

ARTHRITIS PATIENTS' QUALITY OF LIFE BEFORE AND AFTER KNEE ARTHROPLASTY

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Abstract: The concept of “quality of life” includes various dimensions of a person’s life and several instruments have been developed for its assessment and its correlation with the effectiveness of treatments and interventions in the patient’s life. Knee arthritis is a degenerative disease, which affects the patients’ quality of life due to its symptoms and its chronic nature. Several studies have shown that total knee arthroplasty contributes to the improvement of physical activity and of social life, it promotes psychological and emotional wellbeing, it improves mental clarity, liveliness, and eliminates or decreases pain.

Aim: In order to investigate the patients’ perception on their quality of life before and after total knee arthroplasty, we conducted a qualitative study by interviewing patients by using an interview guide.

Material and method: The sample consisted of 14 patients who underwent a surgical total knee replacement because of arthritis. The interviews

took place in specific offices of the hospital and lasted from 45 to 60 minutes. The interviews were analysed with the method of content analysis.

Results-Conclusions: It was found that pain, relative inability to respond to basic everyday self-care activities, and difficulty in walking were the most important problems for those who were not working. For those who were working, difficulty in walking was the most important problem since it inhibited almost every effort to work. The patients stated also that they were psychologically influenced by their condition, and some commented on the indirect social exclusion that they felt. Family was the main source of support for the patients in their every day life. The improvement of the patients’ functionality and of their overall quality of life after the surgical procedure was immediate and satisfactory.

Keywords: arthritis, knee arthroplasty, pain, self-care, feelings, support, quality of life

INTRODUCTION

The concept of “quality of life” is a sophisticated one, including functional, physical, emotional and social dimensions of a person’s life, as well as social and spiritual wellbeing, human rights and environmental issues [1,2]. Due to this sophisticated nature of the concept there is often a difference between the way in which health care professionals and patients themselves understand the physical health and wellbeing of the patients [3-7].

The last years the term “quality of life” (QOL) has become a common point of reference for international comparisons and several instruments have been developed for its assessment [8-11]. Another term, the term “health related quality of life” (HRQL), is also used in the health care literature and is referred to the way in which a person or a group of people who suffer from some chronic disease understand their quality of life and concerns physical, emotional and social condition as well as their social wellbeing of the patients in relation to specific disease [12-14]. One of the reasons for the rapid development of quality of life measuring instruments is the recognition of the outcome of various treatments and of the effectiveness of several interventions in patients’ quality life [6-8]. Health related quality of life is frequently measured in epidemiological studies that concern the assessment of a disease’s effects in patients’ and patients’ families lives, as well as for the

assessment of the cost effectiveness of a treatment in comparison to other available treatments or to non-treatment [15-16].

Quality of life of arthritis patients before and after surgery

Knee arthritis is a degenerative disease of a chronic nature, like any other arthritis. According to Tennant et al [17], twenty patients out of 1.000 people in the general population over 55 years old will benefit from knee arthroplasty, while 4 out of 1000 of those patients, even though they face major disability, they are not referred for surgical treatment. In the next 30 years it is expected that the demand for knee arthroplasty interventions [18] will increase by 40%. According to the literature, depression, stress, reduced livelihood, sleep disorders, reduced performance of everyday activities, disturbances of family role, decrease in sexual desire and activity, and the limitation of hobbies, consist some of the effects of arthritis [19-22]. On the other hand, patients who are suffering from arthritis and are waiting for surgical replacement of their joint face a reduced mobility, restriction of everyday activities, sleep disorders, and more pain in relation to the general population [23]. In a literature review of relevant studies by Ethgen et al. [24] on thirty two studies focused on "health related quality of life" of patients that underwent hip or knee arthroplasty, it was concluded that this specific surgical procedure was effective in terms of improving the patients' quality of life in the majority of the studies.

Furthermore, McGuigan et al. [20] reported that patients who underwent total knee or hip arthroplasty, two years after the operation stated that they noticed a significant improvement in their physical activity and social life, they have a better psychological and emotional wellbeing and a better mental clarity, they feel more vitalized and the pain has disappeared from their lives or at least has improved.

Moreover, March et al. [25] reached to the conclusion that total arthroplasty operations improved considerably the wellbeing and the quality of life of patients 12 months after the operation, while according to other studies the patients' age did not seem to consist an obstacle for the operation and the expected outcomes [21,26]. According to Olivier et al. [26] men seem to receive greater relief from pain after surgery in comparison to women, while patients who had worse quality of life before surgery stated greater improvement and satisfaction after the operation.

Aim: The aim of this study was to investigate the patients' perception about their quality of life before and after total knee arthroplasty.

Material and method

Population

A qualitative study on a convenience sample of 14 people who had undergone total knee replacement due to arthritis, at least 6 months before the interview, it was conducted. Subjects were chosen through a 3-phase process. In the first phase, the researchers approached two orthopedic surgeons of two hospitals; they informed them about the study and asked for his help in approaching the patients. Next, selected patients, who visited the outpatient clinics of the Orthopedic Department of the hospitals for a sixth month follow up after surgery, were informed about the study and were asked whether they were interested in participating in. Patients who expressed interest in participating received additional information, with special emphasis on data confidentiality, as well as on the right to cease their voluntary participation at any time, without any ramifications on their current or future treatment and they were asked for one more time if they wish to participate in the study. During this phase, 19 were patients agreed to participate in the study. Nevertheless, five of them did not finally accepted to be interviewed for personal reasons and appropriate times for conducting the interviews were set after agreement between the participants and the researchers.

Ethical Issues

The Nursing Department of the Technological Educational Institute of Thessaloniki, acting as an Ethics Committee, approved the protocol of this study, and permission to carry out the study in the hospitals was given by their authorities.

Instrument for data collection

A semi-structured interview guide, which it was validated regarding questions included and appropriate wording by three experienced researchers [27]. The interview guide used helped in addressing the topic of the experience of the quality of life of knee arthritis patients before and after surgery. Information on demographic and social characteristics of participants was also collected, while a last question provided an opportunity for the subjects to share any additional information or feelings he/she might wish to.

Data collection and data analysis

The interviews took place in an office in the outpatient clinics of the Hospital and they lasted from 45 to 60 minutes, according to the patients' responses. All the interviews were recorded on audiotape, and no additional information was collected after the completion of the interviews. The patients did not receive any kind of compensation for their participation.

Data analysis

A content analysis review was applied [28] and all the interviews were transcribed and the typed texts were checked in comparison to the tapes for accuracy. For the purpose of achieving a thorough understanding of the material, the transcribed interviews were repeatedly and carefully read by the researchers, following which each researcher independently classified the subjects' responses into code categories as they emerged from the participants' words. Next, researchers met to discuss the code categories, necessary adjustments were made and four main code categories (pain, self-care, feelings, information and support) were agreed upon. The content of the main code categories was further categorized into subcategories meaningful to the studies, which were once again agreed upon by the researchers. The final code categories and subcategories defined and used for data analysis are illustrated in figure 1. Demographic information was separately analysed with regard to sample size, participant's age, marital status and level of education.

Results

The sample consisted of 14 people, 5 men and 9 women. The mean age was 56 years (the age range was from 38 to 74 years). Table 1.1 illustrates the demographic characteristics of the participants. All participants had undergone surgery due to knee arthritis. The following categories emerged from the content analysis:

- Pain,
- Self-care
- Feelings related to the participants' state of health and the difficulties in their self-care and
- Support provided by family and other sources.

1. Pain

Before surgery

Pain constituted the major problem for patients before the surgery, since it was the most difficult symptom for all the participants. Thirteen out of fourteen participants were in great pain while some of them they were attributing their pain to various external factors such as weather change, stress or tiredness. Regarding the characteristics of the pain subjects were referring to its intensity, its duration, and its type. Furthermore, subjects complained that pain had also side influences on their psychological wellbeing, their relationships with others, their daily life, their work and their sleep.

After surgery

Four out of fourteen patients stated that six months after the surgery they continue to feel some pain and referred to its intensity, type and duration, but the majority of them is free of pain. Some of the participants commended about side effects of pain and they characteristically stated that they are better psychologically but the losses that happened due to the bad mood and temper because of pain before surgery are still present.

2. Self-care

Regarding self-care subjects described their capabilities before and after surgery and examples of their words are included in table 2.

Before surgery

Regarding the difficulty in performing self-care activities subjects reported a reduced ability to perform them daily and they were mostly stressing the difficulty in walking. Seven out of the fourteen patients of our

sample stated that they needed pain killers in order to fulfill their daily needs of self-care. Out of the fourteen patients, nine were working and three of them were facing problems at work.

After surgery

Seven out of the nine participants stated that they were able to self-care for themselves and four out of nine who work stated their confidence for greater improvement in working better in the future.

3. Patients' feelings about their state of health and their difficulties in self-care.

Before surgery

Almost all the participants (13/14) reported that they had bad mood and that they were stressed, while disappointment about their capabilities, fear and stress for facing an uncertain future it was reported from the majority (8/14) the subjects. Some others, (3/14) they felt guilty that they didn't follow the doctor's suggestions regarding medication and physical therapy, while two of the participants they felt shame because they were understanding that they were a burden for their loved ones, or because they were not able for full participation in social life. Statements of the subjects are included in table 3.

After surgery

Thirteen out of the fourteen participants stated they were satisfied with the improvement in their physical health and in their psychological condition, as well as with their renewed attitude towards life. Examples of their statements are included in table 3.

4. Support provided by family and other sources

Before surgery

According to the patients' statements families provided support to almost all of the participants in their every day life. Four of the participants reported that due to their weakness were offered a substantial financial help from their family. Furthermore, family reported to be the main source of emotional support for the vast majority of the participants, while some of the participants mentioned the support provided to them by their doctor and from the church. Family provided also support for deciding to have the surgical procedure, while one mentioned his doctor's contribution in decision making, while another acknowledged the support provided by a woman who was paid for helping him at home. In table 4 characteristic statements of the subjects are included.

After surgery

Twelve patients stated that they do not need any more so much immediate support from other people for their self-care, while others, mostly the elderly, stated that they still need psychological and financial support. Statements are included in table 4.

Discussion

The present study, because of its qualitative character, contributes to the better understanding of problems that patients with arthritis face and of those problems' effects on their quality of life. Even though the results of this study cannot be generalized, none the less they allow us to "see" the comparisons that the patients make between their quality of life before and after the surgical procedure, and they help us get a better understanding of how total knee arthroplasty can change the quality of life of those people and can allow them to see into the future with optimism.

It is obvious both from the results of this study and from other study findings [19, 23, 26, 29] that the nature of the symptoms of knee arthritis and the chronicity of the disease burdens the patients and their families physically and emotionally. The analysis of the interviews showed that pain, weakness in full or partial response to basic daily needs, such as dressing or personal hygiene, and difficulty in walking were the most important problems. For those who were working, difficulty in walking was the most important problem since it inhibited almost every effort to work. Some patients commented on the indirect social exclusion that they felt. In some cases the participants focused on the financial difficulties that they were facing because of frequent absences from work.

Emotional problems, stress and difficulties in handling feelings were common problems for almost all the participants who stated that they were psychologically influenced and worried both about the development of their problem and about their weakness to pursuit their favorite activities. Family contributed significantly in their support and the role of the spouse was very important for the patients support in their daily life and for taking the decision to undergo the surgical procedure. In the cases when

there was no partner, the children or the siblings or doctor or the privately paid helper of the patient were taking the role of carer and supporter.

The patients stated that the improvement in their functionality after surgery and the improvement in their quality of life were immediate and satisfactory. Relief from pain and the feeling that they are not anymore a burden was of great importance for the participants. Those findings agree with previous studies [19, 21, 25, 29].

The present study's results show that surgical operation of total knee replacement consist solutions for patients leading, in most of the cases, to full recovery on a physical and on a psychosocial level. Nevertheless, more research is needed on the field in order to understand the patients' situation at the immediate postoperative period, as well as for assessing the real family contribution in helping those patients.

Table 1.1: Demographic characteristics of the sample

VARIABLE	N	%
Gender		
Men	5	35.8
Women	9	64.2
Education		
Primary School	3	21.4
Junior High School	3	21.4
High School	5	35.8
University/Polytechnic	3	21.4
Family Status		
Single	1	7.2
Married	11	78.5
Widowed	2	14.3

Table 1: Examples of statements referred to pain before and after surgery

Before surgery

Intensity

«...I was in great pain...»

«...sometimes I wanted to cry by the pain...»

Type

«...it was hurting me...»

«...it was stabbing me very strongly some times...»

«...I was thinking that I put pressure on it...».

«...some times it was burning me...»

Duration

«... most times I was in pain all the time... I needed painkillers...».

«...I was in pain all the time... ».

«...every time that the weather was changing my knee was killing me...».

«...pain was worsening when I was tiered ...after effort».

Side Influences

«...what kind of work can you do when you are in pain... this is the only thing that you think about... »,

«...I was irritated by the pain and I had a bad temper towards my wife...»,

«...I couldn't sleep because of the pain... »,

After surgery

Intensity

«...The first two months I was in quite mush pain... but things are getting better...»,

«...I still hurt...a lot less though...»,

«...pain intensity....definitely is better than before the operation...»,

Type

«...I have still some burning pain ...»,

«...sometimes stabbing pains remind me the condition...»

Duration

«...I have no pain, I feel free...»,

«...I have some pain, but not all the time...»,

«...Pain is now a bad memory ...»,

Table 2: Examples of statements referred to self-care before and after surgery

Self-care

Before surgery

Daily activities

«... there were some house works that I couldn't do any more...».

«...I had difficulties in doing shopping...I had to ask others to make favors to me...»,

«I had difficulties in bathing myself ...»,

«...I had difficulties in self care... »,

«...I had difficulties even in getting dressed...I need painkillers and after that to try... »

walking

«...I was walking but I was getting tired after some time...»,

«...it wasn't easy to walk, I was limping...»,

«...I remember one when I was walking with some colleagues... I found difficult to follow them...I was left behind...I felt like I was socially excluded...».

work

«...it was tough when I was trying to get up from the chair at work as well as when I was transferring flower-pots and plants...»,

«...at the field I was trying not to get too tired...I was stepping back from heavy work... everybody was helping me...»,

«...I couldn't some times even go for one day work for winning the bread of the family...».

After surgery

Daily activities

«...now I can take a bath by myself and I can wear my skirt by myself, everything is perfect!...»,

«...day by day things are getting better...».

I feel generally better and I help with house works... I feel again useful...».

Walking

«...I still need the scrunch but I am getting better...»,

«...I walk know...I have a feeling of freedom...»,

«...I am better, I walk better and I am not getting as tired as before... ».

Work

«...now I am usefull...I started working...»,

«...now I am doing some more work...still the light ones...but I hope for better days »

Table 3: Patients' feelings about their overall state of health and about their difficulties in self-care.

Before surgery

Stress

«... I was in a bad mood, I was stressed...
«... my mood was not good... «...I was stressed about the future...»,
«...I was stressed about what was going to happen after a few years...»

Guilt

«...I felt guilty that I didn't follow always the doctor's suggestions...».
«...guiltiness is a peculiar feeling...for what I didn't done for my health...for my bad behaviour due to illness... ».

Despair

«... sometimes I was despaired...»,
«...I had to face an uncertain...despaired...I had to face disability or the fear of a surgery...»,

Dissapointment

I was disappointed by my capabilities... I was afraid that by the time I would be not able even to dress myself...»,

Shame

«...I felt I was becoming a burden...I shamed for that...».
«...I was ashamed when we were going somewhere together for a walk and I had to stay behind...».

After surgery

Stress

«...now that I got up, without stress my mood has changed...»,
«...I don't have any stress anymore...»,

Guilt

«...I am not a burden to anyone anymore...I don't feel guilty...».

Despair

«...I am better and happier...I don't feel any more this deep feeling of despair...»,
«...I have a new attitude towards life...not at all any despair...».

Dissapointment

«...disappointment...the first time yes...I wanted everything to change immediately after surgery...now I see a progress and I am better...»,
«...for why disappointment...I see that my condition is progressing day by day...»,
«...I am happy with the results of the surgery...the results didn't disappointed me...»,
«...I can see an improvement in my physical health and on my psychological status as well...surgery didn't disappointed me...I got many things after that...».

Shame

«...I still feel some shame when I remember my behaviour before surgery, but not for my current behaviour...».

Table 4: Examples of statements about the support provided by family and friends

Before surgery

Practical every day help

«...my wife was burdened with everything but she was helping me without complaining...»,

«...some ladies from the church they were making the shopping for me...»,

«...I had hired a woman who was helping me in everyday tasks...».

Financial support

«...my children helped me with the money required for covering the operation expenses, my children and my wife gave me courage and I made the decision...»,

«...the children paid her for her work (private helper at home... ».

Emotional support

« ...when I was sad my wife was trying to console me and to entertain me...»,

«...my children, my grand-children were a reliance..... I was forgetting the situation...»,

«...even when I was behaving badly they were understanding and trying to support me emotionally...I don't really know if I deserved that with such a behaviour...»,

Support on making the decision for surgery

«...some times when I was feeling pressured for the decision I had to make (regarding operation) my wife was helping me...»,

«... she (wife) deserved a better life and I decided the operation...»,

«... my children and my wife gave me courage and I made the decision...»,

«...I had hired a woman who was helping me... very good...she had become as a family member... she encouraged me in the decision...»,

«... my doctor helped me with his words and I made the decision...»,

After surgery

Practical every day help

«...I manage very well myself in self care... now I rarely need help...»,

«...my wife was helping at first... now I rarely need help...»,

«...my wife helps at home... but I don't need her like I used to before...»,

«...I still need the hired a woman for helping me... but I am also quite old...»,

Financial support

«...my children still give to me some money...for physical therapy for example...»,

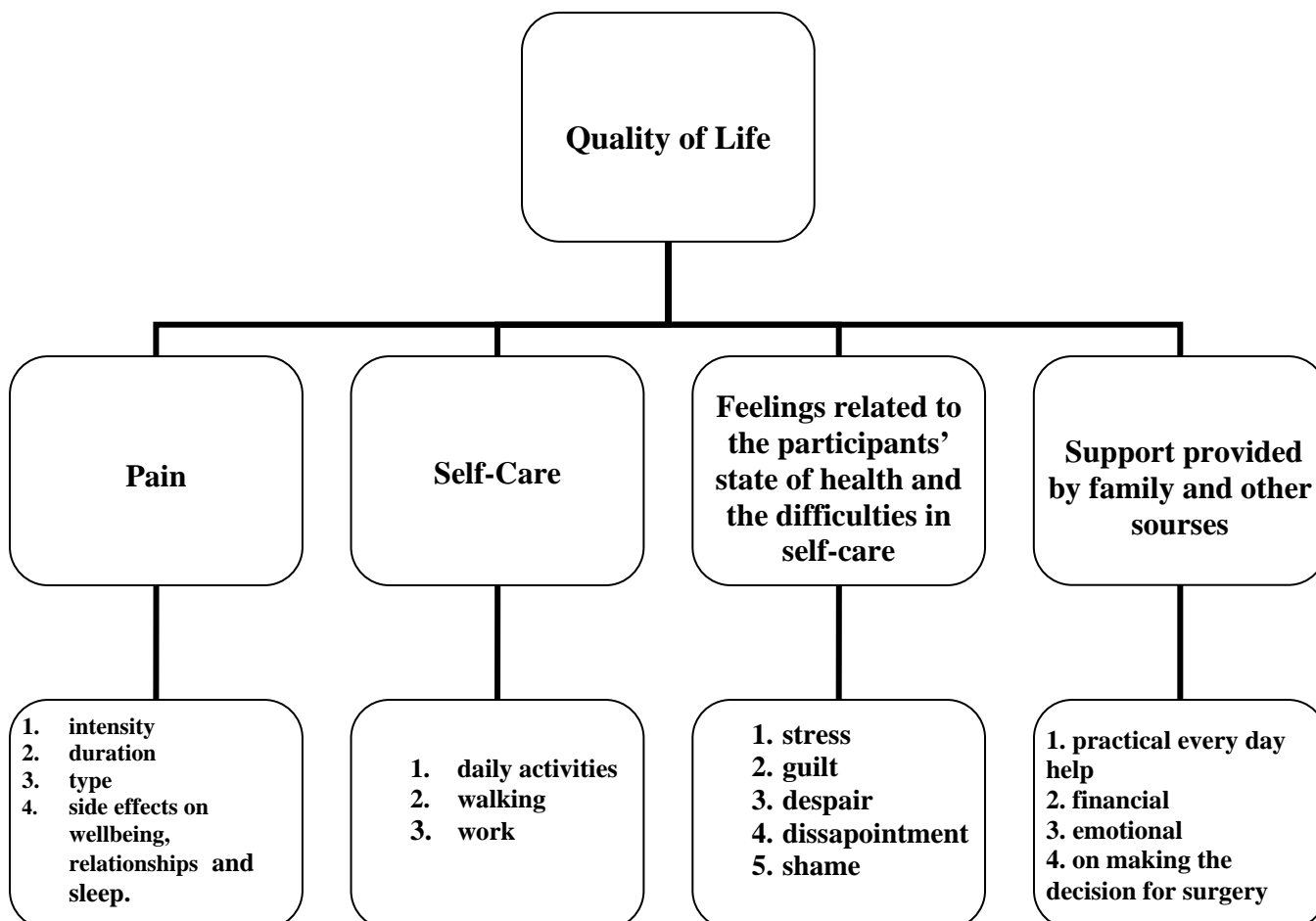
«...they still help (children) with money...but even without my condition I had to rely on them...»,

Emotional support

« ... my wife is supporting...I am a human being and it was a real big issue all of this for me...sometimes I need some support...»,

«... my grand-children are a source..... I am getting older...»,

Figure 1: Categories and subcategories for Quality of Life of arthritis patients who underwent knee arthroplasty



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