Patients’ experiences of mood while waiting for day surgery
Dedication
To my beloved family

Emotions are what make us human.
And expressing them is what keeps us sane.
Anonymous

When you talk, you are only repeating what you know;
but when you listen, you may learn something new.
Dalai Lama
Margita Svensson

Patients' experiences of mood while waiting for day surgery
Abstract


Preoperative psychological state is a major issue in day surgery; especially as patients have a short hospital stay. Except for preoperative anxiety, knowledge is sparse about how patients’ experience mood during waiting for day surgery.

The overall aim of this thesis was to describe preoperative moods, persons’ experiences of preoperative mood, and the experiences persons’ describe as having an influence on their preoperative waiting.

In study I, mixed methods were used. Data from 163 participants were collected through a study-specific questionnaire. In study II, a qualitative method was used. Data from 20 participants were collected through semi-structured interviews. All participants (n=183) were waiting for small or medium surgery within four different specialties’ (I, II). Data were analysed with descriptive statistics and thematic content analysis (I) and inductive content analysis (II).

The main finding was that preoperative patients experience a variety of moods, besides anxiety patients may experience a positive mood. Mood-influencing factors while waiting for day surgery were found. Patients may experience a shifting mood or to not feel calm, while other patients may feel calm, and experience a harmonious mood. Nearly half of the participants felt calm before surgery, as seventy persons (43 %) stated that they felt calm, whereas 91 persons (57%) stated that they did not feel calm (I). Previous negative experiences from health care were confirmed as a trigger for anxiety. Earlier positive experiences, feelings of trust and expectations contribute to a harmonious mood and to feel calm. Regardless of mood, patients’ experienced feeling hope about regaining health as a help to balance mood (I-II).

The findings contribute to knowledge about different preoperative moods and may have implications in improving preoperative care with support strategies that benefits patients’ during waiting for day surgery regardless of psychological state.

Keywords: preoperative, mood, anxiety, calm, preoperative care, nursing, day surgery. Margita Svensson, Faculty of medicine and Health, Örebro University, SE-70182 Örebro, Sweden, margita.svensson@regionorebrolan.se
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LIST OF ABBREVIATIONS

ASA  American Society of Anaesthesiologists’ physical status classification system, Range ASA I–ASA VI:
ASA I – A healthy person
ASA II – A person with a mild systemic disease
ASA III – A person with a severe systemic disease
ASA IV – A person with a severe systemic disease that is a constant threat to life
ASA V – A moribund (dying) patient who is not expected to survive without an operation
ASA VI – A declared brain-dead person whose organs are being removed for donor purposes

NRS  Numeric rating scale
Unidimensional instrument used to for measure and assessment, e.g., pain intensity

QRS NVivo10  Software
Program for analysing unstructured data

SPSS  Statistical Package for the Social Science
Statistical program

VAS  Visual Analogue Scale
Unidimensional instrument used for measure and assessment, e.g. subjective characteristics or attitudes
LIST OF PUBLICATIONS

This thesis is based on the following papers, which are referred to in the text by their Roman numerals (studies I, II).


II. Svensson M, Nilsson U & Svantesson M. Patients’ experiences of mood while waiting for day surgery. (Submitted)

*Both authors contributed equally to the work in study I.

The paper has been reprinted with the kind permission of the journal.
My interest in preoperative moods started when I was a newly qualified anaesthesia nurse 1988. More experienced nurse colleagues told me that only a few years earlier, anaesthesia nurses weren’t satisfied if a person could recite their personal code number because that meant that the person wasn’t sufficiently sedated. I remember that I was pleased that we no longer sedate patients according to that criterion.

During the time I worked at a preoperative unit, in addition to the responsibilities of preparation and controls, we asked patients how they felt prior to their surgery. We let them describe how they felt and listened carefully, answered questions, and tried in various ways to make them feel secure and relaxed. We offered them music, warm duvets, informative and supportive dialogue, and when needed, sedative. I was surprised at how differently the patients described their experiences of waiting for surgery and anaesthesia. Many said that they didn’t want any premedication because they felt calm and that they didn’t need it. Others described a complexity of feelings, such as anxiety and fears, or had concerns regarding the surgery or anaesthesia. While listening to the patients, I realized that the experiences that they had described were ones that they had been dealing with ever since they had become aware of needing surgery. I started to reflect on what patients felt and why, but I found very little information in the literature about patients’ states of mind during the waiting period for surgery.

Working as an anaesthesia nurse includes safely performing medical and technical interventions and providing support by helping patients cope with the situation. I am convinced that to improve patient care, we must include patients in this work. We must listen to these patients’ perceptions and let them describe their experiences. In this way, we’ll be able to improve and achieve new knowledge, which can improve nursing care of the preoperative patient. Based on these experiences, my journey to the present thesis began.

In this thesis, persons who undergo day surgery are referred to as “patients”, but it must be kept in mind that each patient is a person. That person could be any one of us.
INTRODUCTION

The majority of patients today have complex elective surgery and anaesthesia on a day-case basis (Mitchell 2007). About 2 million day surgeries were conducted in Sweden during 2014 (Socialstyrelsen[The National Board of Health and Welfare] 2015). The goal for Swedish day surgery is to conduct surgery for such a short hospital stay that the patient does not need to stay overnight (Nätverket för Dagkirurg [Network for Day surgery] 2015).

Preoperative moods

Except for anxiety, knowledge is lacking about existing preoperative moods during the waiting period before a planned day surgery and their impact during the perioperative period. The preoperative psychological state is a major issue in day surgery, especially for anxiety management because patients have only a short hospital stay (Mitchell 2010). The preoperative phase begins when the person becomes aware of needing to undergo a surgery and lasts until the time of surgical treatment (Preoperative.In:Miller-Keane Encyclopedia and Dictionary 2003).

A mood is an emotional state. The definition of state of mind refers to a person’s mood and the effect that mood has on the person’s thinking and behaviour (State of mind.In:Cambridge Free English Dictionary and Thesaurus 2015). Feelings, emotion, and mood can be used interchangeably in some senses, but a conceptual view is consensually not yet accepted. Common themes used in definitions are that feeling is the way that an external event is transmitted to the brain; emotions are intense and mostly directed at someone or something; moods are feelings that tend to be less intense than emotions and often lack a contextual stimulus; moods are the result of an accumulation of events or experiences endured during a certain period and the way the mind is pre-configured to react to the future (Gray & Watson 2004, Hume 2015); and mood reflects the current state of mind while temperament displays the basic characteristic of a trait (personality). Finally, emotions, mood, and temperament are related but also distinct concepts (Gray & Watson 2004).

Anxiety refers to both an emotional state and a mood (Scherer et al. 2004). Anxiety is defined as an uncomfortable feeling of nervousness or worry about something that is happening or might happen in the future.
Anxiety as an emotion is characterized by feelings of tension, worried thoughts, and physical changes such as increased blood pressure. This emotional, unpleasant state of uneasiness is associated with abnormal hemodynamic as a consequence of sympathetic, parasympathetic, and endocrine stimulation. Factors that influence sensitivity to stress are genetic vulnerability, coping style, type of personality, and social support. It can be difficult to distinguish between high levels of stress and anxiety. Some patients experience it as a subjective emotional state with an internal sense of, e.g., apprehension or worry, while some patients feel a sense of fear or panic. Other patients experience anxiety as a physical state with, e.g., a sensation of tension, elevated heartbeat, sweating, dizziness, nausea, and gastric or urinary activity. Because a perceived threat to an expectation induces stress, anxiety will be triggered. However, not all stress has negative effects. There are many types of the multifaceted phenomenon of anxiety, but little attention has been given to different forms of anxiety.

Today, there is no Medical Subject Headings terms (MESH) listed for preoperative mood, preoperative state of mind, or preoperative psychological state before day surgery, which suggests that the field is studied merely due to “anxiety”. Still, many patients do not feel preoperative anxiety. Considering that 20–40% of all surgical patients in a Western population report not having preoperative anxiety, it should be important to examine the preoperative moods these patients experience. It is well established that preoperative anxiety is common, with reported frequencies of 51% (Akinsulore et al. 2015), 60% to 80% (Jlala et al. 2010), over 70% (Nigussie et al. 2014), over 80% (Mitchell 2013), and 60% to 92% (Perks et al. 2009) among patients, and that preoperative anxiety affects patients’ physiological, psychological, and sociological well-being during the perioperative period. Preoperative anxiety has been explored from many different perspectives, but very little is reported in the literature about other preoperative psychological moods such as the states of mind of patients who do not report being anxious.
A good psychological state is supposed to be a key to good health (Davis 2009). Mood and emotional state affect pain perception, where negative emotions lead to more pain than positive emotions (Haythornthwaite & Benrud-Larson 2000), as supported by Mokhuane (2011), who also reported a relationship of preoperative mood states and postoperative pain. Moods may affect wound healing, but thus far, the reports are contradictory (Smith 2004). Optimism is associated with improved outcomes following major invasive surgery (Peters et al. 2007). Both preoperative optimism and stress are important predictors of patient-rated pain severity, and optimistic persons are less likely to report pain (Rosenberger et al. 2009). Positive psychological states and health outcomes are linked, including for reduced cardiovascular disease risk and increased resistance to infection (Steptoe et al. 2009). Different psychological and psychosocial factors are involved in health psychology, including life satisfaction, optimism, self-esteem, and perception of social support. Conversely, anxiety, stress, depression, and hostility reflect a psychological state that can affect a person’s health in many negative aspects (Davis 2009). Music, odours, pictures, and humorous films have a positive effect on mood or emotional state and can reduce pain perception, while negative emotions, such as anxiety, negatively affect mood and increase pain (Villemure & Bushnell 2002). The positive effect of music on postoperative pain reduction is supported by Nilsson et al. (2003).

Negative mood hinders different aspects of the recovery process because psychosocial factors play a significant role in recovery and are predictive of surgical outcome, even after accounting for known clinical factors (Rosenberger et al. 2006). Receiving little information during the waiting period adds to patient anxiety, and patients can feel that they are not treated as individuals while waiting (Gilmartin 2004). However, information can cause an increase in anxiety for some persons (Grieve 2002). Emotional health also can influence a patient’s physical recovery after surgery. Ayers et al. (2013) found that patients with emotional health challenges had a higher possibility of having less functional improvement after orthopaedic surgery. Furthermore, they found that this risk could be preoperatively identified, although the perioperative strategies that might simultaneously support patients’ physical and emotional health were described as needing more research.
The preoperative meeting
During the preoperative meeting, patient needs for psychological preparation, information, and symptom management should be appropriately managed (Mitchell 2003a). The expansion of day surgery has led to a shift in patient pre-assessment needs compared to inpatients, and a short meeting should include both information and psychological support (Gilmartin 2004). Because of the lack of time, the conversation during a preoperative meeting focus mainly on biomedical issues, with little psychosocial discussion by the anaesthetist (Kindler et al. 2005). Surgeons also have limited time. Therefore, there is a conflict about what and how much information should be included during the meeting and what might be handed out to the patient to read before a day surgery. Patients, on the other hand, consider it to be important to be informed by the surgeon about all treatment options available (Courtney 2001).

The preoperative meeting with the surgical patient should enhance the anaesthesiologist’s awareness of a patient’s medical condition, facilitate the plan of intra- and postoperative care, and optimize the patient’s mental state as well as creating trust and confidence and reducing anxiety (Mellin-Olsen et al. 2007). Surgeons should be aware of the personal anxiety of patients and consider patient preferences when deciding who should undergo fast-track surgery in day care (Wetsch et al. 2009). At the same time, health care professionals have restricted opportunities to meet these needs because the organization of day surgery is treatment-centred, which contributes to limiting time for patient interactions with staff (Suhonen et al. 2007). Mitchell (2003a) also mentions this factor, stating that;

Current anxiety management appears to be dominated more by the desire for clinical efficiency than by effective individual requirements (p. 813).

A short hospital stay may limit health care staff opportunities to give patients good and professional care (Fraczyk & Godfrey 2010). Short hospitalization affects opportunities for health care staff to provide patients with accurate information that can reduce patient concerns and dispel misunderstandings. A well-informed patient is likely to be more satisfied and require less postoperative pain management. Patients can be mobilized more quickly and will have a shorter period of hospitalization, thus mak-
ing the care provided more cost-effective (Mitchell 2010). In anaesthesia care, it is important for health care staff to support patients by encouraging them to talk about their feelings. This need assumes that there is time to listen (Mitchell 2007, Mitchell 2010, Yilmaz et al. 2012) as well as to develop an understanding of the patient’s experience of what it is to be in a preoperative situation (Mitchell 2007, Mitchell 2012b, Yilmaz et al. 2012). Nursing in day surgery has to adapt to an environment characterized by productivity and cost-effectiveness. To ensure a safe and efficient throughput, nursing often focuses on physiological measurements. However, to enable patients to manage their recovery, the psychosocial aspects also should be regarded (Demir et al. 2008, Mitchell 2010).

Patients with knowledge of the perioperative procedure and its implications are less anxious (Kiyohara et al. 2004). Nurses should recognize the anxious patient and are responsible for holistic care (Stirling 2006). During the perioperative period, nurses and other health care staff can facilitate a sense of control for patients, beginning by listening to the patient and allowing the patient to express individual needs. Being heard by caregivers as well as having an individualized response may increase the patient’s sense of control (Susleck et al. 2007).

Receiving preoperative information is important, but there is a gap in need for adult surgical patient education, including the content of the information (Suhonen et al. 2007). Patients who are having planned day surgery can be considered as a group with some common features, but each individual, of course, has a personal experience of the situation. These experiences should be used to inform health care staff to better meet patient health needs before day surgery (Carr et al. 2006). However, because of the restricted time during a meeting, it is challenging for health care staff to support patients with coping strategies that can help patients manage anxiety during a short hospital stay (Mitchell 2012a).

**Preoperative waiting**

The preoperative period starts when a surgeon and a patient meet and agree on a surgery. Having to wait for surgery is a trigger for preoperative anxiety (Grieve 2002, Fitzsimons et al. 2003, Mitchell 2012a) and a significant factor in increasing preoperative anxiety (Jawaid et al. 2007). The individuals will use different coping strategies during the waiting, as they differ in cognitive and behavioural ability when dealing with particular
demands (Folkman & Lazarus 1987). Research into patients’ perspectives on coping during waiting is limited, thought there are apparent risks of psychological distress as waiting for surgery have substantial impact on the psychological functioning (Janzen & Hadjistavropoulos 2008) and the patient are in a vulnerable period life (Moene et al. 2006, Forsberg et al. 2014a, Forsberg et al. 2014b).

Inpatients waiting for surgery can experience increasing pain, deterioration in function, and also make essential changes to how they fill their days. They can experience lost and wasted time as well as disruption to their temporal order in their lives, which implies that patients may experience the waiting period to be both complex and multi-dimensional (Johnson et al. 2014). During waiting, patients may experience high levels of preoperative anxiety and show significant symptoms of depression due to fear, worries, and uncertainties (Fitzsimons et al. 2003, Gallagher & McKinley 2007). To experience physical and psychological stress, such as having preoperative fears about future complications like not surviving the surgery (Forsberg et al. 2015), may lead to negative effects before, during, and after surgery (Bahrami et al. 2013). A long waiting period is associated with poorer surgical outcomes (Janzen & Hadjistavropoulos 2008).

Patients’ have to live and deal with their emotions on their own during the waiting period. Patients have expressed that a long waiting for surgery causes anxiety, however Ay et al. (2014) did not define “a long waiting”. While Feuchtinger et al. (2014) defined a short waiting to be a maximum of four weeks, and a long waiting to be more than four weeks regarding patients waiting to undergo Coronary artery bypass grafting as inpatient and further, that short waiting periods might have a beneficial effect not only on somatic, but also on emotional conditions, and protect patients from a long-term experience of fear and anxiety.

International studies comparing waiting times have found that in Sweden, they are relatively long, but Sweden is far from being the only country with problems regarding health care availability (Viberg 2001). Janzen & Hadjistavropoulos (2008) refer to an investigation from 2004 by the Fraser Institute in Canada, which found that waiting times had increased by 92% between 1993 and 2004 in Canada.
According to the Swedish “National Health Care Guarantee 0–7–90–90” a person should receive treatment within a certain time. A patient has the right to contact with primary health care the same day, a visit with a physician within primary health care within 7 days, a visit with specialized care within 90 days, and treatment begun within 90 days (Svensk författningssamling: 1982:763 [Swedish law 1982:763]). Below is a “snapshot” with four examples of how many patients were waiting for different types of common day surgeries in August 2015 in Region Örebro county, and how many patients in total were waiting for the same surgery in Sweden in August 2015 (Väntetider i vården [Waiting times in health care] 2015) (see Figure 1).

<table>
<thead>
<tr>
<th>Waiting list</th>
<th>0–30 days</th>
<th>31–60 days</th>
<th>61–90 days</th>
<th>&gt;90 days</th>
<th>Region Örebro county</th>
<th>Sweden total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carpal tunnel syndrome, n</td>
<td>39</td>
<td>27</td>
<td>22</td>
<td>46</td>
<td>141</td>
<td>1695</td>
</tr>
<tr>
<td>Gallstone, n</td>
<td>31</td>
<td>14</td>
<td>16</td>
<td>67</td>
<td>131</td>
<td>2300</td>
</tr>
<tr>
<td>Kidney or Uretero-lithotomy, n</td>
<td>22</td>
<td>4</td>
<td>2</td>
<td>38</td>
<td>69</td>
<td>652</td>
</tr>
<tr>
<td>Knee arthroscopy, n</td>
<td>20</td>
<td>10</td>
<td>7</td>
<td>21</td>
<td>62</td>
<td>1948</td>
</tr>
</tbody>
</table>

Figure 1. Examples of how many patients by type of surgery were waiting in August 2015, Region Örebro county /Sweden 2015 (Väntetider i vården [Waiting times in health care] 2015).

As shown in Figure 1, the number of patients waiting for surgeries is high; as is the number of days they have to wait. But patients are not just numbers; each of the persons on the waiting list is an individual, with individual needs. During the waiting, patients might have to deal with pain and suffer from functional limitations and loss of health-related quality of life on a daily basis (Desmeules et al. 2009). Suffering can be caused by care, even if not deliberately, and also arise due to health care actions that neglect a holistic and person-centred approach to care (Berglund et al. 2012).

Premedication
Patients’ individual need for premedication before surgery to relieve anxiety and distress varies (Kiyohara et al. 2004). It is common practice for
many day surgical units to withhold anxiolytic premedication, despite the fact that some patients would consider premedication before the procedure. Premedication practices vary, e.g. between geographical areas (Carroll et al. 2012) and nations (Bell 2000).

Many health professionals believe that sedation can make patients too drowsy to be discharged on time and that premedication should be omitted during the preoperative period in day-case patients (Mitchell 2003b, Walker & Smith 2009). In a review by Brick (2010), no evidence was found of an effect on the time to discharge in patients who had received anxiolytic premedication. Other reasons not to use premedication with day surgery are that patients are required to remember important information on discharge and be able to physically walk out of the day surgery facility (Mitchell 2003b). Health care staff care and effort to help patients achieve the best outcome are essential for both a fast recovery and a safe return home. However, the organization of day surgery often affects patient interactions with staff (Suhonen et al. 2007), which can leave little time to concentrate on the psychological needs of the patients (Reynolds & Carnwell 2009). The meeting between patient and staff could give an opportunity to reduce preoperative anxiety without the use of drugs, by using kindness and attention (Kiyohara et al. 2004).

**Person-centred care**

In the literature, both concepts of ‘patient-centred care’ and ‘person-centred care’ are used. Ekman et al. (2011) highlight why the more widely used term ‘patient-centred care’ should be replaced. In person-centred care, health care professionals work collaboratively with the person to ensure that the person is treated with dignity, compassion, and respect. Using the word ‘patient’ tends to objectify and reduce the person to a mere recipient of medical services, a person whom health care does things ‘to’ or ‘for’ rather than ‘with’ (The Health Foundation 2014). Berwick (2009); however, using the older term ‘patient-centred care’, define this concept as follows:

The experience (to the extent the informed, individual patient desires it) of transparency, individualization, recognition, respect, dignity, and choice in all matters, without exception, related to one’s person, circumstances, and relationships in health care. Patient-centred care includes both patient involvement in care and an individualization of patient care” (p. 560).
Good health care should be characterized as patient-focused, equal, and safe, including the right to be given individualized and personalized information (Svensk författningssamling: 2010:659 [Swedish law 2010:659]). Swedish law also establishes an important principle: the patient’s right to self-determination (Svensk författningssamling: 1982:763 [Swedish law 1982:763]). This principle means that patients should, as far as possible after having been informed, be able to choose their treatment. All patients have a right to optimal treatment that is meaningful in the interests of the patient. The patient should be given the opportunity to be involved in their health care (Svensk författningssamling: 2014:821 [Swedish law 2014:821]). These laws are crucial to improving the health care system if striving towards person-centred care because person-centred care is one of the cornerstones of health care improvement.

Person-centred care practices relate to communication, shared decision-making, and patient education (Robinson et al. 2008). Being involved in one’s health care includes that health professionals embrace what patients describe as participation (Eldh et al. 2010). Person-centred care with individualized emotional support can prevent and reduce anxiety levels in patients (Mitchell 2003a, Jawaid et al. 2007, Gilmartin & Wright 2008, Pritchard 2009, Wilson et al. 2015) and involve treatments based on patient preference (Wilson et al. 2015). Kiyohara et al. (2004) observed that patients are less anxious if they have knowledge about the procedure and its implications, which implies that person-centred interactions can promote adherence and improve health outcomes.

Health professionals should facilitate person-centred and continuity of care throughout the day surgery experience, such as active listening and accommodation to reduce anxiety in the preoperative period (Gilmartin & Wright 2008). Acting as the patient’s advocate in the perioperative phase includes important health and well-being issues. However, because of the work environment, this role can be stressful for the nurse anaesthetist (Sundqvist & Carlsson 2004), as well as for all of the health care staff. To involve patients and ensure that they have the knowledge needed is an important part of achieving quality care in health (Larsson et al. 2007). Still, this is a challenge in day surgery with brief hospital stays and limited contact with health care professionals (Mitchell 2010). Jawaid et al. (2007) proposes establishment of preoperative counselling clinics, and properly informed consent obtained before surgery can be a strategy to
improve information given to the patients about the procedure. This approach is in accordance with thoughts about developing person-centred care.

**Patient experiences**

Studies have only rarely addressed the presence and/or levels of anxiety or other preoperative moods in adults during the whole waiting period before day surgery. Few studies are reported in which patients describe their own experiences of preoperative mood while waiting for a scheduled day surgery and anaesthesia (Grieve 2002). However, some studies for inpatients do exist, including a qualitative analysis of patient experience on the waiting list before coronary artery bypass surgery, in which Fitzsimons *et al.* (2000) identified three main problems expressed by the participants: pain, anxiety, and uncertainty. Sjölin *et al.* (2005) described that respondents, during waiting for arthroplasty surgery, express a deep sense of lost dignity, powerlessness, and frustration. These results imply a lack of knowledge about both preoperative anxiety and other preoperative moods during the waiting period before day surgery.

Anxiety before elective surgery is the only mood that has been studied for many decades (Mitchell 2010). In the literature, preoperative anxiety is merely discussed on the same day as the surgery (Grieve 2002, Carr *et al.* 2006), and the most common method is to assess and/or measure the patient’s psychological status the day before or the day of the planned operation. Assessing psychological status at any other time during the waiting period seems to be rare. Thus, only a very short period serves to capture a person’s mood during the preoperative waiting. Furthermore, using questionnaires and instruments to measure psychological status might have some disadvantages, especially when measuring abstract concepts such as personality (Rose & Devine 2014).

The benefits of using patient experiences to improve the experience of care in the future is supported by the guidelines from National Health Service in Great Britain (NICE guidelines [CG138] 2012). This support is in coherence with the intentions of the Swedish laws, as a patient should be given the opportunity to be involved in their health care. Good health care should be characterized as patient-focused, equal, and safe, including the right to be given individualized and personalized information and the patient’s right to self-determination (Svensk författningssamling:2014:821 [Swedish law 2014:821]), (Svensk författningssamling:2010:659 [Swedish
Health care staff play important roles in psychological support during the perioperative period (Lee et al. 2015), but according to the literature, formal psychosocial care for patients is currently rarely offered in day surgery settings (Mitchell 2007, Gilmartin & Wright 2008). Enhanced knowledge about preoperative moods and states of mind may be used to improve health care for patients awaiting day surgery. If more is revealed about different preoperative moods, we could obtain new insights that also could contribute to helping patients who struggle with anxiety while waiting for a planned surgery. Empowering preoperative patients and addressing their different psychosocial needs may improve patient adherence, satisfaction, and medical outcome (Kindler et al. 2005). Interventions that address psychological distress during the wait for surgery are needed because it is important to understand experiences that are attributable to different preoperative moods to be able to give support and individualized information (Janzen & Hadjistavropoulos 2008).

This thesis is my contribution to enhancing knowledge about patient state of mood before a day surgery.
RATIONALE

Preoperative anxiety is common and has multiple negative effects. While waiting for day surgery, patients’ are considered to be in a vulnerable period both psycho-logically and physiologically. The context of preoperative anxiety has been studied from various perspectives and is well reported in the literature. However, little is known how patients’ experience their waiting for surgery through the entire waiting period and, except for preoperative anxiety, there is a lack of knowledge about other moods experienced by patients during waiting and the impact of different moods during the perioperative period.

To achieve knowledge and broaden the understanding about preoperative mood, it is important to capture patients’ experiences through their own words. A deeper knowledge about preoperative moods and how they are experienced is needed and may be useful for improving perioperative care.

Hopefully, these studies may contribute to increased knowledge about experiencing different preoperative moods during waiting for day surgery and the findings may have implications while developing and improving preoperative care. An enhanced knowledge may be beneficial while striving to develop preoperative strategies that will benefit the individual patient and may be a first step to develop an innovative solution of how patients’ before day surgery can have access to better information and individual support during their waiting.
AIMS

The overall aim was to explore and describe patient experiences of preoperative mood while waiting for day surgery and anaesthesia.

The specific aims were as follows:

To examine if patients, while waiting for day surgery and anaesthesia, feel calm or not

To describe patients’ occurring preoperative moods while waiting for day surgery and anaesthesia

To describe how patients experience preoperative mood while waiting for day surgery and anaesthesia

To describe which patient experiences influence preoperative mood while waiting for day surgery and anaesthesia
METHODS

Design

An overview of the two studies according to design, participants, data collection, and analysis is presented in Table 1.

Table 1. Design, participants, data collection, and analysis in study I and II.

<table>
<thead>
<tr>
<th>Study</th>
<th>Design</th>
<th>Participants</th>
<th>Data collection</th>
<th>Data analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Quantitative and qualitative</td>
<td>n=163</td>
<td>Study-specific questionnaire, Numeric Rating Scale</td>
<td>Thematic content analysis</td>
</tr>
<tr>
<td></td>
<td></td>
<td>85 men/78 women</td>
<td></td>
<td>Mann–Whitney U test</td>
</tr>
<tr>
<td></td>
<td></td>
<td>17–88 years mean 51</td>
<td></td>
<td>Chi-square test with Yates’ correlation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>years</td>
<td></td>
<td>One-way ANOVA</td>
</tr>
<tr>
<td>II</td>
<td>Qualitative</td>
<td>n=20</td>
<td>Individual semi-structured interviews</td>
<td>Inductive content analysis</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12 men/8 women</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>25–76 years mean 56.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>years</td>
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</tr>
</tbody>
</table>

Settings and study population
A total of 193 persons meeting the inclusion criteria were approached. In study I, 163 participants were included, and in study II, 20 persons participated. All participants were waiting for day surgery and anaesthesia at the University Hospital in Örebro, Sweden. They were recruited from four clinical disciplines and were waiting to have a small or medium hand, general, orthopaedic, or urological surgery. In study I, the participants were recruited between May and December 2005, and in study II, from November 2013 to April 2014.
The inclusion criterion in both studies was that participants were scheduled for an elective hand, general, orthopaedic, or urological day surgery procedure. In study I, other inclusion criteria were age ≥17 years, ability to speak and read Swedish, and being classified by an anaesthetist in physical function to class I–II, as per the American Society of Anaesthesiologists (ASA). Exclusion criteria in study I were cognitive impairment or psychiatric diagnosis. In study II, inclusion criteria were age ≥18 years and being able to understand Swedish. Exclusion criteria in study II were cognitive impairment, psychiatric diagnosis, or diagnosis or suspicion of cancer. ASA classification was not available to the researcher for all participants in study II, but available assessment was set to ASA class I–III. In both studies I and II, patients were not asked to participate if the investigators noted that the person could not assimilate oral and/or written information.

In study I, 163 participants were asked to answer the study-specific questionnaire and assess on a numeric rating scale (NRS) if they felt calm or not calm. This assessment was performed after they agreed to participate and in connection with their arrival at the day surgery ward on the scheduled day for their surgery. No prescribed premedication was given to the participants before filling in the form. In study I, a total of 161 participants were included in the results because two participants were excluded for misunderstanding the questions.

In study II, 30 patients were initially asked to participate in an individual interview through strategic sampling, based on factors of gender, age, and type of surgery represented in each group. Selection of participants was conducted in cooperation with the head of each unit’s operation planning team. Information about the study and the invitation for participation were sent by regular mail together with the notice of the surgery. The first author then had telephone contact with the patient within 10 days to ask if the person could consider participating. The drop-out of ten people was the result of an inactive telephone number, deferred surgery, or indisposition, and one person declined to participate. Informants who agreed to participate met the interviewer the day before their planned day surgery, except for one participant who, because of working the nightshift, wanted to have the interview 2 days before the planned day surgery.
In study II, a total of 20 participants thus were included. All participants in study II were asked to choose a preferred place where they wanted to have the interview. Sixteen interviews were conducted in the participants’ homes. Three participants asked to meet the interviewer at an office, and one wanted the interview to take place at the participant’s company.

A total of 183 patients accepted and were included in the two studies. The results are presented from 181 patients because two participants were excluded for misunderstanding the questions (I). Of this number, 85 were women and 96 were men, ranging in age from 17 to 88 years (mean=53.5 years). Figure 2 is a flow chart of participant selection for studies I and II.

* One person declined and nine were not eligible because of an inactive telephone number, deferred surgery, or indisposition.
** Two participants were excluded because they misunderstood the questions and gave a rating of 1 on the NRS while stating that they felt completely calm.
DATA COLLECTION

Pilot studies and feedback
In study I, a pilot study of the actual questionnaire was first carried out involving 15 participants. The participants were co-workers and patients who were verbally informed about the aim and asked to participate. Those participating in the pilot study were asked to give their views on the design of the questionnaire and answer the questions it contained to enable an evaluation of content validity. Because no critical viewpoints emerged, the questionnaire was left unchanged.

In study II, a pilot study with four females from 29 to 47 years was conducted. A request to participate in a pilot interview was made via social media. The first four persons who volunteered were included. None were waiting for a planned surgery but did have experiences of a recent surgery. A revision of the questions was made after the pilot interviews because they were asked to answer in reverse time. The main aim with the pilot study was to test the questions. In study II, the last author read the first two interviews in the study and gave feedback to the interviewer (first author) before the other interviews were conducted.

While conducting both pilot studies (I, II), ethical rules were followed. None of the pilot studies are included in either of the studies.

Study I
The data were collected from 163 patients preoperatively the same day as the scheduled day surgery. In the study-specific questionnaire, participants were asked to tick one of the statements “I feel calm” or “I don’t feel calm”. Participants responding “I don’t feel calm” were asked to specify the degree of non-calmness, i.e., anxiety, on the NRS, gradated from 1–10, where 1 = slightly anxious, and 10 = very anxious. In the questionnaire, 0 (no anxiety) was eliminated because the response “I don’t feel calm” is indicative of some level of anxiety. The questionnaire ended with an open-ended question: “Please describe the reason for your current mood”. All participants in the study were asked to answer this question. The time needed to answer the questions was estimated to be about 10 minutes (see Figure 3).
1. Please mark your current state of mind

☐ I feel calm
☐ I do not feel calm

2. If you are not feeling calm, please mark the number that indicates your degree of anxiety

1 2 3 4 5 6 7 8 9 10
Slightly anxious Very anxious

3. Please describe the reason for your current mood.

...........................................................................................................................................................
...........................................................................................................................................................
...........................................................................................................................................................
...........................................................................................................................................................

Figure 3. Study-specific questionnaire (Study I).

Study II
The data were collected from 20 participants the day before a scheduled day surgery through individually semi-structured interviews. One of the 20 participants was interviewed 2 days before the surgery at their own request.

The main question was intended to give the respondents the opportunity to freely describe how they experienced their preoperative mood during the entire waiting period, from the decision to have surgery to the day before the planned surgery. The opening questions were “Can you please describe your current mood, the day before your day surgery and anaesthesia?”, “Can you please describe your mood during the waiting for your day surgery and anaesthesia?”, and “Can you please describe why you have felt like this during waiting for day surgery and anaesthesia?” Follow-up questions were used to achieve greater clarity on various issues. The audiotaped interviews lasted from 16 to 45 minutes (mean 27 minutes).
ANALYSIS

Statistical analysis, study I
In study I, data were analysed using analytical statistics, as well as thematic content analysis of the free-text answers.

A calculation of sample size was performed based on the following assumptions: a one-way analysis for anxiety, significance level 5%, power 80%, and a standardized difference of 0.45, which suggested a sample size of 150 participants. To cover the risk for eventual attrition, a sample size of 163 was chosen. To test the differences between the two groups “I feel calm” and “I don’t feel calm” and their subgroups, a chi-square test with Yates’ correlation was used. The results of the assessment for anxiety using the NRS are presented as arithmetic means and ranges, although it is referred to as an ordinal scale. The non-parametric Mann–Whitney U test was used to test the differences between the groups. A P value of less than 0.05 was considered statistically significant. SPSS for Windows was used for all statistical analyses (SPSS Inc., Chicago, IL). The number of written statements in study I (details described under “Content analysis” below) and frequencies were calculated and presented for each category. The differences between the frequencies of statements and the level of anxiety were analysed using the Mann–Whitney U test.

Content analysis, studies I and II
In study I, data from the responses given to the open-ended question were analysed by thematic content analysis (Graneheim & Lundman 2004). All statements due to the reasons for the current mood were read through word by word by the first two authors. The statements were coded and organized into categories. During the coding and organization, the texts were read repeatedly. In the groups, “I feel calm” and “I don’t feel calm”, a total of 10 different categories were identified and five categories in each group were found. The last author made an independent assessment of the statements. Twenty of the statements were randomly selected from the material by the second author, and the third author read these and proposed categories. The categories from the first two authors and the third author were then compared and discussed to reach agreement about categories and method of presentation.
The 10 categories from the two groups were also condensed into five categories each. As described under “Statistical analysis” above, the non-parametric Mann–Whitney U test was used to evaluate for differences between the frequencies of statements and the level of anxiety.

In study II, data from the 20 interviews were analysed with inductive content analysis, inspired by Elo and Kyngäs (2008). In the preparation phase, the audiotaped interviews first were listened to completely several times to allow for familiarization with the data. The first author transcribed the interviews verbatim, including different expressions and observed body language as part of the reading, and to get an understanding of the whole. Later, all of the interviews were transcribed by an experienced and professional transcriber.

Throughout the analysis, a software program, QRS NVivo10, was used. To become immersed in the data and gain a general sense of the text, the first author read through the transcribed data several times. During the organization phase, relevant data were examined systematically word by word, and meaningful statements and phrases according to the aim of the study were identified with open coding and selected as meaning units. Meaning units were organized as nodes. Subcategories with similar events were extracted and grouped together under headings. To reduce the number of categories, similar or dissimilar categories were collapsed into higher-order categories describing the phenomenon. While formulating the categories, the researcher interpreted which text to place in the same category. In the abstraction phase, each category was named using content characteristic words. Through the generated categories, a general description, an abstraction of the phenomenon, was formulated. The main category consists of subcategories with similar events or incidents grouped together as categories, and the generic categories are grouped to a main category. Because content analysis is complex and does not proceed in a linear fashion, the author moved back and forth between the whole and parts of the text throughout the process. The research team analysed six of the interviews from the QRS NVivo10 for consistency.

The process of inductive content analysis to explore patients’ experiences waiting for day surgery and anaesthesia (II) is exemplified in Table 2.
Table 2. Example of qualitative content analysis to explore patients’ experiences waiting for day surgery and anaesthesia (II).

<table>
<thead>
<tr>
<th>Meaning unit</th>
<th>Nod</th>
<th>Subcategory</th>
<th>Generic category</th>
<th>Main category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oh, it’s fine! Rather ... it’ll be great to have it done, it’s more like that feeling.</td>
<td>Mood described as feeling calm, well, as one usually feels.</td>
<td>Feeling calm and at ease despite concerns and fears</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I’m looking forward to having it done!</td>
<td>Mood described as feeling an expectation of becoming healthy, able to work/do chores/get rid of pain.</td>
<td>Experiencing expectation</td>
<td>Experiencing a harmonious mood</td>
<td></td>
</tr>
<tr>
<td>Now I feel confident, and I know it’s going to take time. No, I can’t say ... No, I’m only positive!</td>
<td>Mood described as feeling confident that all will turn out well and having trust in health care.</td>
<td>Feeling trust and confidence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Because I know what is awaiting me, maybe I feel a bit uneasy, but at the same time, it’s nice that it will be done.</td>
<td>Mood described as feeling anxiety, worried, tense although one wants to have the surgery done to become healthy/get rid of pain.</td>
<td>Shifting between expectancy and anxiety</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes, you get well, you become completely vulnerable, to others to take care of you.</td>
<td>Mood described as feeling vulnerable and exposed during waiting, during the surgery/being at the hospital.</td>
<td>Feeling vulnerable and exposed</td>
<td>Experiencing a shifting mood</td>
<td></td>
</tr>
<tr>
<td>Well, it can be a little, a little stressful because you do not know what it will be like.</td>
<td>Mood described as feeling stressful and feeling uncertainty due to lack of information/risk/being in time/the nature of pain/postoperative period.</td>
<td>Feeling uncertainty</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ETHICAL CONSIDERATIONS

In both studies, the Declaration of Helsinki (1964) was followed. Ethical standards for scientific work were followed, and ethical issues were carefully considered throughout all phases of the research in studies, analyses, and preparation of the manuscripts (Svensk författningsamling: 2003:460 [Swedish law 2003:460]) as well as not disclosing patient information or causing damage or suffering (Vetenskapsrådet för god etik [The Swedish Research Council for good ethics] 2011). Ethical approval was obtained from the Regional Ethical Review Board in Uppsala, Sweden, with the reference numbers 2004/406 (I) and 2012/356 (II). All four medical directors at the current clinics as well as the medical director at the Department of Anaesthesiology and Intensive Care, Örebro University Hospital, were informed in both studies I and II and gave their approval.

The participants in studies I and II received both oral and written information about the study and their participation. All participants were informed that participation was voluntary, that they had the right to refuse to participate, and about the possibility of withdrawing from the study at any time without giving any reason. The participants in both studies I and II were assured confidentiality, respectively, in study I by using a coded form and presentation of results at a group level, and in study II by using a code for each participant. In study II, the interviews were transcribed with no personal data.

In study I, on the day of the surgery and in connection with their enrolment in the day surgery ward, patients consecutively were informed by one of the two researchers about the aim and intentions of the study. Patients who chose to participate in study I gave oral informed consent before they were provided with written material. In study II, the selection of participants was done in cooperation with the head of each unit’s operation planning team. Information about the study and the request for participation were sent by regular mail together with the notice of the surgery. The researcher contacted those who had been requested by phone within 10 days and oral information was given. Patients who chose to participate in the study were asked to suggest a time and a place for the interview the day before their day surgery. Both verbal and written information were given prior to the interview. Participants in study II gave their written informed consent before the interviews.
In both studies I and II, participants were entitled to make individual decisions about how long they wished to participate and under what conditions. They were able to stop their participation without any negative consequences. The participants were not subjected to any form of persuasion or efforts to retain them in the study. Those who refrained from taking part or who did not participate in the entire study were not given a lower level of care or perioperative care. Participants who were included in other studies did not take part in either study I or II. The interviewers were not involved in the participants’ care (I or II).

Both in studies I and II, information was given about publication of the results. In study II, two of the participants wanted to have a personal notice about when and where the publication was set.
RESULTS

The results from studies I and II highlight what patients may experience while waiting for day surgery and anaesthesia. The main finding was that patients preoperatively may feel anxiety or not feel calm, or experience a shifting mood. On the other hand, patients may feel calm or experience a harmonious mood during the waiting before a planned day surgery and anaesthesia. Regardless of mood, patients may feel hope about regaining health as a way to balance mood before a planned day surgery and anaesthesia.

Summary of results in study I
Calm or Not Calm: The Question of Anxiety in the Perianesthesia Patient (I).
Participants’ sociodemographic and clinical data and a comparison between patients who rated themselves as calm versus not calm (n=161) in study I are presented in Table 3.

Table 3. Participants’ sociodemographic and clinical data and a comparison between patients who rated themselves as calm versus not calm (n=161) (I).

<table>
<thead>
<tr>
<th></th>
<th>I feel completely calm (n=70)</th>
<th>I do not feel calm (n=91)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (min–max)</td>
<td>51.7 (18–88)</td>
<td>49.8 (17–82)</td>
<td>n.s.</td>
</tr>
<tr>
<td>Female</td>
<td>27</td>
<td>50</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>Male</td>
<td>43</td>
<td>41</td>
<td>n.s.</td>
</tr>
<tr>
<td>ASA I</td>
<td>43</td>
<td>55</td>
<td>n.s.</td>
</tr>
<tr>
<td>ASA II</td>
<td>27</td>
<td>36</td>
<td>n.s.</td>
</tr>
<tr>
<td>Previous experiences of surgery</td>
<td>63</td>
<td>67</td>
<td>n.s.</td>
</tr>
<tr>
<td>No previous experiences of surgery</td>
<td>7</td>
<td>24</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>General anaesthesia</td>
<td>61</td>
<td>78</td>
<td>n.s.</td>
</tr>
<tr>
<td>Regional anaesthesia</td>
<td>9</td>
<td>13</td>
<td>n.s.</td>
</tr>
<tr>
<td>Type of surgery</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General surgery</td>
<td>27</td>
<td>37</td>
<td>n.s.</td>
</tr>
<tr>
<td>Orthopaedic</td>
<td>22</td>
<td>33</td>
<td>n.s.</td>
</tr>
<tr>
<td>Urology</td>
<td>12</td>
<td>9</td>
<td>n.s.</td>
</tr>
<tr>
<td>Hand</td>
<td>7</td>
<td>12</td>
<td>n.s.</td>
</tr>
<tr>
<td>Missing information</td>
<td>2</td>
<td>-</td>
<td>n.s.</td>
</tr>
</tbody>
</table>
This study aimed to explore whether patients preoperatively felt calm or not before undergoing an elective day surgery and to elucidate the factors contributing to a patient’s current state of mind. The results showed that nearly half of the participants felt calm before surgery, with 70 patients (43%) stating that they felt calm and 91 patients (57%) saying that they did not feel calm.

As presented in Table 3, participants rating themselves as calm and not calm did not differ significantly in terms of age, gender, ASA class, previous experiences with surgery, potential cancer diagnosis, type of anaesthesia, or type of surgery. A total of 17 participants had a potential preoperative cancer diagnosis (11%), and 130 (81%) had previously undergone surgery. Of those taking part in the study, 139 were given a general anaesthetic (86%) and 22 (14%) regional anaesthesia. A significantly higher proportion of women did not feel calm (n=50, 65%, vs those feeling calm, n=27, 35%; P<0.05).

In all, 190 statements about factors contributing to the patient’s current state of mind were submitted, 77 for feeling calm and 113 for not feeling calm. Sixteen participants who assessed themselves as calm and six not feeling calm gave no reason for their state of mind. Factors that influenced preoperative mood were earlier positive experiences, feeling of security and caring, being well-informed, and having positive expectations, with a higher proportion of participants with a previous positive experience of undergoing surgery assessing themselves as calm (n=63) versus not calm (n=7; P=0.01). The statements for feeling calm were categorized into five categories: “previous experience”, “security”, “caring”, “information”, and “expectation”. Most statements for explaining calmness were in the category “previous experience” (30%), which is in contrast to the not-calm participants, who provided fewer statements of previous experience with surgery (7%).

An overview of categorized statements and numbers of statements for feeling calm (I), are presented in Table 4.
Table 4. Number of statements (n=77), examples of quotes from the subjects (n=70) who rated themselves as feeling calm (I).

<table>
<thead>
<tr>
<th>Category</th>
<th>Previous experience</th>
<th>Security</th>
<th>Caring</th>
<th>Information</th>
<th>Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of statements (%)</td>
<td>23 (30%)</td>
<td>19 (25%)</td>
<td>17 (22%)</td>
<td>9 (12%)</td>
<td>9 (12%)</td>
</tr>
<tr>
<td>Examples of statements</td>
<td>“I’ve had so many operations that I know what it’s all about”</td>
<td>“I’m perfectly confident” trust in the staff”</td>
<td>“Relaxed environment, pleasant nurses, and there’s a TV”</td>
<td>“I know enough about what’s going to happen”</td>
<td>“At last I’ll be rid of my pain”</td>
</tr>
<tr>
<td></td>
<td>“I’ve been treated previously with excellent results”</td>
<td>“I’ve met the anaesthetist and surgeon and feel calm and safe”</td>
<td>“I got a very friendly reception”</td>
<td>“I’ve been given lots of information”</td>
<td>“I hope to recover sufficiently to start power training again”</td>
</tr>
<tr>
<td></td>
<td>“My previous operation was quite undramatic. I’m not normally a calm sort of person”</td>
<td>“I feel perfectly calm; they’re trained staff who know what they’re doing; whatever happens, there are always staff who are eager to help”</td>
<td>“I got a good reception at the surgical unit”</td>
<td>“Excellent information prior to the operation”</td>
<td>“I’m really looking forward to the results”</td>
</tr>
<tr>
<td></td>
<td>“I’ve had operations before and usually feel calm”</td>
<td>“Completely confident, no worry”</td>
<td>“I think I’ll be well looked-after”</td>
<td>“The staff have explained to me what’s going to happen”</td>
<td>“I feel calm and am happy that I can at last have my operation”</td>
</tr>
<tr>
<td></td>
<td>“I’ve had a similar operation and know more or less what to expect”</td>
<td></td>
<td>“Calm, matter-of-fact staff and a nice waiting room”</td>
<td>“I’ve had plenty of information”</td>
<td>“I’ve had a long wait, but now the time has come”</td>
</tr>
</tbody>
</table>
The statements for not feeling calm were also categorized into five categories: “the situation”, “outcome of surgery”, “anaesthesia and recovery”, “nausea and pain”, and “previous experience”. Most statements for explaining non-calmness were in the category “the situation” (44%). The 91 participants who assessed themselves as “not calm” rated their degree of anxiety at 3.5 on the NRS (range 1–10), with averages of 4.0 for women and 2.9 for men (range 1–10). This difference was not statistically significant. A comparison between categories and rated anxiety revealed no statistically significant difference. The highest rated level of anxiety, 5.4, was found among participants who gave statements in the category “previous experience”, whereas the lowest level, 3.4, was found in the category “anaesthesia and recovery”.

An overview of categorized statements, numbers of statements, and anxiety ratings on the NRS for not feeling calm (I) are presented in Table 5.
Table 5. Number of statements (n=113), examples of quotes from the subjects (n=91) who rated themselves as not feeling calm (I).

<table>
<thead>
<tr>
<th>Category</th>
<th>The situation</th>
<th>Outcome of surgery</th>
<th>Anaesthesia and recovery</th>
<th>Nausea and pain</th>
<th>Previous experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of statements (%)</td>
<td>50 (44%)</td>
<td>23 (20%)</td>
<td>17 (15%)</td>
<td>15 (13%)</td>
<td>8 (7%)</td>
</tr>
<tr>
<td>Anxiety, 1–10 (range)</td>
<td>“I feel a little uneasy, but at the same time it’s good to get this thing over with”</td>
<td>3.8 (1–8)</td>
<td>3.4 (1–8)</td>
<td>3.9 (1–7)</td>
<td>5.4 (1–9)</td>
</tr>
<tr>
<td>Examples of statements</td>
<td>“That I wouldn’t be healthy enough for the operation”</td>
<td></td>
<td>“The process of falling asleep and recovery – what will that be like?”</td>
<td>“I'm wondering about whether I'll feel pain after the surgery”</td>
<td>“Bad experience”</td>
</tr>
<tr>
<td></td>
<td>“I might wet myself”</td>
<td></td>
<td>“I’m wondering whether the surgery will affect my mobility”</td>
<td>“I’m worried about having an anaesthesia, that’s a risk in itself”</td>
<td>“I’ve had some bad experience of health care back home”</td>
</tr>
<tr>
<td></td>
<td>“An operation’s not the sort of thing you do every day”</td>
<td></td>
<td>“I feel uneasy about being awake during the surgery”</td>
<td>“Nausea following anaesthesia”</td>
<td>“I’ve been through the same sort of surgery before, very painful”</td>
</tr>
<tr>
<td></td>
<td>“I thought I would go to sleep, but now I’m not sure that I’ll be able to”</td>
<td></td>
<td>“I worry about what it’ll be like at home”</td>
<td>“Then I’m worried that it’ll hurt afterwards”</td>
<td>“My second operation, it was easier before because then I hadn’t experienced an operation of my own”</td>
</tr>
<tr>
<td></td>
<td>“I’ve never gone through anything like this before, that’s why I’m a bit worried”</td>
<td></td>
<td>“I’m worried about what the sample will show”</td>
<td>“I’m a little afraid of injections and worry that it’ll hurt”</td>
<td></td>
</tr>
</tbody>
</table>
Summary of results in study II

Patients’ Experiences of Mood while Waiting for Day Surgery (II). The participants’ sociodemographic and clinical data in study II are presented in Table 6.

Table 6. Participants’ sociodemographic and clinical data (n=20) (II).

<table>
<thead>
<tr>
<th>Gender, n</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Male/female</td>
<td>12/8</td>
</tr>
</tbody>
</table>

| Age Mean (range) | 57 (25-76) |

<table>
<thead>
<tr>
<th>Education, n</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Compulsory/vocational school</td>
<td>10</td>
</tr>
<tr>
<td>Secondary school</td>
<td>5</td>
</tr>
<tr>
<td>College/university</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Marital status, n</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>3</td>
</tr>
<tr>
<td>Married or living together</td>
<td>17</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Place of residence, n</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural or small town (&lt; 25 000 inhabitants)</td>
<td>10</td>
</tr>
<tr>
<td>Urban (&gt;100 000 inhabitants)</td>
<td>10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Employment, n</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Employed /Retired</td>
<td>12/8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Experience of previous surgery, n</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes/No</td>
<td>17/3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Waiting time, n</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Weeks 2-78*</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Planned elective surgery n</th>
<th>Male/Female n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hand surgery¹</td>
<td>1/4</td>
</tr>
<tr>
<td>General surgery²</td>
<td>3/2</td>
</tr>
<tr>
<td>Orthopaedic surgery³</td>
<td>3/2</td>
</tr>
<tr>
<td>Urological surgery⁴</td>
<td>5/0</td>
</tr>
</tbody>
</table>

* Missing information from two participants

¹ For example, Duptruytrens contracture, scaphoid fracture, and flexor tendon transfer.

² For example, epigastric hernia, groin hernia and gall stones.

³ For example, wrist arthroplasty, arthroscopic rotator cuff suture and extracting of fixation.

⁴ For example, circumcision and laser lithotripsyl flexible ureteroscopy.
This study aimed to describe patients’ experiences of mood during the waiting period before a planned day surgery and anaesthesia.

The results highlight a diversity of moods that patients may experience while waiting for day surgery and anaesthesia. The following main category emerged in the informants’ descriptions of their experiences of mood during the waiting period before a planned day surgery and anaesthesia: “feeling hope about regaining health as a help to balance mood”. Analysis of the interviews led to identification of six subcategories, of which three represent experiencing a harmonious mood and three represent experiencing a shifting mood.

Participants who described a harmonious mood experienced emotional balance during the waiting period as being calm and at ease despite concerns and fears, had positive expectations, and felt trust and confidence. They described a stable mood with some concerns and managed to balance negative thoughts. When describing a shifting mood, the participants reported shifting between expectancy and anxiety, feeling vulnerable and exposed, or feeling uncertainty during the waiting. They described having an unstable mood and their difficulties balancing negative thoughts. They described that feeling vulnerable, a fear of the unknown, having fears about postoperative pain, and lacking information about the postoperative period contributed to feeling an emotional imbalance during the waiting period. Participants also described that having limited independence in activities in daily living contributed to a shifting mood. Their hope of regaining health helped them to overcome negative feelings, but they described that they were struggling to balance negative thoughts.

Participants reported that feeling trust and calm, having positive experiences and social support, and feeling confidence and trust in the health care staff were a relief that made them feel optimistic, which contributed to their being in emotional balance. Regarding expectations, they described their hope of regaining health as feelings of relief, and they perceived it as pleasant that it was finally time to have the surgery after a sometimes long waiting period. Regarding being calm and at ease, despite some concerns and fears, the participants mentioned dissatisfaction with health care, being superstitious but still able to accept having surgery on Friday the 13th, or accepting the need to fast for several hours. They also described concerns such as distress about not knowing how the postopera-
tive period would go because they did not look forward to being stuck at home or having to be dependent and ask for help. The hope of regaining health helped them to balance negative thoughts. Regarding information, the participants appeared to have different needs for the amount of information; some said that too much information, while others said that too little information caused anxiety.

Thus, regardless of mood, participants described that during the waiting, the expectation of regaining health was helpful for balancing mood. The subcategories, generic categories, and main category (II) are presented in Figure 2.

<table>
<thead>
<tr>
<th>Subcategories</th>
<th>Generic categories</th>
<th>Main category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feeling calm and at ease despite concerns and fears</td>
<td>Experiencing expectation</td>
<td>Feeling hope about regaining health as a help to balance mood</td>
</tr>
<tr>
<td>Feeling trust and confidence</td>
<td>Experiencing a harmonious mood</td>
<td></td>
</tr>
<tr>
<td>Shifting between expectancy and anxiety</td>
<td>Experiencing a shifting mood</td>
<td></td>
</tr>
<tr>
<td>Feeling vulnerable and exposed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feeling uncertainty</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Figure 2. The subcategories, generic categories and main category (II).*
DISCUSSION

Discussion of the findings
Although knowledge about preoperative anxiety is considerable, understanding about other preoperative moods is fragmented, and this thesis thus has contributed that patients might feel calm and experiences a harmonious mood or not feels calm and experience a shifting mood while waiting for day surgery. Furthermore, factors contributing to these respective moods are thoroughly described. The most salient finding described by participants was that hope could be interpreted as an optimistic feeling, one that was helpful both for those experiencing a harmonious mood and those experiencing shifting between moods (II). The findings give an overall view of how patients experience their preoperative mood before a day surgery (I, II) and may be interpreted as indicating that regardless of mood, patients can experience the hope of regaining health and use it to balance mood during the waiting. In study I, nine participants described their hope; indeed, it was the described hope in the first study that the author found to be one of the most conspicuous results and that served as the inspiration for investigating this question more deeply, serving as the starting point of the second study.

Hope, hopefulness and optimism are synonyms (Hope.In:Dictionary.com 2015). Hopefulness, as feeling or expressing hope, and optimism are associated with positive health outcomes and are important in healthcare, as a healing resource for recovery due to illness or injury (Clarke 2003). Optimism and stress are both important predictors of severity of postoperative pain, were optimistic persons are found to report less postoperative pain (Rosenberger et al. 2009). Optimism has influence on a person’s mental and physical wellbeing as well as problem-solving capacity with a positive relation between optimism and coping strategies that emphasis on positive aspects of stressful situations (Conversano et al. 2010). Preoperative optimism and positive expectations affect postoperative outcomes more than all other aspects of coping regarding surgical outcomes (Mitchell 2005). On the other hand, to have a pessimistic outlook in the preoperative phase will affect the person negatively (Mitchell 2005). Furthermore, to have hope and faith is a multifaceted phenomenon, a belief about something that feels uncertain are accompanied with an expectation and/or convictions.
Participants experiencing a harmonious mood mentioned how they balanced negative thoughts, while participants’ experiencing a shifting mood described their struggle with negative thoughts and difficulties with supportive coping strategies. This may be in coherence with Grieve (2002), who reports that individual coping styles adapt according to the experienced level of anxiety. Which coping strategy a person will use is affected by how one interprets the situation, and the consequences of the strategy (Krohne et al. 1996). With increased anxiety levels, a diminished control over an event is experienced and patients who tend to favour avoidance coping strategies, is at risk for developing long-term problems (Grieve 2002). However, there is limited research into patients' perspectives on coping while waiting for day surgery (Janzen & Hadjistavropoulos 2008). The use of personality trait is common in preoperative anxiety research (Mitchell 2003a), used to assess the individuals respond to a stressful situation (Spielberger et al. 1983). Janzen & Hadjistavropoulos (2008) proposes a further extension of the use of personality trait in research, and include investigation of two anxiety related constructs; “Anxiety sensitivity” and “Health anxiety”. The constructs may be used to predict patients that might have difficulties with coping and are at risk to develop psychological distress while waiting for surgery.

The interventions in the two studies were conducted the same day as the planned surgery (I), and the day before the surgery (II). In study I, the participants were asked to describe their current mood but not asked about preoperative mood during the waiting period, however, to wait in the preoperative area may contribute to stress as waiting provides time for patients to think, and worry about the upcoming surgery (Mitchell 2010, Brand et al. 2013, Nigussie et al. 2014). As waiting time was not assessed in study I, thus there is limited information about the participants’ experiences during the waiting in the first study. In study II, the participants were asked to describe their preoperative mood during the whole waiting period. In the second study, waiting time was noted as a demographic factor, however missing information from two participants, and ranged from 2 weeks to 1.5 year (78 weeks), (mean 4 weeks) (II). No consensus in the literature are found when preoperative anxiety ought to be measured or assessed, as researchers conduct this at different times; e.g. assessing the day before surgery (Yilmaz et al. 2012), assessing the day of the surgery (Wetsch et al. 2009, Mitchell 2010), or just stated as e.g. assessing “before surgery” (Ay et al. 2014). Psychosocial state may be affected as soon as...
the surgical procedure is planned (Jawaid et al. 2007), thought this seems not to be taken into account due to the available literature. However, anxiety and fear during the waiting period is shown to be highest at home, regarding inpatients waiting for coronary artery bypass grafting (Koivula et al. 2002). No differences are found in the literature regarding psychological status while waiting for day surgery, or to be an inpatient. From the individuals perspective there is no differences in response to any life events (Lazarus & Folkman 1984), which thus may include patients’ responses while waiting for different surgeries. Patients may perceive the day of surgery as the biggest, and the most threatening day in their lives, regardless type of surgery (Jawaid et al. 2007). Research about beneficial strategies to support different emotional state are needed, as emotional health have influence on the physical recovery after surgery (Ayers et al. 2013).

Interesting is that nearly half of the participants were feeling calm in study I, as 70 patients’ stated current mood as “To feel calm”, versus 91 patients’ who stated “To not feel calm” before day surgery. However, the participants were not able to express any other experiences for current mood in study I and regarding the two chosen statements, no similarities are found in the literature. This may be due to that in preoperative research, psychological state are commonly conducted from the view of preoperative anxiety (Bailey 2010). In study II, all participants verbally described how they experienced mood during the waiting and the main category; feeling hope about regaining health as a help to balance mood was formulated to illustrate the participants’ experiences. Little is found in the literature regarding to feel calm or to experience a harmonious mood, but some similarities within the factors described by the participants’ who felt calm (I) or experienced a harmonious mood are found (II). To have earlier positive experience of surgery influence mood and may be in coherence with the literature, as earlier positive experience reduce the degree of anxiety (Caumo et al. 2001, Jlala et al. 2010, Mavridou et al. 2013, Nigussie et al. 2014). In study I, there was also a statically significant difference in regards to previous positive experience, as a higher proportion of participants assessed themselves as calm (n= 63) versus not calm (n= 7), p < .01.

Statements in “Feeling trust and confidence” (II) were found to have similarities within “Security”, “Caring”, and “Information” (I), were partici-
pants described to feel trust and to have faith in the health care staff. This is supported by Lee et al. (2015), as to be the most supportive factors to reduce anxiety both before and after surgery. Sweden is a very secular country; and only one participant described that except the trust and to have faith in the health care staff, the participants also referred to religious beliefs (II). However, religious beliefs might have different influence on patients’ preoperative psychological state in other countries. Due to Nigussie et al. (2014), the most common effective way of reducing anxiety mentioned by patients is religious beliefs. Jawaid et al. (2007) report that patients’ stating as being Muslim, they have faith in Allah and have absolutely no worries about surgery or anaesthesia.

Statements in the categories; “Expectations” (I), and “Experiencing expectation” (II) had many similarities. More and deeper statements were described in study II as it was possible to ask follow-up questions in study II, but not in study I. Expectations are a crucial influencing factor, and positive expectations are reported to correlate with improved patient-reported outcomes as well as patients report less pain compared with patients with negative preoperative expectations (Waljee et al. 2014).

Fear due to the situation and environment is reported to affect preoperative anxiety (Kindler et al. 2000, Jawaid et al. 2007, Oztin et al. 2007, Mitchell 2008, 2009, Pritchard 2009, Nigussie et al. 2014). This were labelled within the factors described to not feel calm (I) due to “The situation”, and also in either of the sub-categories due to experiencing shifting mood (II). The choice of sub-category in study II depended on the descriptions from the participant, as they described which influence an experience had had, e.g.; if narrating about being influenced by the environment, this either could make the person to “Shifting between expectancy and anxiety”, “Feeling vulnerable and exposed”, or “Feeling uncertainty”.

Similar concerns regarding statements were found in “Anaesthesia and recovery” to not feel calm (I) and in “Feeling vulnerable and exposed” and “Feeling uncertainty” to contribute to experiencing shifting mood (II). Issues about recovery were described as to feel uncertainty. Concerns about anaesthesia, unconsciousness and potentially negative intraoperative experiences are reported as highly anxiety-provoking (Mitchell 2010), as well as to feel anxiety due to have anaesthesia, being unconscious, and
expecting related pain (Braden et al. 2009) with similarities to data addressing emotional vulnerability described by Gilmartin & Wright (2008).

Postoperative worries described by participants in study II, were defined as “Feeling uncertainty”, labelled as “Outcome of surgery” in study I. The probability of postoperative complications are found to be described as being influenced by patient characteristics, diagnosis, and type of procedure (Manilich et al. 2013) and that a negative psychological state causes an increase in postoperative pain (Jawaid et al. 2007, Vaughn et al. 2007, Bailey 2010, Ali et al. 2014). The risk of having a postoperative infection were 9.6% in Sweden, 2014 (Estling et al. 2014) and an issue frequently discussed in the news media, surprisingly only one person (study I) mentioned having fears about postoperative infections. Studies have rarely described the explicit complications patients fear regarding possible postoperative complications; however, participants were asked to rank different default complications in a study by Burkle et al. (2014).

In both studies patients described former negative experiences to affect to not feel calm (I), or experiencing a shifting mood (II). Previous episodes included negative experiences with former surgery and anaesthesia or within health care. This connection has been described in former studies (Kindler et al. 2000, Mitchell 2010, Nigussie et al. 2014). Conversely, four of the participants had negative experiences that had affected them, but they emphasized that this history did not make them feel anxiety about the current situation (II). Two of the participants had experienced awareness during surgery, and two had an adverse event (respectively being awake during intubation and having an undiscovered genetic disorder that meant not being able to break down anaesthetics). They reported that because they had been listened to and had a dialogue with anaesthesia doctors, they felt reassured that this would not happen again. This reaction may also be due to their personal coping styles (Krohne et al. 1996).

Participants said that they experienced stress due to time pressure, and this contributed to feeling uncertainty (II), which is in accordance with findings by Wetsch et al. (2009) and Yilmaz et al. (2012). Feelings of uncertainty are a major concern for patients with a long waiting time (Fitzsimons et al. 2003). However, the connection between preoperative anxiety and uncertainty is a topic not yet thoroughly described (Feuchtinger et al. 2014). Statements for “Nausea and pain” (I) and describing
fears of not knowing the intensity of postoperative pain (II also contributed to feeling uncertainty. However, few participants in study II mentioned fear of nausea. Interestingly, a new instrument has been developed and tested for validity and reliability for assessing different surgical fear. The instrument is described as consisting of two subscales: fear of the short-term and fear of the long-term consequences of surgery (Theunissen et al. 2014).

Furthermore, lack of information (II) was described to contribute to “Feeling uncertainty”. Experiencing ignorance about information regarding the surgical procedure is a known trigger for anxiety (Jawaid et al. 2007, Jangland et al. 2009, Bailey 2010), and information is an important factor in reducing preoperative anxiety (Mitchell 1997, Kiyohara et al. 2004, Mitchell 2005, Mitchell 2007, Bailey 2010, Guo et al. 2012, Burkle et al. 2014, Nigussie et al. 2014). Information is of great importance because not having been given the option to participate, not being met in a professional manner, and not receiving nursing or practical support are all reflected in submitted complaints to the Patients’ Advisory Committee (Jangland et al. 2009). Experiencing preoperative anxiety also decreases patient satisfaction with the overall perioperative experience (Caumo et al. 2001, Mitchell 2010).

However, some people want a lot of information while others prefer less information because information may increase their anxiety (Ivarsson et al. 2005, Bailey 2010). One factor may be coping styles; vigilant copers prefer information because limited information will cause anxiety, while avoidance copers prefer limited information because too much information may cause them anxiety (Krohne et al. 1996). However, patients seek answers to many different questions; therefore, the interaction among patient, nurse, and anaesthetist in surgery is very important (Mitchell 2009) including the interaction with other involved health care staff. The ideal method of providing preoperative information that alleviates patients’ anxiety is yet unknown (Jlala et al. 2010). Therefore it is important that health care professionals focus on having a dialogue with patients, even though a brief stay may limit health care staff opportunities to give patients good and professional care (Mitchell 2003a, Kindler et al. 2005, Fraczyk & Godfrey 2010, Mitchell 2010). Patients who are listened to, treated respectfully, and shown concern feel more secure when participating and invited to play an active role (Åkesdotter-Gustavsson et al. 2010).
Good communication may contribute to achieve high patient satisfaction, if health care providers have the opportunity to set aside adequate time (Mitchell 2010, Mitchell 2012a, Mitchell 2013). Patient satisfaction should assume greater importance. To maintain high patient satisfaction, several aspects related to preoperative assessment thus need to be developed to achieve high levels of patient satisfaction in which attention to patients’ individual needs must be a priority (Fraczyk & Godfrey 2010). To better support patients this requires assessing emotional state, educational level, and knowledge expectations before surgery (Johnson et al. 2014).

The need for preoperative development in day surgery is well described in the literature (Mitchell 2003a, Jawaid et al. 2007, Gilmartin & Wright 2008, Pritchard 2009, Wilson et al. 2015), and knowledge about experiences from different preoperative psychological states thus may be used to improve preoperative management and towards the development of person-centred care. Burkle et al. (2014) discuss the importance in health care of asking about and addressing patients’ fears, as well as improving and developing a personalized approach providing information and allaying anxiety. When there is understanding about the patient’s perspective, there is an opportunity to attend to the person’s experiences (Susleck et al. 2007) and this in coherence with the aims of person-centred care to improve health outcomes (Robinson et al. 2008, Eldh et al. 2010).

Gender

More women (n=50) than men (n=41) reported not feeling calm before surgery (I), in agreement with other studies (Moerman et al. 1996, Kindler et al. 2000, Caumo et al. 2001, Jawaid et al. 2007, Masood et al. 2009, Mitchell 2012b, Mavridou et al. 2013, Nigussie et al. 2014). However, preoperative anxiety and gender differences were not identified in other studies (Boker et al. 2002, Kiyohara et al. 2004).

Among participants who did not feel calm (n=91), men (n=41) graded anxiety on NRS at a mean 2.9 (range 1–10), and women (n=50) graded mean anxiety at 4.0 (range 1–10), though the difference was not statistically significant. The cause of any gender differences could be biological factors, such as genetic factors, physiological reactivity, and hormonal influences (McLean & Anderson 2009). Slight differences were observed for some individual questions among patients of different sex and previous
experience of anaesthesia (Mavridou et al. 2013). Participants (I, II) (n=181) described their experiences using common words and everyday language. Gender differences within interviews are not described in the literature; however, Babcock and Laschever (2003), comparing managers, found that men were much less likely than women to share information. Wang & Hsieh (2007) describes that when expressing emotions, both men and women chose the most salient emotion words, e.g., antonyms such as sadness and happiness. Further, that some of the gender-based differences are morphological, and female participants tend to use adjectives and verbs and men to use nouns. Gender differences should be given greater consideration because women and men may have different preferences (Mitchell 2012b).

Differences regarding gender, age, and level of anxiety were not investigated (I- II); however, age can contribute to predicting preoperative anxiety levels (Jafar & Khan 2009). Education level was not investigated (I) but was described as a sociodemographic factor (II). Low education level has been observed as a factor in preoperative anxiety (Kiyohara et al. 2004, Oztin et al. 2007, Nigussie et al. 2014).

Methodological considerations
One of the strengths in this thesis was the use of mixed methods to provide useful answers to research questions and an understanding about the world (Creswell & Plano 2006) from the participants’ view and experiences of the phenomenon (Patton 2002, Klassen et al. 2012), combined with analysing quantitative data to generalize observations of the population (Klassen et al. 2012). Other strengths are the chosen methods, selected to provide an understanding about the phenomenon from the perspective of those experiencing it, including an open-ended question (I) to examine in detail and in depth (Graneheim & Lundman 2004) and semi-structured interviews (II) (Patton 2002, Klassen et al. 2012). Inductive content analysis was chosen because knowledge about the phenomenon is fragmented (II) (Elo & Kyngäs 2008). Strengths of the inductive content analysis are that it allows the discovery of subtleties and complexities in a complex phenomenon (Elo et al. 2014). In both studies (I and II), a pilot study was initially conducted, which is a strength. The participants did not misinterpret the questions in either pilot study, but participants may vary regarding their understanding or interpretation of particular questions (Austin et al. 1998).
A major strength is that the recruited participants (I, II) represent various properties, e.g., age, sex, and type of surgery, to both ensure and increase credibility by the possibility of illuminating the results from a variety of perspectives (Graneheim & Lundman 2004). The studies provide a clear description of the interviews and the context, as well as the selection, participant characteristics, data collection, and how the process of analysis was conducted (I, II) (Graneheim & Lundman 2004, Elo et al. 2014). The participants (I, II) were appropriate because they represent and have knowledge about the research topic (Elo et al. 2014). However, the participants in both studies were waiting for a planned day surgery in a single hospital in central Sweden. On the other hand, participants were recruited from four different surgical departments. Participants with a potential cancer diagnosis where included in study I but were excluded in study II. They were not asked to participate in study II because of ethical considerations, as there were limited opportunities for supportive conversation according to their potential cancer diagnosis.

All authors who conducted studies I and II have a pre-existing understanding of anaesthesia and the perioperative patient, which could be regarded as both strength and a weakness. Because quotes expose the respondents’ levels of emotion and the way in which they have organized the world, as well as the respondents’ thoughts about what is happening, the experiences, basic perceptions (Patton 2002), and representative quotations from the participants (I, II) are used to illustrate the findings, provide understanding, and describe the phenomena in rich detail to enhance strength (Graneheim & Lundman 2004, Elo et al. 2014), as they are situated and embedded in the context.

The headings “I feel calm” and “I do not feel calm” (I) were chosen because information about imminent pain and worry may result in negative effects (Lang et al. 2005) and negative emotional words can trigger an undesirable nocebo effect (Barsky et al. 2002, Lang et al. 2005). Although the participants could have written down current moods other than the two selectable choices, they did not choose to do so. This might be due to response bias because individuals tend to respond a certain way and don’t want to obstruct the researcher (Sedgwick 2013).

During the content analysis (I), the data were objectively and systematically analysed, and to obtain internal validity, the co-authors independently
assessed the statements. To ensure credibility, the third author read 20 randomly selected statements. The authors were unanimous in the discussions and agreements about categories (Graneheim & Lundman 2004). A strength is that the process of the content analysis is clearly described, and the findings are presented to ensure that the intended phenomena are represented (I) (Elo et al. 2014). However, the author gives only suggestions about transferability because it is the reader’s decision about whether or not the findings may be transferable to another context (Graneheim & Lundman 2004).

Semi-structured interviews were chosen to capture the participants’ own words about preoperative moods (II) (Elo 2008). Strength is that all interviews were audio-recorded and transcribed in study II. The author has strived to achieve trustworthiness during the three phases in the inductive content analysis. However, in any qualitative report, the content is also a representation by the author (Elo et al. 2014). In pursuit of trustworthiness, the analysis and results are described with as many details as possible to demonstrate the link between the data and the results (Elo et al. 2014). To obtain internal validity, the co-authors validated the selected categories using six of the interviews (Elo & Kyngäs 2008).

To what extent the researcher’s presence during the gathering of data affected the participants’ responses might be an unavoidable weakness (Patton 2002). Regarding the order of the studies, one aim in the first study was to explore whether any participants felt calm or not before day surgery because the incidence of preoperative anxiety in the literature varies in a range of 60–80% (Jlala et al. 2010). If very few participants had reported feeling calm, the described contributing factors thus might have been sparse. The author determined that it would have been more difficult to capture participants who might feel calm in the following qualitative study using a manageable number of interviews.

When judging the quality of findings, the factor is whether new insights have been provided regarding the phenomenon; if so, the study should have increased the understanding of particular phenomena (Krippendorff 2004).
Statistical analysis
Abstract phenomena cannot be directly measured whereas questionnaires are often used to measure indications of the phenomenon and to produce a number as a measure of that symptom. However, there are no standardized rules for the construction of rating scales (Svensson 2001). The NRS is a segmented numeric version of the visual analogue scale (Hawker et al. 2011), and the preferred choice because it is neither complex to use nor time consuming for the participants (I).

Participants who were not feeling calm measured their degree of anxiety on the NRS, with results presented as arithmetic means and ranges, although it was referred to as an ordinal scale. To analyse differences in the ordinal data on the NRS, the non-parametric Mann–Whitney U test was used to test the differences between the groups. A P value of less than 0.05 was considered statistically significant. SPSS for Windows was used for all statistical analysis (SPSS Inc., Chicago, IL). The number of statements in study I and frequencies were calculated and presented for each category, and the differences between the frequencies of statements and the level of anxiety between the two groups were analysed using the Mann–Whitney U test.

Time differences
Participants (n=163) were informed about the estimated time, approximately 10 minutes, needed to answer the questionnaire; however, they were allowed to take as much time they needed before handing in the form. Very few participants needed more than the estimated time (I). Participants (n=20) also were informed about the estimated time for the interview (approximately 30–60 minutes) (II). The time for interviews was an average of 40 minutes for women (n=6) and 27 minutes for men (n=12) (II). This is in accordance with the guidelines for a suitable interview time regarding 20 interviews (Patton 2002). The first author perceived that some of the participants who experienced being in a harmonious mood were less likely to describe their feelings in an exhaustive way. Yet, no matter the interview length, what the interviewee conveys is what is important. A long interview might include non-relevant information while a short interview can contain important information. A frequent occurrence could indicate greater importance but also might reflect greater willingness or ability to talk at length about the topic (Marks & Yardley 2004).
CONCLUSION

This thesis has contributed regarding knowledge about positive moods while waiting for surgery and anaesthesia; patients may feel calm and in a harmonious mood or experience a shifting mood but still feel hope about regaining health. Earlier positive experiences, feelings of trust and expectations contribute to a harmonious mood and to feel calm. However, a previous negative experience with surgery, anaesthesia, or health care might affect patients negatively because of the influence on the patients’ overall well-being but also have negative effects during the perioperative period.

Therefore, the new insights about patients’ experiences while waiting for a day surgery and anaesthesia could be used to improve understanding about the preoperative state of moods. They also may contribute to developing strategies to reduce feelings of anxiety for patients experiencing preoperative anxiety as well as support strategies to benefit patients while waiting for day surgery regardless of psychological state.

The hope of regaining health seems to be an important coping strategy for patients during waiting. Knowledge about preoperative moods has implications both for preoperative nursing and to health care staff involved in day surgery. To manage preoperative anxiety, a combination of consistent strategies and developing interpersonal skills may be a successful psychoeducational plan. However, how “hope” may be used to ease a patient’s psychological state during waiting requires further clinical exploration.
CLINICAL IMPLICATIONS

The results may have implications for preoperative care because they underline the importance of understanding and acting based on different preoperative moods. This knowledge may be important to medical staff because hope can be used as a strategy to support patients in managing emotions during preoperative waiting.

Extended knowledge about preoperative moods may also be useful for considering the need to improve individual support and preoperative information during the waiting period.

Individual preoperative care should provide emotional support, strive to decrease anxiety, and give the individual person a positive experience of undergoing surgery. Health care staff may ask patients about the reasons behind their current mood, such as previous positive or negative experiences of undergoing surgery, and enable patients to share what they have been through during the waiting period.

Providing structural information is an additional and essential factor because lack of information is one of the main complaints from patients. Different levels of information are needed because of individual preferences. In addition to improving the preoperative meeting, a first step toward developing an innovative solution to providing information could be using a national website as a complement to information provided by health care. On a website with easy access, information could be displayed at different levels, describing the perioperative phases and presenting useful coping strategies to help patients manage preoperative anxiety.

There is a need, however, for additional investigations about preoperative moods to further enhance knowledge. To extend and deepen this knowledge, it is important to study preoperative mood from several angles using different methods, which is especially desirable if focusing on the patients’ perspectives.
FURTHER RESEARCH

- Further research is recommended to enhance knowledge about factors that influence the preoperative state of mind during waiting as well as to confirm factors described in this thesis.

- Further research might explore the needs that patients describe as helping them feel at ease during waiting, as well as being in the preoperative situation at the hospital.

- Research also could explore implementing consistent strategies for developing interpersonal skills in communicating with patients regarding preoperative mood effects and to support patients in need of coping strategies.

- Finally, it is worthwhile to investigate if information delivered via the Internet could contribute to a patient’s preoperative mood before surgery.
Personers upplevelser av preoperativa sinnesstämningar under väntan på ett planerat dagkirurgiskt ingrepp.

Bakgrund
Med begreppet perioperativ period menas de tre faserna kring ett kirurgiskt ingrepp: preoperativ (före), intraoperativ (under) och postoperativ (efter). Den preoperativa fasen är från det att patienten fått besked om sin kirurgiska behandling fram tills patienten förs över till operationsbädden. Den intraoperativa fasen är tiden under det kirurgiska ingreppet och den postoperativa fasen tiden från det att patientens kirurgiska ingrepp är avslutat på operationssalen, fram till dess att patienten är färdigbehandlad.

Att preoperativt känna oro inför ett kirurgiskt ingrepp och anestesi är vanligt. Studier har visat att mellan 11 % - 80 % vuxna känner oro. Den preoperativ oron börjar så snart ingrepp planeras och är högst på operationsdagen enligt tidigare studier. Flera studier har påvisat könsskillnader i samband med väntan inför operation, kvinnor känner mer oro än män.

Att uppleva fysisk och psykisk stress, kan orsaka negativa effekter både före, under och efter operationen eftersom de påverka patienten både fysiologiskt och psykologiskt. Under den perioperativa perioden kan personen känna oro och rädsla för framtida komplikationer och också uppleva sig som såbar. I studier har visat att oro också påverkar personer negativt gällande välbefinnande, återhämtning, sårläkning samt medföra en förlängd vistelse på sjukhuset. Man kan även ha ett ökat behov av sömmedel i samband med anestesi samt ett ökat behov av smärtstillande efter uppvaknandet. I tidigare studier har vuxna personer värderat följande högst; oro för det okända, oro för illamående, tidigare negativa erfarenheter att känna oro för sitt liv samt att man beskriver att den egna personligheten inverkar.


Det behövs mer kunskap kring vilka fler preoperativa sinnesstämningar som förekommer, och hur kunskap om dessa kan användas för att minska oro före en operation.

**Syfte**

Syftet med studierna är att beskriva hur personer upplever väntetiden inför en dagkirurgisk operation, och om personer inför ingreppet känner sig lugna eller inte lugna, samt vilka orsaker personerna beskriver som bidrar till deras sinnesstämning.

**Design**

Studie I genomfördes med en kvalitativ och kvantitativ metod, och i studie II har en kvalitativ beskrivande design använts.
Metod


Analys
För den kvantitiva delen i studie I användes icke-parametrisk, beskrivande och analytisk statistik och för den kvalitativa delen genomfördes en tematisk innehållsanalys. I studie II genomfördes en kvalitativ innehållsanalys med induktiv ansats.

Resultat
Sammanlagt deltog 183 informanter. I studie I togs två personer bort som missuppfattat studieformuläret. Av de 181 deltagarna var 96 män och 85 kvinnor mellan 17-88 år (mdl 58,5 år). I studie I var deltagarna klassificerade till ASA I eller ASA II, i studie II hade inte alla deltagare hunnit bli ASA-klassificerade i samband med intervjuutifallet, men de som var klassificerade befanns mellan ASA I och ASA III. Resultatet i studierna visade att 70 deltagare (43 %) av de 161 deltagarna i studie I kände sig helt lugna. Det kunde säkerställas statistiskt att en större andel av männen var bland dessa 70 (n= 43). Under innehållsanalysen urskildes sammanlagt 10 olika kategorier, fem kategorier för de som kände sig lugna, respektive fem för de som inte kände sig lugna. Deltagarna beskrev, att de kände sig lugna av att ha tidigare positive erfarenheter av operation och anestesi, att känna sig säker, att personalen visat omtanke, att vara väl informerad
samt att ha positiva förväntningar. Fler av deltagarna i gruppen “Jag känner mig helt lugn” hade tidigare erfarenhet av att genomgå en anestesi/operation, n= 63 (90 %) jämfört med att inte ha någon tidigare erfarenhet, n=7 (10 %), skillnaden kunde säkerställas statistiskt.

Deltagare som beskrev att de inte kände sig lugna berättade om, att det berodde på att känna oro för situationen, oro för resultatet av operationen, oro för anestesi och den postoperativa perioden, oro för småra och illamående samt att ha tidigare (negativa) erfarenheter av operation och anestesi. Bland deltagarna som angav “Jag känner mig inte helt lugn”, beskrev flest, 50 deltagare (n= 91), att orsaken var “oro för situation” d.v.s., oro för vad som skulle kunna komma att ske i framtiden. De 50 deltagare angav sin oro till 5,4 (Range 1-10) på NRS skalan. För samtliga kategorier i gruppen “Jag känner mig inte helt lugn” angavs oro till 3,5 på NRS skalan (Range 1-10). I studie II illustreras resultatet av en huvudkategori hur personer beskriver sinnesstämning under väntan på en dagkirurgisk operation; “att känna hopp om att återfå hälsa som en hjälp för att balansera sinnesstämning”. Två kategorier urskildes, dels “att uppleva en harmonisk sinnesstämning” och dels “att uppleva en skiftande sinnesstämning”. Tre av de sex underkategorierna utgör exempel på att under väntetiden uppleva en stabil sinnesstämning genom; “att vara lugn och tillfreds trots en viss oro och rädsla”, “att uppleva förväntan” samt “att känna förtröstan och förtroende”, medan tre underkategorierna att utgör exempel på att under väntetiden uppleva en skiftande sinnesstämning genom att; “att pendla mellan förväntan och oro”, “att känna sig utsatta och utelämnad” samt “att uppleva osäkerhet”. Oavsett sinnesstämning beskrev informanterna att under väntetiden känna hopp om att återfå hälsa, var till hjälp för att ha en sinnesstämning i balans.

**Slutsats**

Studien bidrar till att öka kunskapen om preoperativa sinnesstämningar. Resultatet beskriver hur personer kan uppleva sinnesstämningar under väntetiden inför ett dagkirurgiskt ingrepp, samt att det förutom preoperativ oro också finns andra preoperativa sinnesstämningar. Oavsett sinnesstämning kunde personer under väntetiden uppleva att hopp om att återfå hälsa var en hjälp för att kunna balansera mellan olika sinnesstämningar. Personer som upplevde en harmonisk sinnesstämning, beskrev att de hade förmåga att balansera negativa tankar. Personer som upplevde att sinnesstämningen skifte mellan att känna sig orolig och lugn, beskrev svårig-
heter med att kunna balansera sina negativa tankar. Omvårdnadsåtgärder bör utvecklas som lyfter fram och stödjer coping strategier som den preoperativa personen har fördel av under väntetiden. Där man kan lära av de personer som känner sig lugna preoperativt.
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