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Generating theory from the client’s experience of same day laparoscopic sterilisation

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Abstract

A grounded theory methodology was used to generate theory about the experiences of women undergoing laparoscopic sterilisation in a day surgery unit. Theories were developed on the role of client education in relieving anxiety, and the importance of privacy in all stages of client care. The grounded theory approach offered a client-centered model for day surgery planning.

Keywords: Day surgery, laparoscopic sterilisation, grounded theory, client experiences.

Introduction

Day surgery in Australia has increased in frequency in the last 10 years to become the most popular form of surgical pathway (Australian Institute for Health and Welfare, 2000). This form of surgery now dominates many hospitals’ surgical lists and according to the Australian Institute for Health and Welfare (2000) accounted for approximately 48% of all surgical admissions in 1998.

Too often in the search for better practice and in the ever increasing rationalisation of services (see Stevens 1999), the voice that counts most can be overlooked. The core business of a day surgery unit (DSU) is caring for clients. Therefore, knowledge of the client's experience is central to planning of staff development and service improvements. Most DSUs have as part of their quality programs a process of service evaluation. As well a number of studies have been published that examine various aspects of the DSU experience (Hankshaw 1994; Oberle et al., 1994; Mason 1998; Roberts et al., 1995). These studies rely heavily on quantitatively based client satisfaction surveys that, says Silverman (1989:23):‘informs us more about the researcher than the experiences of the researched.’ There exists a gap in the literature that examines the day surgery experience from the perspective of the client. The aim of this research therefore is to build theory about the day surgery experience by examining the perceptions of group of women undergoing the same procedure; laparoscopic sterilisation
According to Silverman (1989) the type of personalised information that comes from interpretive research has been much maligned for its lack of scientific rigour. Self-perceptions of individual's experiences, that is what the client tells us they believe is important, must complement the discourse on, and research into, the performance of health services. The conception of a health care recipient has evolved in recent decades from that of a doctor’s patient to that of a customer buying a service. As Brennan and Stevens (1998) note: ‘Should we not therefore focus more attention on what they the clients/customers tell us.’

Method
A grounded theory approach, as described by Glaser and Strauss (1967) (but further developed by Strauss and Corbin 1990) was selected to guide this research. Clinical research is dominated by the deductive approach, that is, research that tests a theory by collecting and analysing data. Grounded theory uses an inductive approach allowing the data to formulate the theory. Grounded theory attempts to build theory that is solely generated from data collected to examine a specific issue.

Grounded theory appears to be an appropriate approach in this investigation because: 1) there is a perceived need within the industry to generate theory inductively that might be tested deductively as a way of building a significant body of knowledge around this growing area of nursing focus; 2) the topic area requires interpretive investigations (to which grounded theory is well suited according to Sarantarkos 1993 and Kelleher 1990) to understand the subjective experiences of clients.

Grounded theory research is more resource intensive than simpler quantitative approaches and as such might be a prohibitive research framework for day surgery units per se. This study was the result of collaboration between staff of a public hospital whose core business is caring and nurse academics at a local university whose core business is research.

The Participants
Merton et al., (1990) state that initial decisions for selection of participants for this approach should be based on the interviewees involvement in a particular situation and their capacity to provide relevant information to the intended inquiry. Grounded theory uses a type of sampling procedure called theoretical sampling. According to Strauss and Corbin (1990), theoretical sampling is
characterised by the collection of data that is controlled by emerging theory and the point of saturation. A point of saturation is reached when no new themes or issues emerge about a topic area regardless of the analysis of further data (Strauss and Corbin 1990). Those themes and issues that are already established through analysis can be, however, reinforced by subsequent addition of data.

The intended participants in this study were selected because they could inform us about their perception of a day surgery experience. A group of women experiencing the same day surgery procedure were the desired target group. By standardising the procedure that the women were experiencing it was anticipated that many extraneous variables related to differences in procedures and surgeons could be avoided. The study focussed on women who were undergoing sterilisation by laparoscopy. Though the experiences of this cohort would be biased due to the specific nature of the procedure it was anticipated that their data would reflect in many ways the overall day surgery experience as well as the particular idiosyncrasies related to sterilisation by laparoscopy.

Potential participants were telephoned in advanced and asked to join the target group for the research. Those who agreed to participate were then on admission to day surgery more fully informed of the study's intentions. The participants were informed that one week following their procedure a researcher would ring them to ask them about their experience (approval was obtained from the institutions’ human research ethics committees prior to commencement of the study).

**Data gathering and analysis**

Some demographic data were collected on admission and gaining consent such as age, occupation, living arrangements and the number of children. Telephone interviews were then conducted one week after the procedure. A semi-structured interview was chosen as the data collection method as it provided a balance between the quest for specific information and freely offered contributions from the participants. An interview schedule was developed to prompt responses if research focus areas were not dealt with by the participant-driven conversation within the interview. In most cases however, the data required was obtained by just asking the participants to talk about their day surgery experience.
In order to obtain specific information about levels of pain throughout the interview when participants mentioned pain as an issue they were asked to quantify their perception on a scale of one to ten, where one represented no pain and ten the most extreme level pain.

The telephone interviews were recorded. As each transcript was analysed, central themes were identified and categories of themes derived. Transcripts were then compared with each subsequent interview. According to Strauss and Corbin (1990), in traditional grounded theory analysis techniques, each transcript analysed can be used to inform the researcher about the directions and questions required for the succeeding interviews. In this project, however, the responses required very little refocusing as central themes and saturation began to occur very early in the process. In addition, it is common in the analysis of data using grounded theory techniques to show the participant the completed transcript and analysis and to ask for comment on the validity of its interpretation. This validating technique was not adhered to because of resource restrictions on the part of the researchers. A validating technique involving an external audit, adapted from Happel (1996), was employed instead.

An experienced researcher at the completion of each transcription and analysis conducted an external audit. The auditor’s role was to act as a second judge by undertaking an analysis of the transcription and then comparing it with that of the primary researcher. The researcher and auditor also identified a number of quotations that could be used as exemplars of the emerging themes. As each interview was analysed, refinements to the thematic categories occurred as their strengths and weaknesses evolved. Only those themes, categories, quotations and points of analytical saturation deemed equivalent by comparison of analyses were used in this final report.

**Results**

*The participants*

Of the sixteen women contacted all agreed to be interviewed. The average age of the women was 33 years with a range from 26 to 42 years and a standard deviation of 3 years. Thirteen participants were occupied with house duties and two were employed outside the home. All women had at least one child. The average number of children was 2.5 and the range 1 to 4 children. The age range of the
children was 12 months to 17 years. The majority of children however (n=20) were under the age of 4 years. Fourteen of the 16 women had partners that they lived with and who shared the household and parenting duties.

**Emerging framework**

Each category emerging from the data contained a number of themes. The limitations set by the size of this report restricts the presentation of findings to just a few outstanding themes and the theories that they generated. The categories that emerged reflected the main phases of the surgical experience and thus the results are presented in the following order: the preoperative period, the surgical period, the immediate post operative period, on discharge and at home.

**Pre-operative period**

**Expectation of pain**

Common to all interviewees was an expression of some expectation of pain from the procedure. Expressions of pain were quantified as noted in the methods section. The average pain expectation on the 10-point scale was 5.5 with a range from 1-8 and a standard deviation (SD) of 2. The expectation of pain was one of the causes of increased anxiety. Though their doctors had assured all participants that the pain would be minimal, many were anxious as typified by the following:

*I had only been in hospital to have children so I did not know what to expect. The Dr said it would not hurt but I hate needles and having children, my only other experience really hurt. So I really did not believe him.*

**Doing the right thing**

The pre-operative stage appeared to offer the women an opportunity to reflect on their decision to go ahead with the procedure. Eight of the women noted that the decision had a very positive effect on them. They felt that the relief of knowing that they would not become pregnant again would outweigh any discomfort that followed. Six of the women, on the other hand, commented that they felt a little anxious at the preoperative period because they were wondering if they were doing the right thing in giving up their fertility.
I suddenly thought well this it, am I sure I don’t want to have any more kids? I did not know the answer any more but I felt obligated to go through with the process because so many people expected it. It’s worked out just fine but I felt a little railroaded right at the last moment and I did not feel I could say anything about it.

Anxiety relief
Anxiety was a common theme to evolve from the interviews. All participants commented on their anxiety state, even if it was to say they did not feel anxious. For the majority (n=13) overall anxiety was said to be minimal. The theme emerged indicating that they had been well informed about what to expect by their doctors and the nurses and as one participant stated: ‘the ends justified the means’. As noted above anxiety emerged as an issue regarding two specific concerns: pain and whether or not they were doing the right thing.

Privacy
Privacy was an issue for several clients in the pre-operative period. The room used to interview clients being admitted for day surgery for the purposes of a nursing assessment/history was also used by visitors waiting to see other clients. Some clients felt very uncomfortable having to give personal information to the admitting nurse in earshot and full view of visitors and other day surgery clients and several commented upon the need for a separate room for interviewing the clients.

The Surgical Period
The most common comment of participants regarding the surgical period was that they could not remember much of what happened during the procedure. However, two significant themes emerged from the little they could recall.

Privacy
Privacy during the procedure was an issue that emerged from the data and was typified by the following comment:
The feeling of being naked and awake during the procedure was disturbing: I did not like having no clothes on with all those people around. I am a bit overweight and find that was the worst part of the overall experience.

**Pain**

The lack of pain emerged as another theme from the data regarding the procedure phase. Many participants were surprised, especially those who were anxious about pain in the preoperative period. The following response was typical:

... apart from the needles, which I hate, there was no pain. Though seeing those needles coming at you can make you feel sick.

**The Post-operative Recovery Period**

The recovery phase was dominated by themes related to pain, nausea and vomiting, and privacy.

**Privacy during pain and nausea.**

Pain remained a dominant theme in the analysis of the post-operative period. It was raised as an issue either because there was too much of it or the clients were surprised that the pain was less than expected. The average pain score was three (out of ten) with a range of 1-6 and a SD of 1.5. Most participants received some form of analgesia upon waking (n=15). Three participants vomited soon after waking and were administered antiemetic drug treatments. However, 11 noted that they felt mildly nauseous and were fearful of vomiting at some stage even though they did not tell the nurse. Privacy was a significant issue during these events. It seems that the pain, nausea and vomiting increased in significance as a bad experience for the women because of the lack of privacy in the recovery room. For example: from one woman who vomited:

I was as sick as a dog, chucked everywhere. Every time I vomited the pain knifed me. The nurses were great did all the things to settle me down. I felt good fairly soon but so embarrassed. You kind of expect a little something after you wake for
your troubles. I only had a curtain around me. I was so embarrassed everyone in the room knew it was me hurling.

and from one who was nauseous:

No way was I going to throw up in that room. In my gown surrounded by only a flimsy curtain. A girl's got to retain some dignity.

**On discharge**
The major theme to emerge from the data regarding discharge was anxiety about coping at home. It seemed that such a major procedure had an anticlimax to it by being home that same afternoon and undertaking normal duties. Those who had partners were picked up and taken home by them. Those with younger children appeared to be the most anxious. For example:

I wanted to stay a bit longer because I did not know how I was going to cope with the kids when I got home. Hubbies useless I will still have to get them dinner and take them to bed.

Pain on discharge was minimal for most with an average pain score of 2.5. However, many commented that they were anxious about what would happen if they experienced severe pain while at home. They were all discharged and returned home that day and in hindsight had much of their anxiety relieved because of the nurses’ ability to provide information about what to do if they got into trouble. Many had also taken the advice offered on the pre-admission information and arranged for help on that day. Baby-sitting was seen as an especially effective anxiety reducer as exemplified by the following quote:

I was a little anxious that when I got home the pain would come and I would not be able to do anything about it. The nurses gave me some simple instructions about what to look for and what to do. I did feel OK on leaving that nothing would go wrong. I left the kids with mum as they suggested but I was still worried about the pain to be honest.
At Home

Pain at home

Fear of pain was still the major worry for those at home for the first 24 hours or so. However, only one person complained of significant pain occurring during the first 24 hours after discharge. The remainder were yet again surprised at how little pain they actually experienced.

Return to normal

Most suggested that they had to return to normal duties immediately so were not given any opportunity to 'mope around and feel sorry for themselves'. On average the group reported that it took up to three days to actually feel normal again, though one person was still experiencing significant pain one-week post-discharge. All participants had been confident in managing their own analgesia with panadol or panadol forte.

Hubby a help or a hindrance

The recovery and return to normal at home was most affected by the quality of support particularly from a partner (though in one case the helper was a mother). If the support was good quality, which included increased child-care and relieving the women of domestic duties for a time then the recovery was reported as being smooth. If the support was not forthcoming then the recovery was reported as being more difficult. One exemplar from each theme follows:

*My stomach muscles were a little sore but X had arranged for the kids to stay at his mums for 3 days and he looked after me. Made me think I should do it again for the break.*

and

*X had to go straight back to work, he was on night shift away at night, asleep in the day. I had to get straight back into it. I thought for the first three days I was a walking zombie but was OK after that. It is not something I would like to do again in a hurry.*
Overall outcomes

The expected outcomes of all participants were that the procedure would be successful with minimal amount of pain and disruption to their normal lives. In all but one case this appears to have been achieved. Overall pain levels were low at all stages. The success of the sterilisation procedure can only be determined by follow-up. Disruption to normal lives appeared to be minimal. Finally every participant commented that the staff were confident and skilful and this helped to improve their experience by reducing anxiety.

Emerging theory

The richness of this data has provides a source from which theory has been generated about the day surgery experience. Some of the theory relates directly to the specific day surgery unit at which this research was undertaken and some to the specific laparoscopic sterilisation procedure. Yet a core remains which is most likely generic day surgery experience. It is on the generic findings from these data that this discussion is primarily focussed.

1. Pre-admission information relieves general anxiety but not specific anxiety

Most of the participants (n=12) noted that their self-perceived anxiety was lower than they had expected. They said that the pre-admission information given to them by doctors and nurses was a significant contributor to their anxiety state. De Jesus et al., (1996) suggested that pre-admission information would have the effect of minimising anxiety in day surgery anxiety. A general anxiety that no harm would come to them and the procedure would be a success was minimised by the pre-admission information.

The anticipation of pain was greater than the reality of it for all participants. All inferred at some point in the interviews that the prospect of pain was a concern. They were anxious about their decision to have themselves sterilised and even as they were being admitted for the procedure they were still dealing with feelings of anxiety related to that decision. It would appear that the information provided in this instance deals well with overall anxiety towards the procedure but there
are specific issues, such as pain and anxiety regarding the wisdom of their decision to be sterilised that the pre-admission information did not address for these participants.

2. Day Surgery is a nurses’ domain

Of some interest was the lack of mention in the interviews about doctors. In only a few cases was the surgeon (n=3) or the anaesthetist (n=1) mentioned in any way. The participants’ dominant perception of the day surgery experience was about the nurses’ work and the nurses’ interactions with them.

3. Short stays have positive and negative effects

In the majority of cases the day surgery experience was a success because it achieved the goal of sterilisation with minimal discomfort and, most importantly for most, a minimal disruption to normal lifestyle. Most women (n=13) were back to a normal life pattern within one day. There were some women (n=2) however, who thought the return home was too quick and thus were provided with a negative overall experience. Both of these participants appeared to have less support at home on their discharge and felt that the return to normal duties was too soon for them. One stated that had she known what she would come home to after the procedure she would have preferred to 'do it the old fashioned way ' because at least she might have had a day or two to rest before returning home to the kids and her housework.

4. Privacy affects nursing assessments

Privacy was a major category arising from the data. The participants were concerned about providing sensitive information to the nurses in the pre-admission phase because others could hear them talking. They also felt embarrassed because they could hear others talking about their problems as well. In surgery and recovery there was concern for modesty. Many women were concerned about other people seeing and hearing them if they were nauseous post-operatively. Such concerns raise the possibility that assessments may be hampered by clients' unwillingness to communicate. If
clients are embarrassed in the admission period are the nurses obtaining all the information that they need to make objective assessment? In recovery do the clients express how they really feel or are they too embarrassed to communicate because of the lack of privacy?

Conclusion
The project set out to examine the theories generated about the day surgery experience from participants undergoing laparoscopic sterilisation. The grounded theory approach informed us that pre-admission information is currently satisfactory to alleviate overall procedural concerns but was inadequate for some of the more specific and personal issues that arose from the process. Theory was generated about privacy issues that might affect the information flow to the nursing staff that assists them to assess the client's condition and determine treatments. Theory was also generated about the day surgery unit being perceived as a nursing rather than medical domain.

The list of theory generated from these data is not complete and readers are encouraged to consider others not identified as they reflect on this article. This project is not claiming to have found facts. It has however, generated theory that might be useful to day surgery units in planning their staff development and DSU design. The research methodology and procedures used in this study, though more resource-intensive, provides far richer data than many of the traditional evaluation surveys and as such may be useful to nurses in DSU as an evaluation tool. Finally, the theory generated from this study and others like it can underpin and provide an objective genesis for future quantitative and qualitative studies into this growing area of care.
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