Preoperative Information Provided to Swedish and Immigrant Patients Before Total Hip Replacement

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**Background:** Total hip replacement is an operation that usually leads to pain relief and improved health related quality of life (HRQoL). Previous studies have demonstrated the importance of information about upcoming surgery. Therefore, it was of interest to study how both immigrants, whose first language was not Swedish, and Swedish patients described pre-operative information. **Material and methods:** Individual interviews were conducted with 10 immigrants and 10 Swedish participants. The data were analysed using qualitative content analysis. The study was carried out in western Sweden from March to November 2010. **Results:** The findings revealed that pre-operative information for all patients undergoing elective total hip replacement was limited. Patients from both groups expressed concern about inadequate preoperative information pertaining to the surgery, implant selection, pain relief, choice of anaesthesia, no or too short a time to put questions to the surgeon and an overall stressful situation. **Conclusions:** Adequate preoperative information is important for optimising pain relief and shortening the hospital stay. The fact that the patients overwhelmingly rated the preoperative information as inadequate may be due to several reasons. Mental distress and the two-week interval between the time when the patient received the information and the operation might have contributed to the low degree of retention. **Key words:** Elective total hip replacement, mental health, pre-operative information, pain, immigrants.

1. **INTRODUCTION**

Total hip replacement (THR) is an operation that usually leads to pain relief and improved health related quality of life. Several factors may, however, contribute to an inferior outcome. Patients with depressive disorders, inadequate pain relief or inadequate information before surgery are more likely to experience a negative outcome (1, 2, 3, 4). Previous research reveals that pre-operative anxiety/depression is a negative predictor of pain relief, patient satisfaction and cost-effectiveness and that mental health may influence pain experience (5). There have also been reports of a significant relationship between socio-demographic patient variables, the level of preoperative anxiety, the presence or absence of social support and the level of anxiety (6).

The primary indication for THR and main reason why patients with osteoarthritis seek care is severe pain (7, 8) demonstrated that the provision of relevant information before the operation can reduce post-operative pain and anxiety.

Previous research has also revealed that patients who are well informed before THR may have more realistic expectations of life after surgery compared to those less well informed (5, 9).

Therefore, all patients scheduled for a THR should be informed about the procedure including implants and available surgical techniques, rehabilitation, possible complications after surgery and expected outcomes (4).

In Sweden, the health care system is expected to provide equal health care opportunities for all patients (10). The Swedish Health and Medical Services Act (1982) stipulates that health care must:

- Be of good quality and take ac-
count of the patient’s need for safe care and treatment,
• Be readily available,
• Be based on respect for the self-determination and privacy of the patient and
• Promote good relationships between patients and health care providers.

Care and treatment must, in as far as possible, be designed and conducted in agreement with the patient. However, communication between health care providers and patients may be more difficult if the patient does not speak or understand the language. Being an immigrant and living in a new country with a different ethnic, cultural and socio-economic background including a foreign language may be difficult. Good communication between the doctor and patients is understood to be a vital component of care and leads to improved satisfaction, patient compliance and health outcomes (11).

The frequency and risk of complications after surgery seem to be associated with ethnic background (12, 13). Language barriers can lead to a number of negative consequences, such as an increased risk of non-compliance, feelings of fear and despair, as well as difficulty achieving rapport. Moreover, the inability of patients to understand and speak the language of their health professionals may be an important obstacle to seeking care (14). Some previous studies indicate that poor language proficiency is negatively associated with patient perceptions of the quality of doctor-patient communication as well as with compliance (15, 16). Escalante et. al. (2002) (16) demonstrated that language barriers can also impact on THR outcomes. In a previous study (17) it was revealed that in the preoperative period, participants born outside Sweden reported more problems with self-care and anxiety/depression. They also reported more pain postoperatively, but there were no significant differences in degree of satisfaction. We wanted to highlight and explain the reasons for the great differences between immigrant patients and patients born in Sweden. Could the differences have something to do with preoperative information? No previous studies concerning preoperative information before THR were found. The aim of the study was therefore to explore how immigrants and Swedish patients described information provided before elective THR.

2. SUBJECTS AND METHODS

Patients were recruited two weeks prior to THR surgery at the Sahlgrenska University Hospital, Mölndal, Sweden. Inclusion criteria were patients with primary or secondary osteoarthritis, admitted for surgery from their own homes in the surrounding area. An exclusion criterion was patients unable to participate in an interview. Twenty patients were invited to participate and all agreed. They were recruited consecutively until 10 immigrants and 10 Swedish patients had been enrolled.

Participants born in Sweden were aged 40 to 86 (median age 63) and immigrants 30-87 years (median age 59). Most of the immigrants came from Europe, one from Africa and one from Asia (see Table 1). Seven of the immigrants understood and could speak Swedish. Three of them could not and interviews were therefore conducted with the aid of a professional interpreter. Participants could choose between male and female interpreters. Before each interview a meeting was held with the interpreters to inform them about the study and their role. The style of the interpreting was consecutive, meaning that only one person spoke at a time. During the interview, the interpreter translated the essential meaning of a statement rather than word by word. Immigrants had a high educational level and three had academic degrees. Participants born in Sweden had a minimum of elementary school level education. Most were cohabiting, married or had been married (Table 2).

In order to obtain background data, all participants completed the Depression and Anxiety Stress Scale–21 items (DASS 21) (18) a few minutes after the interview finished. The DASS 21 score have been validated and translated into Swedish. They were used to measure the participants’ depression levels. The participants who were unable to read and understand Swedish were helped by the professional interpreter. The categories were: No depression 0–9, mild 10–13, moderate 14–20, severe 21–27 and extreme depression 28+ (see Table 2). Six immigrants had extreme depression.

<table>
<thead>
<tr>
<th>Participants</th>
<th>Age</th>
<th>Country of birth</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 M</td>
<td>63</td>
<td>Sweden</td>
</tr>
<tr>
<td>2 M</td>
<td>53</td>
<td>Sweden</td>
</tr>
<tr>
<td>3 M</td>
<td>68</td>
<td>Sweden</td>
</tr>
<tr>
<td>4 F</td>
<td>51</td>
<td>Sweden</td>
</tr>
<tr>
<td>5 M</td>
<td>51</td>
<td>Sweden</td>
</tr>
<tr>
<td>6 F</td>
<td>68</td>
<td>France</td>
</tr>
<tr>
<td>7 F</td>
<td>54</td>
<td>Finland</td>
</tr>
<tr>
<td>8 M</td>
<td>54</td>
<td>Scotland</td>
</tr>
<tr>
<td>9 M</td>
<td>40</td>
<td>Sweden</td>
</tr>
<tr>
<td>10 F</td>
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</tr>
<tr>
<td>11 F</td>
<td>82</td>
<td>Sweden</td>
</tr>
<tr>
<td>12 F</td>
<td>70</td>
<td>Sweden</td>
</tr>
<tr>
<td>13 F</td>
<td>86</td>
<td>Sweden</td>
</tr>
<tr>
<td>14 F</td>
<td>77</td>
<td>Poland</td>
</tr>
<tr>
<td>15 F</td>
<td>30</td>
<td>Somalia</td>
</tr>
<tr>
<td>16 F</td>
<td>47</td>
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<tr>
<td>17 M</td>
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<td>Philippines</td>
</tr>
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<td>18 M</td>
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</tr>
<tr>
<td>19 M</td>
<td>63</td>
<td>Finland</td>
</tr>
<tr>
<td>20 M</td>
<td>37</td>
<td>Romania</td>
</tr>
</tbody>
</table>

Table 1. Demographic data of participants

<table>
<thead>
<tr>
<th>Number of children</th>
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<th>1-2 children</th>
<th>3-4 children</th>
</tr>
</thead>
<tbody>
<tr>
<td>No depression</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Mild</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Moderate</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Severe</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extreme depression</td>
<td>3</td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>

Table 2. Patient Demographics and DASS 21 score
two had mild and two no depression. Of the participants born in Sweden, three had extreme depression, two severe and the remaining 5 moderate, mild or no depression. The Regional Ethical Board, University of Gothenburg, Sweden, approved the study (No: 275-10).

Participants were recruited during the standard routine for THR surgery at the hospital. In Sweden, patients seeking help for hip problems in primary care receive a referral to specialist care. About two weeks before the operation the patients visit the orthopaedic clinic, where they meet an anaesthesiologist, an orthopaedic surgeon, a physiotherapist and a contact nurse. During the visit patients are examined and given further information about the type of anaesthesia, surgical procedure and rehabilitation following surgery. The surgeon provides oral and written information about the operation and implant. Patients can also view an educational film describing the surgical procedure as well as see and touch the hip implant. They are admitted to hospital the day before the planned surgery.

At the visit two weeks before the operation, the contact nurse invited eligible patients to participate in the study. Those willing to participate signed a consent form attached to the electronic patient records. The contact nurse informed the first researcher (FK) about interested patients. An interview was conducted the day before the planned surgery.

Data were collected by the first author through face-to-face interviews using open-ended questions. The interviews began with small talk. The opening question was “Can you please describe the information you received before surgery?” Participants were urged to speak freely using their own words. During the interviews, the interviewer encouraged the participants to respond to questions as comprehensively as possible. The interviewer only interrupted to pose further questions or follow up the information. The interviews were performed on the ward, lasted between 60 and 90 minutes and were audio-taped and transcribed verbatim. A qualitative content analysis was carried out in accordance with Graneheim & Lundman (2004) (19). The analysis was performed in several steps, beginning with careful repeated readings to gain an overall picture of the text. Thereafter, the analysis proceeded by extracting meaning units consisting of one or several words, sentences, or paragraphs from the interview text. The researchers compared the meaning units to find similarities and differences. In the third step, each meaning unit was condensed, which meant shortening the text while still preserving the core meaning (19). The condensed meaning units were abstracted and inductively labelled with a code. In the following step, the codes were compared in a comprehensive process that generated six subcategories and two categories.

3. RESULTS

The analysis resulted in two categories describing participant descriptions of the preoperative information; “Getting information before surgery” and “Getting a new hip”. These categories, together with the subcategories, are presented in Table 3.

3.1. Getting information about surgery

Some participants stated that it was important to be informed before surgery. They wanted information about pain management, the surgical procedure, anaesthetics and the selection of implant for surgical insertion into their bodies. Most of the patients described the preoperative information as limited; the doctor had no time to explain the operation, there was no time for questions and it was very stressful. One participant was not interested in information and wanted to have the surgery as soon as possible.

3.2. To handle hip pain

Information on pain relief was considered important. Most participants described their pain as due to osteoarthritis, but revealed that information on how to relieve it was not part of pre-operative information.

Pain relieving medication was often used, but most participants said it did not help. Some had contacted their doctor for stronger medication, whereas others did not want additional medication because they disliked taking drugs. One participant described avoiding pain killers:

“I don’t want more pills because I’m someone who doesn’t like pills”. (p6)

Another participant described that he was afraid of taking pills because of the side effects. Thus, despite the pain he did not ask for better pain relief and commented:

“No more pills; they make me feel swollen”. (p19)

Some participants discovered their own methods for easing pain such as aquatic exercise and massage. One had discovered a way to handle pain by sitting in a certain position:

“I do not like medicine, but I have my own methods. I put my knee over the armrest of the couch and then I have no pain”. (p18)

All participants considered surgery the only way to be permanently pain free.

3.3. Limited information from hospital staff

Most participants wanted both oral and written information from hospital staff before surgery, but many felt that the information was inadequate and lacked details about the operation.

“The doctor informed me that I would get a new hip, but not how it would happen, neither the type of prosthesis nor the surgical process.” (p3)

Much of the written information was sent by post from the hospital several days before surgery. However, it was considered limited by most participants. They had no knowledge of what would happen before or during surgery.

“I did not know anything about my surgery just that it ends.” (p16)

<table>
<thead>
<tr>
<th>Categories</th>
<th>Subcategories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Getting information about surgery</td>
<td>To handle hip pain</td>
</tr>
<tr>
<td></td>
<td>Limited information from hospital staff</td>
</tr>
<tr>
<td></td>
<td>Finding information themselves</td>
</tr>
<tr>
<td></td>
<td>To choose anaesthesia</td>
</tr>
<tr>
<td>Getting a new hip</td>
<td>Being pain free</td>
</tr>
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<td></td>
<td>Being independent</td>
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</tbody>
</table>

Table 3. Overview of the categories and subcategories
However, the participants experienced that the staff expected them to know what would happen next, which gave them the impression that the staff members did not act responsibly.

"It felt as if there was so much responsibility on my shoulders having to keep track of all the documentation I received". (p4)

The participants who spoke no Swedish were assured that an interpreter would be provided to help them. However, sometimes the interpreter never showed up.

"I went to the doctor with my cousin and we waited for the interpreter. My cousin did not want to interpret for me because she was afraid of making mistakes. The interpreter never came and I received no information about the surgery. It made me very nervous." (p15)

Some immigrant participants said that they had received information about the surgical process by post. The letter informing them about the surgery was in Swedish and could sometimes be difficult to understand, especially for those who did not speak or understand Swedish.

"Can you imagine a person who can't read Swedish getting so much information? It is no fun at all". (p20)

However, one participant was satisfied with the information provided.

"I am very impressed by how well you take care of your patients and how well I was informed about my operation". (p14)

3.4. Finding information themselves

Participants lacking information on their upcoming operation found different ways of searching for it. Some searched on their own. Those who could understand Swedish searched the Internet, read books about hip replacement surgery or asked friends or relatives who had undergone THR.

"I read about my operation on the Internet, in books and asked friends who had already undergone this surgery and feel ready for the operation tomorrow." (p14)

Sometimes the time allotted to inform patients was too short. In such cases the participants were told to search for information themselves.

"My doctor said: You can log on to the Internet and search The Swedish Hip Register where you will find all the information you need". (p5)

Some immigrants only received meagre information concerning their operation. For those who could not speak Swedish, had no friends or relatives to ask and had never visited a hospital before, the situation was complicated.

"I can't speak Swedish, I did not know where to search for information about the operation, I've never been in hospital, I knew nothing". (p15)

3.5. To choose anaesthesia

Many participants were informed about the different types of anaesthesia. They described that during the preoperative visit they had been given the impression that they would be asked which type of anaesthesia they would prefer during surgery. However, when they spoke to the anaesthesiologist the day before surgery, they felt that she/he had already made a decision.

"I said to my anaesthesiologist that I needed a general anaesthetic and wanted to sleep during the operation, but he said: an epidural is sufficient". (p11)

Details concerning the surgery and the surgical procedure were also decided quickly. Participants described being asked about the operation, but felt unable to make decisions without preparation. The rapid pace caused them considerable stress.

"Do you want to listen to music during the operation? Are you in pain? So many questions in ten seconds, I knew nothing". (p16)

Being asked many questions in a short space of time confused and prevented them from deciding on the details of their surgery. However, most participants were clear on one point, namely that they did not want to hear noise from power tools or hammering during surgery.

"I wanted to be anaesthetized during surgery. I did not want to hear anything or see bloody instruments." (p3). "I want to sleep during my operation, please do not discuss it any further." (p17)

The participants stated that they themselves had to argue for their wish to be met.

3.6. Getting a new hip

The participants also received inadequate information about the process after surgery. However, they had many thoughts and ideas regarding what would happen. A new hip implant meant new opportunities and they considered that life would be better after the operation. Some thought they might become active again, while others hoped they would be able to return to work. Some only wanted to spend more time with their grandchildren and enjoy life. To be able to meet with friends once again was an example of a positive approach to everyday life. However, all participants focused on their pain and looked forward to pain relief immediately after surgery.

3.7. Being pain free

The participants were informed about pain after surgery from different sources. Some were informed by health care professionals, others by relatives and friends who had previously undergone surgery. They expressed many different thoughts about life after surgery. Some thought about their families, while others thought about their work and job, business or employers. They had hopes and expectations that surgery would help them to live a normal life again. All participants expected that the pain would decrease or disappear.

"Undergoing surgery feels fantastic even if I'm free from pain for just an hour or two. I would be glad if I could move without pain." (p1)

All participants had great expectations of a pain-free life after surgery.

3.8. Being independent

The participants had little information about life after surgery. They expressed hopes of being more mobile and less dependent on others. They wanted to fend for themselves at all costs.

"I have expectations of managing alone; dressing myself, putting on my socks. In Sweden you do not ask for help, that is how it is." (p18)

The participants expressed hopes of becoming active again and enriching their lives by walking, housework, hobbies and other activities. One participant described his hobby as the most important aspect of his life. He only thought about football and everything else was insignificant.

"For me the most important thing is to play football again." (p19)
Other participants expressed hopes of being able to work again.

"I’ve thought enough about what will happen after surgery and the only thing I want is to work again as an electrician." (p1)

Some participants expected that their health would improve after surgery. They declared that they wanted to look after themselves at all costs.

However, the expectations of life after surgery were not only positive, as some participants had concerns about dislocation of the prosthesis or falling after the operation, which could damage the implant.

"In three months the rehabilitation period will be over, but you must be very careful because the hip may jump out of place." (p16)

4. DISCUSSION

In this study we analysed descriptions of the information provided before elective total hip replacement surgery. It is important to note that most participants described preoperative information as limited. There was too little time for questions and the situation prior to surgery was stressful. Some participants reflected that much of the responsibility for making choices was placed on patients.

Interestingly, there were only small variations in the descriptions of preoperative information between patients born in Sweden and immigrants. Both groups felt that the information was of low quality. However, this was especially true for participants who could not speak Swedish. Thus, standardized information about surgery to patients who could not speak Swedish could be experienced as offensive. The study showed that participants without experience of hospitalization constitute an important group that must be taken into account. It is important that health care professionals are aware of this group and their considerable need of information about what will happen during and after surgery. Being in a foreign environment as well as lacking knowledge about and having no control over the situation often leads to feelings of powerlessness and insecurity (20). This group of patients might have a greater need for modified preoperative information.

Our findings also revealed that nearly all participants emphasized the importance of adequate information before surgery. They wanted to know more about the surgical procedure, types of anaesthesia, implant selection and life after surgery. These findings can be seen in the light of Sjöling et al. (2003) (9), who showed that information given prior to total knee arthroplasty helped patients obtain better pain relief after surgery. Postoperative pain declined more rapidly, the level of preoperative anxiety was lower and patients were more satisfied with postoperative pain management. The importance of preoperative information was also illustrated by Kiyohara et al. (2004) (21), who found that participants who received no information about surgery had higher state-anxiety levels. The study suggested that preoperative information may reduce anxiety regardless of diagnosis. Kagan & Bar-Tal (2007) (22) also demonstrated that preoperative anxiety negatively affected postoperative recovery, while preoperative uncertainty negatively affected mental and physical recovery after surgery.

The present study indicated how the time allotted for information was important and the number of health care professionals involved in providing it played a critical role. On the day of enrolment the participants met many staff members, all of whom provided information about the surgical process. The question is which information should be provided and how much the patient remembers on the day of the operation, two weeks after receiving the information (23). The timing and amount of information are thus important for patients undergoing elective total hip replacement (23, 24, 25).

So what can patients do if they receive too little or contradictory information from health care professionals? Our study revealed that many asked relatives and friends or searched for information on the Internet. However, some participants who had only lived in Sweden for a short period had few people they could ask. It is important to be aware of patient expectations on surgery and how they may be affected by information from friends and relatives. Information from the latter and from health care professionals may be incongruent. Health care professionals should pay increased attention to patients with language barriers. Our study revealed that although knowledge of information needs of patients with language barriers has existed for a long time, the use of interpreters still appears limited. It is vital to be responsive and adjust information to the patient’s needs (26).

Our study also demonstrated that the opportunity to influence the choice of anaesthesia was important. However, our study illustrates how participants preferred general anaesthesia, mainly to avoid the sounds of surgery. Being involved in the process of choosing anaesthesia seems therefore important in patient care. The feeling of controlling the sounds of surgery might also be a topic for further research.

Some participants in our study, especially those who had only lived in Sweden for a short time, described a lack of information about pre-operative pain relief. Some were not informed of the availability of stronger pain relief or the right to contact their doctor if necessary. On the other hand, Lam et al. (2001) (27) studied patients on a neurosurgical ward and found that they were well informed about pain management and that the majority reported receiving adequate pain relief.

In our study, the participants’ hopes for the future were sometimes mixed with fear about postoperative complications. Above all, they wanted their pain to disappear and hoped that their desire to engage in different activities would return and that their lives would revert to normal after surgery. They believed that the operation was the only option to permanently rid them of their pain. The importance of being pain-free has been demonstrated by Gustafsson et al. (2007) (28), who reported that freedom from pain and life without analgesics resulted in a feeling of gratitude, freedom and satisfaction and the possibility to enjoy life.

The analysis also revealed fears of dislocation of the joint replacement. This is in line with the report by Fujita et al. (2006) (29), who also found that
participants undergoing THR and knee replacement were afraid, especially due to the risk of dislocation and that this fear was more pronounced after the operation. All participants in our study should have received information about how to use and move with the implant. However, the information might have been difficult to understand for those with language barriers.

In our study the immigrant group tended to have more depression than the Swedish participants. This can perhaps be due to their previous life experiences that caused them to emigrate from their native country or other factors such as lack of experience of previous visits to a hospital, inadequate information and preparation in addition to the stress caused by long-term pain. One limitation of our study was that we interviewed the participants the day before surgery, which can do that the participants may be nervous and anxious about the surgery for the following day. Other limitation of our study was that some participants visited a hospital ward for the first time. For others, previous experiences of hospitalization might have created stress over and above that associated with being scheduled for THR the following day. Although all participants experienced similar circumstances, they might have had different effects on their ability to communicate with the interviewer.

5. CONCLUSION

The quality and retention of pre-operative information on surgery can depend on many factors. The participants received information about surgery two weeks before the operation. This is probably a long enough period to forget a substantial amount of the information.

The retention of the pre-operative information on surgery provided to patients undergoing elective total hip replacement surgery was generally limited both among immigrants and those born in Sweden. Our findings indicate that the timing and the way in which the information was provided could be improved. The professional informing the patient should make sure that the patient has understood the essential content and be perceptive to any need for an interpreter.

According to recent studies, continuity of care and staff will reduce the length of hospital stay and probably increase patient satisfaction. Such a measure should also have the potential to improve the quality of the preoperative information (30).

Today, Sweden is a multicultural and multi-ethnic society. Health care professionals must become aware of the needs of various ethnic groups. Hence, health care professionals must become aware of and the health care system be adjusted to the needs of ethnically diverse patients instead of expecting the opposite. In order to provide transcultural care, health professionals require knowledge that historical, political and socio-economic factors may influence ethnic minority groups in Sweden.

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