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Original Research Article

Experiences of Swedish Patients being Cared for in Multiple-Bed Hospital Rooms

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ABSTRACT

Background: Most hospitals today are built to specific standards of light and appearance, sound, ambience, fresh air, greenery and nature, ergonomics and nutrition, with more multiple-bed rooms (MBR) than single-bed rooms (SBR) and between two and four patients in one rom. Long hospital corridors are painted in soft colors and decorated with art.
Aim: To illuminate and describe patients' experiences of being hospitalized and cared for in a hospital with a multiple-bed hospital room design.
Material and Methods: Eight woman and seven men, undergoing treatment in multiple-bed hospital rooms, were interviewed in three focus group interviews (FGI). A qualitative, descriptive approach, incorporating a critical incident technique (CIT), was used.
Results: One theme*: Treatment in a multiple-bed room, a complex issue* and two categories were identified based on the participants' interviews. The categories were: *Positive and negative aspects of care in multiple-bed rooms.* Sharing experiences with others, having the support of others and contact with health-care professionals were the aspects that participants described as positive. As negative aspects, the participants emphasized the following areas: needing a private area, needing confidentiality and privacy and experiences of noise and loud sounds. When treated and hospitalized in a multiple-bed hospital room, the majority of participants felt as though they were *"in a vicious cycle".*
Conclusion: The findings of the present study may help health-care professionals to enhance the positive experiences of caring for patients in an MBR, to do more to reduce their negative experiences and help participants not to get into "a vicious cycle." Health-care professionals must be more aware of and careful about the positive and negative experiences of providing care in an MBR and their effect on the participants.

Key words: multiple-bed hospital room, hospital environment, patients, experiences, qualitative approach

INTRODUCTION

Being ill and hospitalized for a period of time can often be stressful, both mentally and physically. Most hospitals today are built to specific standards in terms of light and appearance, sound, ambience, fresh air, greenery and nature, ergonomics and nutrition, with more multiple-bed rooms

(MBRs) than single-bed rooms (SBRs) with between two and four patients in one room. Long hospital corridors are painted in soft colors and decorated with art. [1] Several previous studies have shown that health-care design influences the healing process and has a direct influence on the patients. [2,3] The environment, fresh air, greenery and nature and staying in a room with a view through a window, for example, may have a positive effect on recovery from surgery. Even physiological measures, such as blood pressure, appear to reflect the hospital environment and design. [4] Music as an audio environment also has some effect on patients' anxiety and/or stress and there is lower pain intensity when patients listen to music or are exposed to pleasant visual designs. [5,6] All patients in the healing process have memories, stories and experiences from this period and in relation to health-care professionals. All these experiences and different circumstances are typical of the place and environment and it is impossible to separate them. [7]

Apart from the hospital environment, various circumstances that patients experience, the healing and health-care process and even staying in a single or MBR may influence the patient. Previous studies of SBRs in hospitals revealed that patients preferred to stay in an SBR compared with an MBR. Some of the reasons are that patients feel better and have greater privacy and a better night's sleep. Moreover, many patients stated that the contact and communication with their relatives was much better in a single-bed room. They also stated that it was easier for their relatives to visit them because they were neither interrupted nor worried by their roommates. [8-10] Communication with health-care professionals during rounds and individual care planning also revealed that patients feel freer to speak about more difficult subjects and about their diseases and that patients feel more comfortable in an SBR. [9,11] They preferred to stay in an SBR and their relationship with health-care professionals was central. [12] However, it has been documented that patients also benefit in an MBR. Previous studies have shown that patients in MBRs have good social contact with other patients and talk to other patients, which make the time pass more quickly. Different stories, communication with other patients and engaging in daily activities make the patients feel comfortable and these circumstances contribute hope. [9,13,14] The present study was designed to illuminate and describe the participants' experiences of being hospitalized and cared for in a hospital with an MBR design.

MATERIALS AND METHODS

Study design

The present study is based on a qualitative, descriptive approach, incorporating a critical incident technique (CIT). CIT is a method described by Flanagan [15] and it is utilized to obtain records of specific behaviors from those in the best position to define an incident. It is a systematic, inductive, highly flexible method, giving concrete, actual descriptions of events and designed to solve practical problems. [16] Flanagan's requirements for CIT are that the activity that is being investigated should have a well-defined aim and that both the positive and negative aspects and the problems of the activity, such as in the present study in relation to participants' difficulties with care in a multiple-bed room, are taken into account. For a critical incident report to be effective and useful, three important pieces of information must be included: a description of a situation that led to the incident, the actions or behaviors of the focal person in the incident and the results and outcomes of the behavioral actions. The number of incidents that are needed depends on the nature of the problem. An analysis of 100 incidents is considered sufficient for qualitative analysis. Critical incident methodology has been used effectively by health-service researchers to identify the responses and behaviors of patients in studies of health-care quality. [15]

Participants

The inclusion criterion was that the patients had been cared for in a multiple-bed room during the last five years. Seventeen patients were invited to participate in the study and 15 of them agreed to participate. Two of the participants declined participation without an explanation. As a result, 15 persons participated in the study: eight women and seven men, aged between 55 and 80 years. All the data were collected between July 2013 and February 2015. The author of the study made appointments for all the interviews and the first author was not involved in the clinical care of the informants.

Data collection

Data were collected through individual face-to-face interviews by the author of the study, using open-ended questions, following an interview guide inspired by Kvale. [17] The interviews began with small talk. The opening question was "Can you please tell me about the advantages and disadvantages of care in a multiple-bed hospital room?" The initial question was supplemented with other short questions like "Could you please tell me more about this?" or "What do you mean by this?" Participants were contacted by a contact nurse working in the hospitals at which the interview was carried out. Written information about the aim of the study was sent to all of them before the interviews. Additionally, information about the interview's practical issues and the participants' right to withdraw from the study if they wanted was given before the interviews started. Interviews were conducted at a hospital in the western part of Sweden and they lasted between 80 and 120 minutes. The interviews were conducted in dialogue form and were tape recorded. A verbatim transcription of each interview was made.

Data analysis

After reading each transcribed interview carefully and systematically, a description of the difficult situations in the participants' statements was produced. A decisive incident was considered to be a specific experience (critical incident) described by the participants as positive or negative in relation to their experience of the situation in which they received treatment in a multiple-bed room. A total of 229 critical incidents were identified and the number of reported incidents varied between seven and 21 incidents per participant. Some of the participants in the present study reported more than one incident for a specific situation, whereas some of them did not report any such event. To categorize the incidents, they were first abstracted from the interview text, given labels and then sorted into groups. The groups were classified in terms of different kinds of behavior, which resulted in one theme and two categories. These were regrouped into subcategories, as finer similarities and differences became apparent. The process was continued until all the critical incidents had been appropriately classified.

The present study was performed in accordance with the principles of informed consent and confidentiality and general ethical procedures such as voluntarism, the ability to discontinue participation at any time and receiving written and oral information. Standard ethical procedures were used and the study conformed with the principles outlined in the Declaration of Helsinki. [18] The personal details of the participants were changed to prevent identification. The analysis and presentation of the data were carried out in a way that concealed the participants' identity.

RESULTS

An analysis of the interviews resulted in a theme based on two main categories and six subcategories, reflecting the participants' descriptions of being cared for in an MBR. The first category contains *positive aspects* of care in an MBR. The second category reflects *negative aspects* of care in an MBR (Table 1).

Table 1. Overview of the categories and subcategories.

Categories	Subcategories	Theme
Positive aspects of care in a multiple-bed room	Sharing experiences with others Having the support of others Contact with health-care professionals	
Negative aspects of care in a multiple-bed room	Needing a private area Needing confidentiality and privacy Experiences of noise and loud sounds	Treatment in a multiple-bed room – a complex issue

Positive aspects of care in a multiple-bed room

For the majority of participants in this study, admission for a hospital stay of several weeks to several months both in and out of hospital was not just a question of treatment. Conversations with the doctor via treatment, help with the prevention of pain, elimination of various complications of the disease through the maintenance of hygiene and discharge from the hospital were all situations cited by the participants in this study. Despite all the difficulties the informants in this study experienced regarding their illness, staying in a room with several people and sharing space with other people is in itself difficult and it exacerbates an already difficult situation, but some of the informants in the present study even mentioned positive experiences from the time they spent in an MBR. Some positive things about staying in a room with several people, such as sharing past experiences, contact with personnel and the assistance of others in the room, were also mentioned.

Sharing experiences with others,

The difficult days in hospital, the pain and difficulty regarding their illness and the complications that were described by some participants in the study tended to reduce the moments spent with loved ones in the room. After all the daily duties in terms of various examinations and tests, and the problems associated with their illnesses, participants in this study described meeting with others in the room as a form of relaxation.

One informant described it like this: *"During my last stay in geriatrics, I had such nice friends in the room. After dinner, the three of us would sit on the balcony and drink coffee and talk about life, past times, different experiences. In the story-telling with them, I would forget my illness".* One woman described her experience in this way: *"I had such a good friend in the room. We were like sisters. With her I could talk about anything. It was great. In some ways it was easier to fight the illness".*

Having the support of others,

Looking at the positive side of staying in a MBR, the participants in this study evaluated the help given by other people in the room. The majority of participants in this study are older and helping each other is described as welcome. Help from others could consist of assistance picking up things, help in taking drugs or an ordinary greeting or smile. The subjects of the study described all these things as positive and very important for their stay in an MBR and for their final healing/recovery. One respondent said: *"For me, co-operation in the room is just as important as health. It is difficult if someone in the room argues and if there are problems with others".* Another respondent said: *"It is very important that you can rely on the people who are with you together in the room. If you have help and support each other, it means a lot".*

Contact with health-care professionals,

During the participants' stay in hospital, contact and communication with health-care professionals are unavoidable. The majority of participants in this study evaluated co-operation and communication with the health-care professionals as very fair and positive. Communication and contact consisted of giving medication to the patients, performing personal hygiene, transportation to other clinics, planning

treatment and individual planning, as well as planning rehabilitation after leaving hospital. All the participants in this study indicated that it is very important to have good contact with the staff and that this contributes greatly to their healing (recovery?). Contact and communication with staff were described by one informant as follows: *"They are fantastic, so nice, friendly, enthusiastic, kind, helpful, both professional and competent. // At least, it is easier to endure illness and difficulties".* Another noted the following: *"It is enough just to be polite and smiling, it means a lot to me and it is a lot easier when you act like this towards us patients. Generally, all of them are fantastic and I have only words of praise for all of them".*

Negative aspects of staying in a multiple-bed room

Positive aspects were identified by the patients during their stay in the MBR as a "drop in the ocean" compared with the negative aspects that were listed. The patients in this study expressed more negativity regarding the hospital and accommodation in a room with several people. Most patients had expected to be alone in a room. They emphasized that they had difficulties regarding their privacy, having peace and quiet and that they were distracted by others and the levels of noise and loud sounds in their daily life, as well as problems with sleep. All the negative aspects the patients in this study experienced were reflected in their psychological well-being and physical health.

Needing a private area

The desire for a private area and more space for themselves was expressed by the majority of the informants in this study. Firstly, there were a large number of patients in a small space. Secondly, the informants in this study reported the number of visitors that made the hospital room overcrowded and airless. Regarding private space and their wishes, one patient noted: *"I was not asked whether I wanted to stay in a room with other patients …,my room was used as storage for toys, so many patients and so little room, it was difficult".* Regarding visits to the room and the occupation of space, one patient emphasized: *"It is interesting that so many people can come for an hour .... the worst are people born abroad, they always come together and there are at least twenty of them".*

About visits by people born abroad, one patient said: *"A lot of them come; they sit on the bed without asking, take things without asking ... coming and going like a bus station ... disaster".*

Needing confidentiality and privacy

Negative experiences in terms of privacy and confidentiality in an MBR are described by several patients in the present study. The opinion of the majority of patients in this study was that privacy and confidentiality, as fundamental principles in the treatment of patients in hospitals, were disrupted. The privacy and confidentiality of the patients were disrupted from their arrival in the room, during the doctors' rounds and until the patients went home. The majority of informants in this study experienced the loss of privacy and confidentiality as difficult, with a touch of surprise and disappointment. When it came to the problems relating to privacy, one participant said: *"On the first rounds, my doctor described my disease to me and the other patients in the room listened to him ... what happened to my privacy"?.* About his experience regarding confidentiality in a room with other patients, one patient said: *"I was on my way home and the nurse was explaining my medication in front of everyone in the room".* The second patient was inadvertently surprised about privacy and confidentiality. *"I had questions during the rounds ... I asked the doctor and expected that he would invite me after the final round to talk with me and explain it all to me ... Well ... I got my answers to my questions immediately, but all the patients*

in the room heard what the doctor said ... Is this confidentiality?"

Experiences of noise and loud sounds

High sound levels and disturbing noises negatively influenced both the physical health and psychological well-being of all the informants in the present study. The informants in this study stated that noises and a high level of sound were present during both the day and the night. The lack of sleep and an increased rate of conflict in the MBR were some of the physical influences on informants. Some of the psychological effects on the informants in an MBR were increased aggressiveness, anxiety, changes of mood, emotional stress and nervousness. The majority of informants in this study explained the problems of noise and shouting as a major problem, because they could not find a solution or experience understanding from health-care professionals at the hospital. Most informants stated that they had envisaged their stay in hospital differently and their expectations were different. In terms of noise, one patient noted: *"I imagined staying in the hospital in a completely different way ... I was listening to music simply so that I would not hear the noise, but at the same time I had pain in my knee".* Another patient described the noise and shouting as follows: *"I was in the hospital for 10 days and during those days I slept maybe 10 hours ... there was noise all the time ... I went home from the hospital more ill than when I came ... I was more angry and aggressive".* There were descriptions of the noise: *"I argued with one patient, our room was like a bus station ... they just went in and out ... day after day, like a vicious cycle".*

DISCUSSION

In this study, the participants reported their experiences of being cared for in an MBR. They said that the days in an MBR could be experienced in many ways and that they had both positive and negative experiences. Some positive aspects of staying in an MBR, such as sharing past experiences, contact with personnel and assistance from others in the room, were mentioned. We can perhaps find the reasons why participants in the present study reported positive aspects of staying in an MB in the fact that a few of the participants were younger [19] and perhaps these participants were also not as ill and even had time to find positive aspects of an MBR or that the participants were simply positive and content in themselves. Sharing past experiences with other participants in a room, good contact and communication with health-care professionals, as well as being given assistance and help by other patients in an MBR were seen by some individuals in the present study as very good and encouraging. These findings are in line with previous studies, where patients described their new contacts in the hospital room, having someone to talk to, share their stories and spend time with, help each other and increase the security in the room. [9,13,14,20]

Skills in terms of communication and contact consisted of giving medication to the patients, performing personal hygiene, transportation to other clinics, planning treatment, individual planning and planning rehabilitation after leaving hospital. These were a few of the points the participants specified as positive in the contact with health-care professionals. All the participants in the present study indicated that it was very important to have good contact with the health-care professionals and that this contributed greatly to their recovery.

In the sense of a better life with other patients in an MBR and adapting to their illness, most participants in the present study indicated that increasing the space in the rooms and reducing the number of visitors, especially those coming from outside Sweden, would lead to great progress and improvement in this area. The present findings are in line with a previous study of patient satisfaction in relation to care in an SBR. The authors of that study

found that patients in single rooms were significantly more satisfied with their care than patients in MBRs. According to a comparative study of satisfaction rates, hospitals with more single rooms had higher patient satisfaction rates. Information related to satisfaction was collected from 111 different hospitals, after which the authors plotted the overall room section of the survey against the proportion of private rooms. It was found that hospitals with more private rooms have higher patient satisfaction scores, with a moderate to strong effect on the feeling of privacy and dignity. [21,22]

Regarding the negative situations in the present study, the majority of the patients stated that privacy and confidentiality, as fundamental principles in the treatment of patients in hospitals, were disrupted. Privacy and integrity are, according to Whitehead and Wheeler, [23] interlinking concepts that need to be considered in order to support people's fundamental rights and control over personal decision-making. Privacy is a human dimension that includes the right of individuals to be alone without being concerned with others, even if the individual is ill. The participants in the present study emphasized many ways in which their privacy and confidentiality were disrupted. The privacy and confidentiality of patients were disrupted from their arrival in the room, through the doctors' rounds and until they went home. The majority of participants in the present study experienced the loss of privacy and confidentiality as difficult, with a touch of surprise and disappointment. The disappointment of patients during rounds has been described in previous studies [14,24] and this is in line with the findings in the present study.

Another problem related to staying in an MBR, which the majority of informants in the present study mentioned, is the high levels of noise and loud sounds. The majority of informants in the present study were affected by noise. They said that they were affected both psychologically and physically. The psycho-physical impact of high levels of noise and loud sounds on patients staying in an MBR could be explained by the fact that not all people experience these changes in the hospital and different people also experience the changes in different ways.

The findings in the present study are in line with those in some previous studies of patients in ICU hospital rooms. These studies showed the impact of noise on the physiological [25] and physical health of patients being cared for in the ICU. [26] The fact that different people experience high levels of noise in different ways and are more vulnerable than others in relation to surrounding stimuli has also been reported in other studies. This may explain why so many sounds and noises appear to increase distress and generate feelings of stress and frustration. The connection between stress and surrounding noises is a well-known phenomenon from other research areas. [27,28]

One interesting finding in the present study was that all the negative situations the patients reported were linked together in a chain and in "a vicious cycle". The difficulties began with high levels of noise, continued with problems with sleep and resulted in aggressiveness and anger. Despite the fact that sleep is essential to recovery, apart from its importance for many somatic, cognitive and psychological processes, [29] and the fact that sleep shuts down the senses and prevents the body from receiving impressions and sensations, i.e. it keeps the world out, [30] many previous studies have focused on the physical aspects of sound and their importance for patients' sleep. However, in the present study the informants reported many daily problems caused by high levels of noise and stated that there is a long chain reaction from these aspects.

CONCLUSIONS

This study is the first to investigate patient experiences of care in an MBR at three different hospitals. The difficulties

associated with accommodation in an MBR are due to the inability to implement privacy, dignity and confidentiality for patients. High noise levels and the ignorance of and the inability to reduce the number of visitors born outside Sweden were also a problem. The results of the present study demonstrate that the findings could be regarded as an encouragement for further investigation of the influence of the differences in caring for patients in an MBR. In addition to this, the consequences of caring for patients in MBRs, nurses' education relating to various desires and experiences regarding staying in hospital and the consequences for dissatisfied and disappointed patients need to be examined. Changing hospital design and construction, building more SBRs than MBRs, may be a starting point to improve the situation for both patients who are cared for and nurses who provide care in MBRs.

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