

## Clinical pain research

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# Multiprofessional assessment of patients with chronic pain in primary healthcare

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### Abstract

**Background and aims:** Chronic pain is a common reason to seek health care. Multimodal rehabilitation is frequently used to rehabilitate patients with complex pain conditions. The multiprofessional assessment that patients go through before entering multimodal rehabilitation may, in itself, have a positive impact on patient outcome but little is known regarding patients own view. Therefore, the purpose of this study was to discover how patients experienced this multiprofessional assessment project.

**Methods:** Ten patients participating in a multiprofessional assessment at a primary healthcare centre in Western Finland were interviewed using a semi-structured interview. Qualitative content analysis was used to analyse the interviews.

**Results:** The analysis resulted in six categories of participant description of their multiprofessional assessment experiences and the rehabilitation plan they received. *Feeling chosen or not quite fitting in* was a category describing participant feelings upon starting the assessment. They expressed their thoughts on the examinations in the category *more than just an examination*. *Being affirmed* described participant desire to be taken seriously and treated well. *Receiving support* described the perceived roles of the team members. Participant negative experiences of the assessment were described in *confusion and disappointment*. Finally, in *taking and receiving*

responsibilities, participants described their own role in the team.

**Conclusions:** Experiences of patients in a multiprofessional assessment were mostly positive. This highlights the value of a team assessment that takes several aspects of chronic pain into account when assessing complex patients.

**Keywords:** chronic pain; primary healthcare; multiprofessional; assessment.

## 1 Introduction

Pain that lasts over 3 months is defined as chronic pain [1]. About 35% of the Finnish population [1] and 19% of the European population [2] suffer from chronic pain of severe intensity. Chronic pain is one of the most common reasons for patients to seek health care [3–5], and is often a complex problem with psychological and social factors contributing to the pain, which significantly limits the patient's daily life [6–10]. Chronic pain often results in long sick leave and high healthcare use. Systematic reviews show moderate to strong evidence that multimodal rehabilitation (MMR) is effective for patients with chronic pain [5, 11]. MMR is based on the biopsychosocial model, which means that physical, psychological and social factors are considered (i.e. the entire complex problem of chronic pain) [12]. MMR is a cognitive-behavioural therapy programme performed in teams with participation of different professions. Common components of MMR are education, coping skills and physical activity/training.

A study from Northern Sweden found that only a quarter of all patients referred for assessment in specialist care hospital pain rehabilitation programs will receive MMR [13, 14], since MMR should only be offered to patients who have not been helped by unimodal rehabilitation (i.e. rehabilitation provided by one profession). MMR is an expensive intervention and should therefore be aimed at patients with complex problems. At most specialty clinics, referred patients initially undergo a multiprofessional

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team assessment. The patient is assessed by the team to decide which type of rehabilitation is best suited for that individual patient. Most studies do not describe how this assessment is carried out. Only a few studies [13, 15, 16] have evaluated this team assessment and shown that the assessment, together with a primary care rehabilitation follow up plan, could have positive results on individual pain experiences and return to work. Patient experiences of the multiprofessional assessment have not been studied through a qualitative approach.

Most studies of MMR are performed on the specialty level, and there are limited studies on MMR in primary healthcare. Recent studies show that patient experiences after primary healthcare rehabilitation are positive [17, 18], and one quantitative study found improvement in sick leave, depression, and social activity [19].

In Finland, patients with chronic pain are primarily treated in primary healthcare, and those who do not experience relief can then be referred to specialty care. MMR at the specialty level is one recommended option.

Studying patients assessed in other contexts is of interest since the few studies of multiprofessional assessment were conducted in a Swedish setting. The purpose of this study was to explore how patients experience the multiprofessional assessment project and the subsequent rehabilitation plan at a primary healthcare centre in Western Finland.

## 2 Materials and methods

This was a qualitative interview study conducted at a primary healthcare centre in Western Finland. The study was approved by the Ethics Committee of the Hospital District of Southwest Finland in April 2015 (ETMK:59/1802/2015).

### 2.1 Multiprofessional assessment

This study was part of a pilot project aimed at evaluating a new way of working with chronic pain patients, where they undergo a multiprofessional assessment and receive a rehabilitation plan. This has been done at the primary healthcare centre in Jakobstad, Finland since August 2015. Jakobstad is a bilingual city, where both Finnish and Swedish are spoken. Patients with chronic pain are recruited to a multiprofessional assessment. They fill out the Swedish Quality Registry of Pain Rehabilitation (SQRP) primary care questionnaire. SQRP is used

in Sweden to evaluate patients taking part in MMR [14, 20]. The patients then undergo an individual assessment where they sequentially meet a physician, physiotherapist, and nurse. Afterwards, the team meets and discusses the best rehabilitation design. If the team finds that further investigations are required, the patient is referred to specialty care. After this, a rehabilitation plan based on the team members' assessments and participant's wishes is outlined. The time required for completing these steps varies from a few weeks to many months, depending on the patient's problems. The rehabilitation plan may contain recommendations for physiotherapy, medication changes, contact with a social worker, a plan for lifestyle changes, or something else that the team considers essential to ease the individual's pain. The main responsibility on following the rehabilitation plan lies on the patients, and they are expected to participate actively in rehabilitation. The aim of the assessment is also to better coordinate patient care, which is done by a nurse coordinator whose goal is to facilitate future contact with healthcare. All of the patients can directly contact the coordinator when needed. One year after the assessment, results for each patient are evaluated using the SQRP-primary care questionnaire.

### 2.2 Subjects and setting

Each patient who entered the assessment project from August 2015 to January 2016 was recruited to this study. Criteria for entering the project were: pain lasting over 3 months, age between 18 and 65 years, a score of over 50 points on the Örebro musculoskeletal pain questionnaire [21, 22], and lack of access to a similar multiprofessional assessment through occupational healthcare.

For this study, participants must have finished the multiprofessional assessment. Twelve patients met these criteria. Each was contacted by telephone in February or March 2016, and asked to take part in an interview. Participants were informed that participation was voluntary. Two patients refused or did not show up for interview. Ten patients agreed to participate and were included in the study. Six were women and four were men. Their age spanned from 22 to 59 years, and they had gone through assessment 3–6 months prior to being interviewed. Since the evaluation of the assessment was done after 1 year, none of the participants had at the time of interviewing yet evaluated the results of their assessment. Table 1 shows background data of the participants.

**Table 1:** Participant background information.

| Participant number | Sex <sup>a</sup> | Age | Language in interview | Educational level <sup>b</sup> | Pain duration |
|--------------------|------------------|-----|-----------------------|--------------------------------|---------------|
| 1                  | F                | 38  | Swedish               | VUS                            | 10 years      |
| 2                  | F                | 23  | Swedish               | VUS                            | 6 years       |
| 3                  | M                | 37  | Swedish               | VUS                            | 5 years       |
| 4                  | M                | 40  | Swedish               | VUS                            | 1 year        |
| 5                  | M                | 48  | Swedish               | UAS                            | 3 months      |
| 6                  | F                | 22  | Swedish               | VUS                            | 7 years       |
| 7                  | F                | 41  | Finnish               | UAS                            | 3 months      |
| 8                  | F                | 59  | Finnish               | University                     | 5 months      |
| 9                  | M                | 50  | Finnish               | VUS                            | 30 years      |
| 10                 | F                | 25  | Swedish               | High school                    | 5 years       |

<sup>a</sup>F=female; M=male.<sup>b</sup>VUS=vocational upper secondary school; UAS=university of applied science.

## 2.3 Data collection

The interviews were conducted during February and March 2016, 3–6 months after the patients had finished the assessment and received their rehabilitation plans. Nine interviews took place at a local hospital and one was performed at the participant's home. Each participant gave written informed consent prior to the interview. Individuals were interviewed once, for a period of 15–45 min. Seven interviews were performed in Swedish and three were in Finnish. All interviews were performed by the first author, using an interview guide with open-ended questions in order to allow the participant to answer more freely. An interview guide was used as a tool for covering the same areas in each interview, even though the questions differ. The interview guide covered participant expectations and experiences of the multiprofessional assessment, their role in the assessment, and questions about how they view themselves and their future after going through the assessment.

All interviews were digitally recorded in MP3-format, transcribed verbatim in the language of the interview, and anonymized.

## 2.4 Analysis

The data was analysed by qualitative content analysis with an inductive approach [23]. Each interview was read through several times, to gather information about the participant's thoughts. The interview text was split into meaning units that included words, sentences and paragraphs, which were related through content and context. Each meaning unit was labelled with a code using OpenCode 4.03 software [24]. The Swedish and Finnish interviews were coded in Swedish. The first author coded all interviews, and the other authors each coded a few interviews. Throughout this process, the authors worked in close collaboration. Codes sharing a common content were grouped together to form preliminary categories. Preliminary categories were further processed into subcategories and the final categories. The first author documented her thoughts throughout the entire process, and used these notes to help find the preliminary categories during the analysis. Table 2 shows an example of how the analysis process works.

**Table 2:** An example of the analytical process.

| Examples of codes   | Subcategory                            | Category                      |
|---|--|-------------------------------|
| Felt that wellbeing was thoroughly examined                 |  |                               |
| Got a more thorough mapping of problems                     | Thoroughly examined                    |                               |
| Happy to get the chance of a thorough examination           |  |                               |
| Was thoroughly examined                                     |  |                               |
| Forced to think about their situation                       |  | More than just an examination |
| Talking with the nurse was an eye-opener                    |  |                               |
| The questions help you see yourself                         | The examination helps you see yourself |                               |
| The rehabilitation plan helps you think more about yourself |  |                               |

### 3 Results

Analysis of the interviews resulted in six categories concerning participant experiences of the multiprofessional assessment project and rehabilitation plan: *feeling chosen or not quite fitting in, more than just an examination, being affirmed, receiving support, confusion and disappointment, and taking and receiving responsibilities*. Table 3 shows the categories and subcategories.

Apart from these categories, participants also described their situations and experiences of healthcare encounters before entering the multiprofessional assessment, their results since entering the assessment, and their perception of the future. In the following text, the results of each category will be presented. This will start with recollections of experiences before entering the assessment, and end with their look toward the future. The categories are illustrated with quotes from the interviews.

Many participants described a disappointment in earlier contact with primary healthcare. Commonly

mentioned topics were how healthcare does not take chronic pain seriously, they felt forgotten by primary healthcare, and an overall discontent with healthcare experiences prior to the multiprofessional assessment. Generally, participants described a negative experience of the pain and its effects on their ability to work or study, as well as how it affected their families. Most participants entered the assessment hoping to receive some pain relief.

#### 3.1 Feeling chosen or not quite fitting in

This category describes different feelings participants had when entering the assessment. Most expressed a feeling of thankfulness, and of being chosen when they were given the opportunity to participate in the assessment. They felt the assessment was important, as a place where people suffering from chronic pain could be taken seriously and offered help. The entire experience was described as a positive surprise.

*“I have been very grateful. [...] I have a new opportunity. It’s such a wonderful feeling.” – Participant 7*

However, some of the participants did not feel like they actually belonged in the assessment. This was attributed to different reasons, such as not having enough pain or not having the right type of pain.

*“I thought before [as I was offered an assessment], ‘What is this, really?’ [...] Because I am not that sick.” – Participant 10*

Some participants described one of the most important motivators to participate was to be able to help other patients with similar problems, since participants were told that the assessment was a part of an evaluation project.

#### 3.2 More than just an examination

Participants found it important to be thoroughly examined. Several of them described satisfaction in this aspect of the assessment. They were satisfied with how the examination covered more than just the most obvious dimensions of their pain.

*“Instead of being sent here and there, you know, someone really looks into what is behind it all.” – Participant 3*

The examinations were described as helping participants to see themselves and their situations in another light. In that way it also likely fostered their rehabilitation process.

**Table 3:** Categories and subcategories.

| Categories                             | Subcategories   |
|--|---|
| Feeling chosen or not quite fitting in | A feeling of being chosen<br>A feeling of not fitting in<br>Wants to help others through own participation<br>Thoroughly examined<br>The examination helps you to see yourself<br>Wants to find a cause<br>Trusts the team’s competence<br>Could not identify with the questionnaire<br>The follow-up is important<br>To be seen and taken seriously<br>Feels that the team has taken the time needed<br>Talking about it helps<br>Being taken care of<br>To be treated well by the team<br>Getting support<br>Having a contact person<br>To be spurred<br>Confusion<br>Had been expecting more<br>Did not have the desired effect<br>Disappointed in the team<br>Had to seek aid elsewhere |
| Being affirmed                         | I have to take responsibility<br>It is hard to do it on your own<br>My own role in the teamwork   |
| Receiving support                      |   |
| Disappointment and confusion           |   |
| Taking and receiving responsibilities  |   |

*“Because you had to sit and think when you were with [the coordinator]. Think a little about how you actually live, and treat yourself. [...] It was an eye opener.” – Participant 2*

Participants thought that a thorough examination was important because they had such a strong desire to find a cause to the pain. They described a strong trust in the team's competence, and therefore trusted the team's actions. Some of the participants found that answering the SQRP-questionnaire was difficult. Others expressed satisfaction with the questionnaire and how well it covered all aspects of their pain problems. The follow-up was also described as important. One reason was that the follow-up provided motivation, and helped participants see more clearly how they had improved. The follow-up was felt to be proof that they would not be abandoned to take care of themselves.

*“It is really important that it gets followed up, that it actually has changed. That it isn't just abandoned.” – Participant 1*

### 3.3 Being affirmed

In this category, participants described different aspects of satisfaction with the way they were treated by the team members. When compared to treatment outside of the team, they were especially satisfied. The experience of being taken seriously by team members was a big relief. This attitude helped to create a feeling of truly being seen, and this was described as important and increasing trust in the team. Examinations by each of the professions on the team were experienced as important because they made the patients feel important. The fact that the team felt that participants were worthy of a thorough examination was valued and played an important role in the rehabilitation process. This was often compared to earlier healthcare encounters.

*“...and I felt like she [the coordinator] actually wanted to help. And took seriously what I said, and not just looked at the papers.” – Participant 10*

Another positive experience was how team members took the time needed to do their jobs thoroughly, including examinations and medication follow-up.

*“...we were discussing, I can't remember anymore how long I sat there, but it felt like I sat there for two hours and discussed all the possibilities.” – Participant 2*

The discussion was described as important, how getting the chance to talk about the situation was helpful and

improved the participant's mood. The team members were described as good at listening.

*“Sometimes you are in a bit of a better mood, when you have been talking to someone, [...] already that affects a lot in itself.” – Participant 9*

Another important aspect was the feeling of being taken care of. Sometimes just meeting someone was helpful, and the participants also described a relief in being helped. The participants were mostly pleased with how they were treated by the team, especially compared to earlier health care encounters.

### 3.4 Receiving support

Team members were described as providers of support. The fact that the team, especially the coordinator, stayed in touch with the participants after the assessment provided participants with a feeling of safety. When extra team support was needed, staying in touch was perceived as an important factor. Participants thought that having a team contact person was important. Contact with the healthcare system at large was eased, mostly by the work of the coordinator. However, some participants did not feel that things had become any easier, but expectations that future health contact would become easier were expressed.

*“Because I know that if I have something to ask or anything [...], I know that I can call her [the coordinator] and ask.” – Participant 10*

Participants described how team members spurred them on by providing extra motivation to help them reach the goals in their rehabilitation plan. Providing concrete goals and a clear rehabilitation plan was an important motivational boost. Some participants described a rise in motivation from knowing that the team had expectations that they would achieve their goals.

*“But it still kind of spurs you that she will call and ask, and I don't want to sit and lie to her. So you... do it a bit better then.” – Participant 2*

### 3.5 Confusion and disappointment

Participants were less pleased about some aspects of the assessment. Some were confused by the assessment, and this was primarily due to an experience of not receiving enough – or any – information. There was some confusion

about the meaning of terms related to the project, for example, what the coordinator did, what was included in the assessment, and what the rehabilitation plan was. Some participants explained that they found it difficult to know which healthcare professionals were a part of the team at times. Sometimes the information provided increased confusion rather than making things clearer.

*“I was mostly very confused, because I didn’t understand at all [after receiving information prior to the assessment].” – Participant 2*

On the other hand, there were participants who were satisfied with the information provided and felt they received enough information at the beginning of the assessment.

Some were disappointed because they expected or wanted more (e.g. more examinations during the assessment, more meetings with team members).

*“Well, I remember that I was thinking ‘Oh, was that all?’.” – Participant 9*

Some participants wished for a different type of rehabilitation. There was a strong desire to find something other than medication to ease the pain. Some said that they did not get their desired results from participation. Slight disappointment with the team that was mainly due to poor communication was described. For example, when the participant had a different opinion than the team about the cause of pain, or the participant did not understand why certain examinations were done.

*“My knees were x-rayed. [...] I have never had pain in my knees.” – Participant 8*

Some participants described how they had to seek private healthcare to sort out their problems because it took too long to get results, or they were disappointed in the care offered through the assessment.

### 3.6 Taking and receiving responsibilities

Even though participants received help and support from the team, in the end they felt that it was up to them whether or not they were going to get better. The team helped them by providing the opportunity to get better, but only the participants themselves could make the required decisions. Even though some participants said they had not taken the required steps, they knew they had to take them in order to get better, and said that they could manage to do so.

*“I have learned that I would really need to get a grip and do something about it myself.” – Participant 2*

Some of the participants described a strong motivation to take responsibility in the rehabilitation plan in order to achieve the desired results, and were willing to work hard for this.

*“I want to do all that I can to get this arm back in shape.” – Participant 7*

Others found it hard to manage it all on their own, expressed how hard it was to take responsibility and stick to the rehabilitation plan. However, most of the participants felt that they had successfully taken the responsibility of following the rehabilitation plan at home, and thought that they were managing well with this. They felt they were expected to take on a lot of responsibility.

*“Well, my rehabilitation plan is mostly that I do all these exercises myself.” – Participant 8*

Participants were satisfied with their contribution to the team. They described participation as being able to choose between different options of care, and felt that the team listened to their proposals.

*“...I have discussed (it) with a few people, who all have asked what my opinion is.” – Participant 9*

Some described how they wanted to participate more in developing the rehabilitation plan, while others felt that they had no need to participate to a greater extent.

### 3.7 Effects of the assessment and a look at the future

Most participants experienced an improvement in their situation, but some did not experience any relief of their pain problems. Some participants expected that the pain would continue to improve because of the assessment. When asked to describe how they saw their future, they had a positive view that ranged from being able to return to work, to being completely pain-free. Some participants did not expect their future to look any brighter than their present. When answering questions about future concerns, participants were afraid that the pain would increase again, and had some worries about what the future would bring in terms of pain, complications, and other related problems.

## 4 Discussion

This was a qualitative study exploring participant experiences of a multiprofessional assessment for chronic pain. The participants were generally positive toward the assessment, and even felt they had been exclusively chosen. Experiences important to the participants were being thoroughly examined, and being validated by the team members. These experiences were often compared to previous bad experiences during healthcare encounters. Interaction with the team was described as important, and the team was viewed as taking on different roles, depending on what was required (i.e. giver of support, contact person, or provider of motivation). Responsibilities and participation were also explored. Participants felt that in the end, a lot of the rehabilitation plan was up to them, and they had differing opinions on how well that worked. When participants described negative experiences of the assessment, confusion and certain disappointments, mostly caused by bad communication, were mentioned.

Participants were satisfied with how the team took care of them in different ways, and this was in contrast to earlier negative experiences in healthcare encounters. The patients' positive experiences and outcomes were likely helped by healthcare professionals with great experience in meeting and treating patients with chronic pain. In this study, the act of being taken seriously was important and increased trust in the team. Earlier studies have noted that the effects of being believed help patients better cope with their situation [25, 26]. Affirmation, trust, and respect are important tools in the rehabilitation process [17, 27], and this is in accordance with participant experiences in this study. Several studies [17, 28, 29] describe patient appreciation of caregivers who are able to listen to them, provide support and feedback, inspire confidence, and communicate well. Being confirmed is reported to be important in healthcare encounters of patients suffering from pain [30].

Eldh et al. [31] studied what patients, who were recently in contact with healthcare, are most likely to define as patient participation. The most common answers were a chance to talk about their problems, staff listening to the patient, and getting an explanation of their problems. In this study, participation was mostly described being able to choose between the different rehabilitation options provided by the team, and feeling that their ideas were listened to and considered. This is consistent with another study about experiences during participation in MMR [17].

Thorough examinations were important, and our participants were mostly pleased with the diversity of

examinations provided in the multiprofessional assessment. Parsons et al. [32] describe how patients experience a thorough examination as a sign that the team is taking their pain seriously. This was also noted by participants in the current study. The process of examinations helped participants see themselves in a new light. Understanding theories about shame and stigmatization are important in understanding the negative self-image that the patients with chronic pain often have [25]. In the present study, the thorough examination and affirmation from the team helped participants understand their negative self-image. One reason for stigmatization is that chronic pain is a disease with low status within the healthcare community [33–35]. Low status can be seen in participant descriptions of earlier healthcare encounters. From this viewpoint, it is easier to understand why some participants felt that they did not belong in the project, or that a big motivator for participation was to help others with similar problems. In both cases, participants were aware of the low status of their disease, but reacted to it differently. In the first case, they rejected the low-status identity, thus trying to avoid the feelings of shame arising from it [36]. In the latter case, participants tried to raise their status by creating more awareness about the disease, perhaps thus hoping to raise the status of chronic pain problems.

Some participants felt confused; this seemed to relate to information and communication. Another frequent feeling was disappointment in the examination and meetings with team members. The reason for these negative feelings may have been poor communication between the team and the participant. In earlier studies, the importance of communication and finding a mutual understanding of the problem have been highlighted as easing the way to a solution [17, 29].

Multiprofessional assessment in primary healthcare is a new approach to handling chronic pain in Finland. No studies have compared the results from only an assessment and a plan vs. a full MMR program in primary care. Participants in this study felt that many of the responsibilities in the rehabilitation plan were, in the end, up to them. Some found this hard, and others showed strong motivation to handle this situation. This shows how the design of the rehabilitation plan is good for some personalities, while others might need more support than just an assessment and plan. Oosterhof et al. [37] and Verbeek et al. [29] describe how a shared understanding of pain can help patients achieve positive results, and help patients more easily take responsibility for dealing with pain [37]. Capturing those patients who need more support to take on their own responsibility might be important in the future.

## 4.1 Methodological discussion

Two of the authors have extensive experience in qualitative studies, and the research group consisted of different professionals, as well as capturing clinical experiences from speciality clinics and primary healthcare. This permitted different perspectives on the findings and strengthen the study credibility and trustworthiness. One of the authors had work experience with MMR. During the analysis, the authors reflected on whether their clinical experiences might have influenced the analysis. The same person (AL) performed all the interviews and did the core coding of the interviews, as she could better understand the context because she saw the participant's body language. Two seminars were arranged with personnel from two speciality clinics to enhance reflections on the results and further strengthen the credibility.

The participants' various experiences (age, education, duration of pain, and gender) strengthen the credibility as we capture variety aspects on the research-question. For the same reason, it is a strength that participants were both Finnish-speaking and Swedish-speaking. However, it is a weakness that participants only came from one healthcare centre. The work would have been further strengthened if we had discussed and verified the results of the analysis with the participants. This was not possible due to time schedule.

To enhance dependability, the researchers prepared an interview guide to let all participants have the chance to reflect on all areas.

According to Graneheim and Lundman it is the reader's decision whether or not the findings are transferable to other contexts [23]. To facilitate transparency, we have described the context, and the participants in the study and clearly described the sampling and analysis procedure. Ethical considerations were made. All participants in the study gave written informed consent prior to the interviews, and were informed that they could stop the interviews whenever they wished. They were informed that their assessment and rehabilitation plan would not be affected by their decision to join the study or not. All interviews and information were anonymized when transcribed, and the results are not presented at an individual level. The participants were informed that anonymized quotes from the interviews could be used in the study reports.

## 5 Conclusion

This qualitative study provides an interesting and unique view into how participants experience multiprofessional

assessment of chronic pain in primary healthcare. Patient experiences were mostly positive, and participants felt they got a richer, complementing picture of chronic pain, as well as better support than they received in earlier healthcare appointments. The patient experiences of multiprofessional assessment were similar to experiences found in other studies of patients participating in MMR. This finding indicates that a minor intervention with a multiprofessional assessment could be of value for patients with chronic pain.

### Authors' statements

**Research funding:** Authors state no funding involved.

**Conflict of interest:** Authors state no conflict of interest.

**Informed consent:** Informed consent has been obtained from all individuals included in this study.

**Ethical approval:** The research related to human use complies with all the relevant national regulations, institutional policies and was performed in accordance with the tenets of the Helsinki Declaration, and has been approved by the authors' institutional review board or equivalent committee.

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