assistance from others. The patient was focused on concerns about coping at home following discharge, while still recovering in the hospital. The unanticipated pain and illness that led to a hospitalization and surgery had created feelings of inadequacy when the patients' thought about resuming independence as they returned home.

Feeling vulnerable, the patients expressed a "need for care" while recovering from surgery:

> … (Appears disgusted) I just wanted to get it straight that I *was* walking, too. The first shift of nurses just didn't seem to care. They were never around. The new shift that just came on really seems nice. And that fellow [nurse] that just came in is really good. They told me that maybe I'd been walking too much and when my body doesn't feel good, it's telling me to slow down… (Pt. 'C')

> …They gave me no medications. They made a mistake. They cleaned out the stones and didn't get it out [the gallbladder]. This patient felt "they made a mistake" and that they should have removed the gallbladder. She further complained, "They should pay more attention…tried to tell the doctor that it was the gallbladder". (Pt. 'B')

For this patient, care was demonstrated through clarity in communication about walking. She wanted the nurses to know that she was trying to walk like she normally would. Also, one nurse was depicted as 'uncaring' by the patient, whereas, the next shift was depicted as caring. One patient reported not receiving any medication for a sharp pain he was experiencing. Another patient stated that he wasn't told why he had terrible heart burn.

Postoperatively, these patients expressed feelings of vulnerability with a need for more nursing care.

Discussion

The aim of this phenomenological study was to gain a deeper understanding of the lived experience of acute cholecystitis from the onset of symptoms through surgery until discharge. Essence is the most essential meaning for a particular context (Giorgi, 2005 as cited in Kleiman, 2004). The experiences of the patients with cholecystitis in our study concurred with other research findings. For example, our study and another study identified incongruence between patient expectations of postoperative pain and the patient's actual experience (Ene, Norberg, Bergh, Johansson, & Sjöström, 2008) as well as the expected recovery milieu. During the pre-operative phase, patients reported feelings of uncertainty and unpredictable intense pain. Post-operatively, the patients were also focused on pain; however, the unexpectedness of the post-operative pain seemed to be the focus. Because the pain associated with cholecystitis is unexpected, it tends to create stress whenever it attacks, but even more so in those who are vulnerable to psychological stress. Some have described this variability in coping among individuals as a sense of coherence (Sagy & Antonovsky, 1996). According to Sagy and Antonovsky (1996), a high sense of coherence is associated an increased ability of individuals to manage stressful situations, such as the severe pain associated with cholecystitis prior to surgery. Some evidence suggests that individuals with a decreased ability to manage stress report more pain associated with cholecystitis and cholecystectomy (Barthelsson et al., 2011; Mertens, Roukema, Scholtes, & De Vries, 2011; Svebak et al., 2000).

There is a wide variation among individuals in the length of time patients report the suffering they have experienced with gallstone related problems prior to surgery - from weeks to years (Barthelsson et al., 2003). Consistent with prior studies (Barthelsson et al, 2003; Barthelsson et al., 2011; Costa, 2001; Kleinbeck & Hoffart, 1994; McKneally et al., 2004), the patients in our study identified psychological and physical challenges at various stages of the surgical cholecystectomy experience. Previously, a limited number of studies were found that looked at the experiences of patients with acute cholecystitis. However, these studies were completed in day surgery settings (Barthelsson et al., 2003; Gustavsson, Ung, Nilsson, & Ung, 2011). In a study completed one year after cholecystectomy surgery, Gustavsson et al. (2011) examined patients' experiences of developing, living with, and being treated for gallstone disease. The researchers identified a need for education and post-discharge support in the areas of pain management, nutrition, and prevention of future pain (Barthelsson et al., 2003; Costa, 2001; Gustavsson et al., 2011). Barthelsson et al. (2003) noted that some cholecystectomy patients reported suffering from uncontrolled pain up to a week after their "same day" surgery discharge.

In our study, unpredictability emerged as an aspect contributing to the difficulty of patients to understand, comprehend, and attach meaning to the experience (sense of coherence). Part of the distress of gallstone disease was the unpredictability of the pain attacks. The literature also supported the psychological impact of the unpredictability of the pain associated with cholecystitis (Gustavsson et al., 2011). The Gustavsson study also found the unpredictability

of pain prior to gallbladder surgery adversely impacted family relationships, ability to work, nutrition, and social activities. The experience of living with the unpredictability of the biliary pain prior to surgery seemed to impact a person's ability to function socially. Often participation in social activities was avoided because a pain attack might occur while in attendance. Our study also highlights the impact that cholecystitis has on disrupting the normalcy of daily life.

Many of the patients complained of difficulty sleeping and restlessness. Prior to surgery, the relatively abrupt pain from cholecystitis often awakened individuals from sleep (Elwood, 2008). Sleep disturbances also occur following abdominal surgeries even when pain is well-controlled (Cronin, Keifer, Davies, King, & Bixler, 2001) and sleep disturbances following cholecystectomy are more pronounced in patients who undergo the open abdominal procedure in comparison to the laparoscopic approach (Gögenur, Bisgaard, Burgdorf, van Someren, & Rosenberg, 2009). In our study, five of the six patients underwent open procedures versus the laparoscopic approach. In our study, patients described difficulty staying asleep while others reported being restless. Circadian rhythms were disrupted following both laparoscopic and open cholecystectomy surgeries, with patients reporting increased difficulty sleeping following the open procedures (Gögenur et al., 2009). Most of the patients in our study reported sleep difficulties and restlessness as a distressing aspect of the cholecystitis experience, and associated the symptoms with the pain they were experiencing at that time.

Patients in our study expressed feelings concerning their lack of preparation for the length of recovery following an abdominal surgical procedure. Acute cholecystitis interrupts one's family and work. Every aspect of an individual's life is impacted when pain from gallstones attack unexpectedly, and surgery follows. Work, leisure, and social activities are suddenly interrupted and cholecystitis demands the center stage of attention (Gustavsson et al., 2011). Finances and family function are impacted as well when one individual is hospitalized or is unable to fulfill their established family role.

Loss of appetite and avoidance of food were commonly expressed by the patients in our study prior to surgery. One patient reported not being able to eat because of a fear of a recurrent pain attack. Transcribed interviews revealed that cholecystitis meant nutritional disruption and avoidance of usual foods. Social and family activities typically involve gathering together around food. When an individual lives in fear of unpredictable severe pain following food intake, eating is less enjoyable and socialization with family and friends can be negatively impacted as a result. Similar disruptions were identified in a study by Gustavsson et al. (2011).

In our study, some patients reported that they didn't know what they should expect in terms of pain and their recovery. Concern for family by some of the patients was related to anticipated self-care deficits and the perceived burden that was felt to have been placed on family members. Assisting patients to anticipate what a typical postoperative recovery period would entail may help them better predict their functional capabilities and need for assistance from family during their convalescence period.

Feelings of vulnerability and concerns of 'needing care' were repeated by several of those interviewed. Costa (2001) identified presence as a theme from the lived experience of ambulatory surgery patients of cholecystectomy and defined it as "being available physically and emotionally to the patient" (p. 876). One patient in our study said the nurses were not readily available and were "never around." The importance of having nurses present was articulated by this patient. The patient went on to express appreciation for another nurse who "just came in" and was present with the patient. Intentionality has been identified as a critical element of the cultivation of caring (Ranheim, Kärner, & Berterö, 2012). Nurse intentionality was experienced by patients when nurses checked on them frequently, spent time with them to ensure their needs were being met, and attentively sought to relieve their pain. In addition, communicating with a "gentle touch" was identified by a patient as being caring.

Conclusion

Patients with acute cholecystitis described distressing pain and discomfort before and after their cholecystectomy surgery. The patients expressed feelings of vulnerability with "no control" over their illness. Most complained that they continued to experience pain post-operatively, and that they had expected the pain to have stopped following their cholecystectomy surgery. However, in five out of six cases they continued to describe their ongoing pain. They all seemed to have "nerves on end." They were tired, groggy from anesthesia, and had experienced trauma to their bodies. Furthermore, they still could not sleep. A motivating factor for these patients was their anticipation to return to normalcy and to get rid of their discomfort. These patients also seemed to describe feelings of inadequacy in caring for their families. Because the patients had "no control" over their lives, they felt vulnerable.

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Implications for Clinical Practice

We believe this study provided insight into the lived experience of hospitalized patients diagnosed preoperatively with cholecystitis and subsequent cholecystectomy surgeries. Preoperative education by the health care team followed by ongoing reinforcement after surgery may alleviate some of the distress during this difficult and unexpected experience. Providing education with realistic expectations about the postoperative recovery period is seen as essential for optimal patient recovery. This approach may result in the patients having reduced postoperative discomfort and pain because they will have learned how to manage their recovery.

Because cholecystitis is relatively common, the impact of the illness on the patient may be underestimated by the nurse. Nurses play an integral role in facilitating the recovery of patients with cholecystitis. Our study highlights the need for nurses to provide education and assist their patients in developing realistic expectations during the cholecystitis and cholecystectomy recovery experiences.

Table 1

Data Analysis Steps

Step	Description
1	A detailed description of the cholecystitis and surgical experience was transcribed verbatim from study participants in semi-structured interviews (1-2 hours). Often more than one interview was used to reach saturation.
2	Notes of the transcriber were read in their entirety to get a sense of the whole cholecystitis and surgical experience for all participants. Constituents of the transcription were intuitively read and labeled by the researcher. A content analysis was performed on the verbal responses to the questions and probes. Meanings were clarified among responses by relating them to each question and to the whole for division into themes. The analysis was done independently by the investigator and validated by experts.
3	A ‘narrative about the meaning’ of the study was written seeking to answer the ‘so what’ question with ‘an emphasis on critiquing the interpretations with implications and recommendations for political, social, cultural, healthcare, nursing, family, and other social systems as well as the individual’(Munhall, 2012, p.118, 124, 168).

Munhall, 2007.