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## Patients' experiences of sleep in hospital: a qualitative interview study

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## Abstract

Many patients experience sleep disturbances and a reduced quality of sleep while hospitalized. Studies have shown that a person with a disease and/or a bodily injury has an increased need for sleep. Patients' experiences of sleep should govern how sleep disorders should be managed. It is thus necessary to focus upon and describe patients' needs and experiences. The aim of this study was to explore and describe patients' experiences of sleeping in hospital. The study is based on qualitative semi-structured interviews with ten consecutively included patients. The interviews were conducted between October 2010 and March 2011 and both audio recorded and transcribed verbatim. Collected data were analysed by qualitative content analysis. The participants reported physical and psychological experiences that had affected their sleep. Their experiences were categorised using four themes: Bedside manner, Physical factors, Being involved and Integrity. Patients considered that experiencing some degree of control, feeling involved and preserving one's integrity affect sleep during hospitalization. Several factors have an impact on patients' sleep. It is not only physical factors but also psychological factors such as bedside manner and having the opportunity to influence and be involved. The patients' accounts provide a new perspective and open the door to changes in nursing care regarding patients' sleep.

## Keywords

Sleep, patient, experiences, person-centred, nursing care, bedside manner.

## Introduction

Sleep is fundamental to healthy functioning and nurses are at the front-line of night time care, giving them an ideal place from which to help their patients. Many patients experience sleep disruptions and a reduced quality of sleep when they are hospitalized (Reid, 2001). Several studies have shown that disturbed sleep among inpatients is frequent (Lane and East, 2008; Dogan et al, 2004; Tranmer et al, 2003). Studies have shown that a person with a disease and/or a bodily injury has an increased need for sleep (Humphries, 2008; Dunwell, 1995). A reduction in sleep quality for inpatients can affect their ability to concentrate, cause difficulties in managing anxiety, and can contribute to changes in mood (Lane and East, 2008; John et al. 2007). Florence Nightingale described nursing care from a holistic approach and how sleep contributes to the healing process. She cautioned nurses to be aware of unnecessary noise that could disturb the patient's sleep (Nightingale, 1992). Promoting sleep in hospital care is an important measure/intervention for the profession of nursing (Robinson et al, 2005). In earlier studies, the focus has often been on the physical factors influencing patients' sleep (Lane and East, 2008: Southwell and Wistow, 1995; Closs, 1992) while only a few studies

have shown that there are other factors that affect the patients sleep (Tranmer et al, 2003; Lee at al, 2007).

Pellat (2007) describes the importance of the nurse's basic knowledge about sleep and its physiology and suggests that it is essential to assess and take action regarding sleep disruption and/or insomnia. Insomnia can be defined as requiring more than 20 minutes to fall asleep, several awakenings per night and a tendency to wake up early in the morning (Pellatt, 2007). Sleep deprivation is a condition characterized by lack of sleep due to a number of different factors such as stress (Lei et al. 2009). It is this form of deprivation that is often seen in patients being treated in hospital (McMahon, 1994).

The human-being's need for sleep changes through life. An adult individual needs an average of seven to eight hours sleep a night. Insomnia can occur at any time of life, although generally increases with age (Nagel et al. 2003; Bephage, 2005; Reid, 2001). Humans sleep in cycles and these are usually divided into four stages. Stages three and four provide the deep sleep. This part of sleep gives the experience of good sleep quality (Nagel et al. 2003). Human sleep creates a ripple effect on the body's systems. During deep sleep growth hormones that control cell regeneration are secreted and the immune system is activated. Wounds are healed by cell division and through protein synthesis which controls the secretion of growth hormones. Healing processes in the body are at their peak during sleep (Robinson et al, 2005). Studies describe how hospital staff often wakes patients to carry out controls of vital signs and to perform other important procedures that are necessary for the patients' care. Little regard, however, is given to the patients sleep. Some studies suggest that nursing care should be based on the patient's perspective. One important aspect of nursing care quality and achieving a person-centred care is that the nurse is aware of the patient's experiences and wishes (Oleni et al. 2004; Reid, 2001; Cimel et al. 2004). Oleni et al. (2004) suggests that patients' experiences of sleep should govern how sleep disruptions should be managed and it is thus necessary to focus upon and describe patients' needs and experiences. A better understanding of sleep disruptions during hospitalization and the patients' complaints and experiences can enhance the nurse's interventions in promoting healthy sleep (Bephage, 2005). It is also essential to be aware of, and to possess knowledge about, patients' experiences of the phenomenon of sleep. Since previous research on patients sleep has focused mostly on physical factors there is a need to explore the sleep issue from the patient's perspective

### Aim

The aim of this study was to explore and describe patients' experiences of sleeping in hospital.

## Methods

### Study design

This is a qualitative descriptive study based on semi-structured interviews. The qualitative approach was chosen to capture the patients' views and experiences.

## Sample and settings

Patients were recruited consecutively from three wards at a university hospital in central Sweden during the period  $1^{st}$  October 2010 to 22nd March 2011. Thirty-eight patients who had undergone planned surgery or planned medical treatment and met the criteria for inclusion were asked to participate- (20 were males and 18 females). Ten of the patients agreed to participate. The criteria for inclusion were: a length of stay of at least three days, >

18 years of age and that they were able to speak and write in Swedish. Exclusion criteria were idagnosed dementia and/or depression. Patients who met the inclusion criteria were identified through the wards' waiting lists. The nurse in charge of each participating patient checked the medical records to ensure that the chosen criteria were met. When asked to participate patients received verbal and written information about the study's purpose and design. The patients who were included were given more detailed information about the research and signed an informed consent form. The patients were given the opportunity to choose a time and place for the interviews that suited them. All patients chose to be interviewed at the hospital the day they were discharged. The interviews were carried out in behind closed doors in order to protect the patient's privacy. The participants' length of stay ranged from 5 to 16 days. Eight of the ten participants were women and two men with an age range of 39 to 68 years. Two of the participants had been cared for in a multiple-bed room and the other eight in single rooms.

### Data collection

Data were collected by semi-structured interviews. The first author of the study conducted all the interviews, including three pilot interviews. Two of the latter were included in the study as they contained answers to the questions that were to be included in the study. The interview started with an open question, `Could you tell us about your experiences of sleeping in the hospital? The open question allowed and encouraged the participant to talk openly about their experiences of sleeping in the hospital. The author posed follow-up questions and asked for clarification when necessary. The interview continued with the two semi-structured questions that dealt with views on relationship between sleep and health, as well as proposals that could improve patients' sleep in hospital. Informants' answers to these questions are not presented in a separate theme in the results, but are included under each theme based on the open main issue. The interviews lasted for 18 to 45 minutes and were audio recorded with the participant's written consent. Recorded interviews were transcribed verbatim.

### Data analysis

Collected data were analysed by qualitative content analysis. The focus of this analysis was to present and describe variations in the material with regard to similarities and differences (Graneheim and Lundman, 2004; Elo and Kyngäs, 2007). The analysis began with the study's first author reading the text repeatedly to reveal emerging patterns. During the process, reflections were made and noted in the margin and preliminary meaning units were underlined in the text. In the next step of the analysis, the text was divided into meanings units and marked with a code. All codes with similar content were sorted into categories (Table- 1). Four broad contents areas were found, Bedside manner, Physical factors, Being involved and Integrity. The preliminary analysis was presented to the other authors. The authors checked that the categories, codes and themes were consistent with the selected meaning units. This procedure was conducted to ensure that the interpretations were reliable and rigorous. During the process, the themes were discussed by the authors until a consensus was reached.

#### (Table 1)

### Ethical considerations

The study was approved by a Regional Ethics Committee in Sweden (Dnr 2010/1087-31/5).

### Results

(Table -2)

Eight out of ten informants' experiences are presented in order to highlight different experiences. Each quote is numbered so as to assure anonymity.

### <u>Bedside manner</u>

Bedside manner described what happened in the encounters between patients and nurses and some form of communication emerges between patients and health professionals. It involved not only the spoken word but also body language, facial expression and tone of voice. The patients described how staff manners aroused various feelings and how this affected their sleep. One patient reported that the staff never seemed surly or irritated and that this affected sleep in a positive way. According to the patients described experiencing a feeling of security, i.e. a sense of being well taken care of, finding peace and quiet but also feeling themselves to be in safe hands and that the care was reliable. This too had an impact on their sleep. The patients described that the feeling of security made them relaxed and thus facilitated better sleep. A lack of bedside manner awakened feelings of being abandoned and insecurity. The latter could mean that they were unable to relax and find peace, but also a lack of confidence in the care thus affecting sleep in a negative way.

### Bedside manners that create security

Most patients described both the verbal and non-verbal aspects of the encounter. This included descriptions of staff being gentle in physical contact and having kind eyes. Such responses had an impact on the patients' sleep. One patient described how the staff's behaviour had an impact on sleep by engendering a feeling of security:

"How one is treated, cared for, that they come when you need them, these are the things that make it possible to sleep". (Nr 4)

It was found that when patients felt well informed they felt a sense of security with the staff. Security meant that patient felt themselves to be well cared for and one patient described how this affected sleep:

"The staffs are very sweet and kind. You feel well looked after, in safe hands. They are very competent and when you ask about something, they always respond. These are things that can make it possible to sleep well". (Nr 1)

Patients also described how a feeling of security was created by the staff when they took the time to have conversations and showed by both words and deeds that they were available. A feeling of security enabled the patients to relax. This affected the ability to sleep and one patient gave the following description:

"To be listened to creates, at least for me, the feeling that you can relax and feel safe. All this affects the healing process but also I feel relaxed and can flow with the treatment and not least relax and sleep". (Nr 6)

## To feel abandoned and insecure

Patients described experiences about bedside manners that had a negative impact on their sleep. Most patients described how they had no knowledge of what was happening on the

ward and that this resulted in a feeling of being unsafe. Patients also described that when specified times for planned care were not adhered to this awakened a feeling of abandonment. The patients said that they did not know when the staff would come back to them and that this constituted a disturbing factor for sleep. One patient described the lack of security's negative impact on sleep:

"They often say we'll be right back, but what does that mean, five minutes or an hour?"

(Nr 3)

Some patients reported experiences of how physical treatment resulted in uneasiness and a feeling of being unsafe. One patient expressed how the physical treatment she received gave rise to a lot of feelings and how this came to affect her sleep.

"It was when they were going to do something while I was in bed; some sort of pad was to be replaced. It was very unpleasant in any case, they pulled at me and were demanding. Do this and do that, like orders. It was unpleasant, they should be butchers instead. They were so rough with me and they had this tone in their voices that was like, they didn't talk with me but about 'her'. 'We'll turn her this way and now turn her towards you'." (Nr 4)

To not feel believed by the medical staff when communicating an experience led to most patients feeling abandoned and insecure. Some patients expressed how they had felt questioned as if the staff didn't believe their experiences. These experiences aroused feelings of anger and worry. Two patients reported the following:

"I felt like they did not believe me, that I was exaggerating, but for me it was true". (Nr 2)

"It was a kind of questioning, it makes you insecure and then you are unable to sleep. A worry that they sort of expected me to fix it myself; a feeling of being abandoned". (Nr 3)

## Physical factors

Physical factors related not only to how patients experienced the hospital environment but also to how their perceived health status had an impact on sleep. All patients in the study expressed experiences about how the ward's environment had some kind of impact on their sleep. One patient expressed the importance of beds being provided with clean sheets more often and believed that a clean and fresh bed had a positive impact on the sleep. The patients also described how their perceived conditions, both physical and mental, had an effect on sleep, for example, pain, worries about the future and anxiety. Medical technical factors such as peripheral venous catheters and intravenous infusions limited the patient's ability to move during the night and that had an impact on their sleep. Administered drugs were also described as having an impact on the sleep.

## Environment

A number of patients reported that the beds were uncomfortable and thus negatively influenced sleep. Patients felt that the mattresses were too hard and hot and also that the bedclothes had an impact on their sleep. They described how the plastic cover on the pillows disturbed their sleep and that there was no choice of type of pillow. Misplaced lighting, the sound of the staff's footsteps and annoying beeping sounds from lockers on the ward were examples of other disturbing factors. One patient described how sounds were disturbing the sleep: "There is a staff toilet outside my room that has a lock that makes a sound when someone enters, I'm thinking, why does it make a noise? " (Nr 3)

The patients appreciated having access to television in the room and for the majority of the patients this had a positive impact on sleep. One patient described how she could distance herself from thoughts that came during the night by watching television and this made it easier to go back to sleep. Other patients described how watching television made them tired.

## Perceived conditions

This category concerns the patients' experiences of their physical and/or mental condition and its effect on sleep. Pain was reported to be a physical aspect that affected sleep. Inadequate pain relief during the night and having to wait for a long time to obtain pain relief had a negative impact on sleep.

"And then it's this thing with pain that comes and goes, like waves and it also disturbs my sleep of course". (Nr 3)

Patients described how thoughts and reflections about their health status affected sleep. Their thoughts were about their health status but also about how everyday life was going on outside the hospital.

## The influence of drugs and treatment

Some of the informants reported that surgical treatment and drugs had an effect on sleep. Pain contributed to sleep disruptions but also of the side effects of ingested drugs that interfered with sleep. Patients felt that the lacked information about the connection between drugs and their effect on sleep.

"I could feel my body shaking and my heart was beating really fast. They (the staff) came in and took my pulse and blood pressure and said that my heartbeat was regular and fine, but I could feel myself and I had this anxiety in my body and I couldn't sleep". (Nr 2)

Patients' technical medical treatment such as intravenous infusions, peripheral venous catheters and drainage was perceived to be physically confining. They said that they had no knowledge of how and whether they were able to move in bed. This evoked feelings of anxiety but also a sense of dependency on the staff. One patient stated:

"There were needles and drips everywhere, I felt physically confined. It felt like I was strapped down everywhere and that made my sleep worse" (Nr 3)

### Being involved

Being involved refers to the patients' experiences of influence on, and involvement in, their care. Most patients expressed a wish that the care had been more individual and preferably more 'home-like'. Home-like so as to provide an opportunity to continue with sleep routines they were accustomed to. The majority of the patients described this as a factor which could have a positive effect on their sleep when they received care in hospital. Patients in the study described how the ward's routines had a negative effect on their sleep. They understood that checks on vital signs had to be made but questioned the choice of timing.

### To have influence as a patient

Patients described the impact of influence from several perspectives. They reported that influence was about whether they had been asked by the staff about their wishes, but also being allowed to be involved and that their own resources were used. Patients reported that their sleep was affected in a positive way when they felt empowered. The majority of the respondents stated that they wished to have more of their own routines regarding sleep.

"If you could go to bed when you wanted instead of when they want you to, they expect that you go to bed at nine, which I would never do at home. Your own times for various things, it would have been nice to sleep a little longer in the morning when you had slept badly during the night but they always come to check take your temperature". (Nr 7)

Most patients described a lack of individual solutions. Several patients reported how ward routines had affected their sleep. Patient expressed their thoughts about the strict routines on the ward, i.e. when the staff check on all patients during the night. Patients wanted more individualized care with regard to the checks.

## Having control

Most patients described the importance of having control over their situation and how the feeling of having control was reinforced when they becomes patients. They described how the lack of control affected the sleep because they didn't know what's going on outside their room. Being kept well informed about what the nursing care entailed created a sense of security which had a positive effect on sleep.

"The most important thing that influences my sleep is that I know what is going to happen. If you know what's planned and that there is a plan I can feel calm and relaxed and then I can sleep". (Nr 8)

## <u>Integrity</u>

This theme is about the patients' experiences of how their integrity was affected during hospitalization and how it came to have an impact on their sleep. The informants talked about integrity in terms of being allowed to be themselves during hospitalization and as a need for private space. Integrity was also about the possibility of having private conversations with the nursing staff without fellow patients listening. Patients may experience many situations that can threaten their integrity and the those in the present study described how preserving integrity had a positive effect on sleep. Patients experienced that respectful treatment from the staff strengthened their integrity. One patient described how care in multiple-bed rooms with the presence of several patients affected integrity in a negative way. Being exposed to information about the other patients in the room elicited emotions during the night and had a negative effect on sleep.

## Privacy

Privacy for the patients concerned both the room's design and how a single room gave them the opportunity to close the door and have their own private space. All participants agreed that to be cared for in a single room strengthened their integrity and that it affected their sleep.

"It's nice to have my own room with a door to close, it's important to have a private life even in hospital. It's very good; most of the staff knocks on the door before entering..." (Nr 1)

The experiences of contact with other patients

The patients described how their involuntary contact with other patients came to affect their sleep and reported that they did not have any choice or influence in this matter. Different types of contact with fellow patients were reported, e.g. patients hearing each other without being seen, a short meeting in the dining room on the ward, or just sharing a room. This situation appeared to affect the patient's integrity adversely. All patients described the contact with other patients as involuntary but emotional and as having an impact on their sleep. The meetings elicited feelings of compassion and concerns and these feelings in turn affected their sleep.

Patients' preference for single rooms reflected selfless perspective. Most of the patients expressed greater concern about disturbing others than being disturbed themselves.

"Sometimes it's me who is feels bad and may disturb others and the next time it's someone in the room next door who is feeling bad and then I get disturbed - but we accept each other."

(Nr 1)

#### Discussion

Patients' sleep during hospitalization is influenced by several factors (Tranmer et. al, 2003). Our findings indicate that it is not only physical aspects that affect patients' sleep. Patients in our study report several experiences of how the staff's bedside manner influenced their sleep in both a positive and negative way. A good bedside manner elicits a sense of security and, according to the patients, both verbal and non-verbal behaviour contribute to this. Patients that felt well taken care of and perceived that the care they received was reliable reported feeling relaxed and that their sleep was affected in a positive way. This was exemplified through descriptions of how the nurse had "kind eyes"; and by the nurse saying that she had control over the situation whilst the patients' were asleep. In some cases the patients described how the staff's bedside manner evoked feelings of being abandoned. These experiences of being abandoned have previously been observed by Lee et al. (2007) where some patients reported that just being in the health care situation had made them feel helpless. Some patients in our study experienced that the staff did not believe them and failed to take their worries seriously. This kind of response raised negative feelings such as anger and sadness. One question to be raised is whether it is lack of time or ignorance that results in the staff acting this way. One recurring aspect regarding patient feelings of insecurity was how the staff specified a time for planned checks or nursing care during the night but did not adhere to the schedule. The patients in the study described how open-ended waiting raised feelings of insecurity just as Lee et al. (2007) had found in a previous study. The patients in our study said that having influence gave them a feeling of having greater control over their situation. To be treated and cared for by a competent and knowledgeable nurse was, according to the patients, a key factor in being able to relax and sleep. The results show that this is one main cause of feelings of insecurity. It is of great importance that the nurses have knowledge about sleep and sleep disorders as shown earlier by Pellatt (2007). Our findings indicate also, however, that nurses should be aware that their bedside manner can affect the patients' experiences of sleeping in hospital. Patients in our study described a desire to be involved and have more individualized nursing care. Most patients reported that they want the hospital environment to be more like home, to feel that they could decide themselves when they wanted to go to bed and if they wanted to sleep-in if they had slept badly during the night. Similar experiences are described in other studies (Lee et al. 2007; Robinson et al. 2005). In Bephage's study (2005) the patients experienced how a reduced ability to influence their situation had a negative impact on sleep. One example is the number of controls of vital signs that are carried out according to a fixed time schedule without regard to the patients' sleep. The ward's fixed routines not only govern

nursing care but also affect a patient's ability to influence, and to be involved in, the nursing care. In modern and progressive nursing care, the patient's individual needs should come first and this is also what the patients are requesting. A routine-based approach seems to be at odds with a person-centred care. There are many benefits if nurses are able to adopt a personcentred way of working and make an individual care plan for each patient with regard to their sleep. Not only could the patients' quality of sleep be assured but it would also satisfy the patients' wishes for involvement and participation. Nursing with a person-centered approach entails putting the patients before their illness and giving the patient's needs, as he / she identifies and formulates them, equal importance to the needs identified by the nurse (Edvardsson & Innes, 2010). The findings give rise to the question as to whether the organisation's ingrained practice and governing of the staff have resulted in a marginalisation of the capacity for flexibility and individualized nursing. Robinson et al. (2005) and Humphries (2008) both describe how the focus should be on minimizing the number of distractions that may occur during the night but also on trying to reduce the proportion of early awakenings caused by ward procedures. This reinforces the authors' opinion that the procedures that currently govern care could be developed and improved from the patients' perspective by a person-centred care approach. One question to be asked is whether the nursing care is carried out according to the individual needs of patients or is governed by the staff's working schedule and the ward's routines.

The physical factors that can affect patients' sleep concern basic facilities. The patients told us about the importance of having a comfortable bed to lie in, a pillow that allows them to feel relaxed and that light and noise are minimized at night. According to the patients, these should be the easiest factors to change in order to achieve better sleep. A large number of participants in Southwell and Wistow's study (1995) reported how their sleep was disturbed by uncomfortable beds and plastic covers on the pillows. Patients' experiences of pain with regard to sleep are also cause for reflection. In most previous studies pain is shown to be a general sleep disturbing factor (Closs, 1992; Tranmer et al. 2003: Beck et al. 2005; Dawson et al. 1999). Although the majority of patients in our study had undergone surgery there are few descriptions of pain as an affecting factor for sleep. It is possible that the patients consider pain as a less important factor affecting sleep than other factors such as bedside manner.

Despite the fact that the patients in the study were treated for serious illness they exhibited a great deal of empathy in their descriptions of their involuntary encounters with, and concerns about, other patients in health care. The patients described their encounters with fellow patients as forced on them by the situation. This was because they had not chosen to end up in hospital. They also reported how they were unable to evade conversations that concerned their fellow patients. Our findings show that preserving integrity during hospitalization is an important issue for patients. The patients in our study appreciated being cared for in a single room but primarily because they were concerned about disturbing others. Being cared for in a single room also allowed patients to maintain their own private sphere which was important for their integrity. This is confirmed by an earlier study of patients' perceptions of privacy in healthcare (Widäng et. al, 2007). These positive attitudes towards other patients are contrary to those found by Lee et al. (2007) i.e. that patient experienced the other patients as a disturbing factor for sleep.

The study's interview guide contained only three questions and this may have limited the information collected. Furthermore, patients who received care in a single room and in rooms with several beds were not evenly distributed, which could have had an impact on their experiences. More female than male patients were included in the study. However, a gender perspective was not the focus and it does not appear that the uneven distribution between male

and female patients has affected the outcomes. Whether the patients had undergone surgery or had received medical treatment was more likely to have contributed to variation in reported sleep experiences.

Most nursing research on sleep disorders in hospital has focused on physical factors such as health care environment and medical treatment effects. Only a few studies have focused on the patients' emotional experiences of sleep in hospital (Lee et al. 2007; Reid, 2001). Based on the findings from our study, it seems that nursing research on patients' sleep would benefit from a wider perspective. Research should not only be conducted to minimize the physical factors such as light and sound, but also concentrate on staff practices and treatment. The authors believe that patients' sleep is a nursing topic that should be given priority when research shows positive effects of improved sleep for the patients. The patients' accounts bring a new perspective and open the way for possible change in the way nursing care is performed.

## Conclusion

Several factors have an impact on patients' sleep. It is not only physical factors but also psychological factors such as bedside manner and having the opportunity to influence and be involved in what is happening. To experience some degree of influence, to feel involved and to be able to preserve one's integrity are, according to the patients, important factors affecting sleep during hospitalization.

## **Key points**

- A good bedside manner from the staff provides reassurance and affected the patients' sleep in a positive way.
- Patients who reported that a degree of influence and participation enhanced the quality of their sleep.
- Patients felt that health care professionals' work practices and procedures interfered with their ability to sleep well.
- Nursing interventions that promote sleep should be focused on a person-centered approach to strengthen the patient's influence.
- By raising the nurses' awareness on the factors which affect the patient's sleep, it should lead to discussion about work practices and procedures

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## Statement regarding conflict of interest

None to declare

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