ACCESS TO PUBLIC HEALTHCARE SERVICES AND WAITING TIMES FOR PATIENTS WITH CHRONIC NONMALIGNANT PAIN: FEEDBACK FROM A TERTIARY PAIN CLINIC

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SUMMARY – Evaluation of healthcare services by patients is an essential component of quality improvement. We studied association between patient satisfaction and accessibility of healthcare services to patients with chronic nonmalignant pain. A hundred patients from the Pain Clinic, Split University Hospital Center, Split, Croatia, completed a 27-item questionnaire about their condition, duration of chronic pain treatment, access to healthcare, waiting times for various healthcare services, and their satisfaction with the pain clinic and health system. Patients were referred to the pain clinic after median of 4.5 years of chronic nonmalignant pain duration. Median waiting time for pain clinic appointment, seeing a specialist and performing diagnostic procedures was 10, 30 and 90 days, respectively. However, some patients waited for an appointment to a specialist and diagnosis for up to one year. Negative association was found between waiting time for pain clinic appointment and healthcare system grade (r=-0.34, *P*=0.02). Patient suggestions for improving pain clinic were more staff, better approach to each patient, and better organization. In conclusion, access to public healthcare for patients with chronic nonmalignant pain should be better to improve patient satisfaction and provide better care.

Key words: *Pain clinic; Patient satisfaction; Chronic nonmalignant pain; Public healthcare system; Healthcare services*

Introduction

The evaluation of services by patients is an essential component of quality improvement. Recent research provided new insights into the patients' perception of illness and medical treatment, as well as patient satisfaction with health services[1]. Patients experience major deterioration in health-related quality of life and well-being while waiting for chronic pain treatment. Waiting times amounting to as little as 5 weeks were already associated with deterioration and it has been concluded that waiting times longer than 6 months are unacceptable[1]. However, there are very few reports on the waiting times among chronic pain patients associated with access to healthcare services. Even though cost-effective methods for pain care are available, pain, both acute and chronic, is undertreated and timely access to care is a growing problem in nations with access to the best in healthcare[1].

When visiting a pain clinic, patients expect an explanation or improved understanding of their pain, as well as cure or relief of the pain[2]. For most of the patients, the most satisfying outcome of the visit to

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Received May 24, 2012, accepted January 18, 2013

a pain clinic is relief or control of pain, explanation or complete cure of the pain problem[2]. This shows that patients with chronic pain generally have high expectations from the pain clinic. But, it is not known whether ease of access to pain clinic and other health services related to chronic pain have an influence on patient satisfaction with a pain clinic or health system. It has been reported previously that less waiting for appointments is a significant predictor of treatment satisfaction[3].

It is not known how long patients with chronic nonmalignant pain have to wait for an appointment to a pain clinic, or other prescribed diagnostic procedures and therapies, and how this affects their satisfaction with healthcare system. We hypothesized that patients using their basic health insurance and public health care institutions need to wait more than 5 weeks for referrals, diagnosis and treatment related to chronic nonmalignant pain, a period indicated by Lynch *et al*. to be already detrimental for patients[1].

Materials and Methods

The study included 100 patients with chronic nonmalignant pain who presented for a second (follow-up) visit at a tertiary pain clinic at Split University Hospital Center, Split, Croatia, from January 1 to June 1, 2010. The inclusion criteria for patients were having pain that lasted for more than 6 months, having basic state-provided health insurance, attending the pain clinic for the second time due to chronic pain, having been referred to a specialist and diagnostic follow-up, and having completed these referrals/diagnostics. The exclusion criteria were acute pain lasting for less than 6 months, malignant pain, attending private clinics for consultations with specialists, diagnosis and therapies.

The process of data collection was undertaken at the Pain Clinic, Split University Hospital Center. All patients visiting the Pain Clinic have an appointment. At the time of appointment, before consultation with their physician, patients were invited to participate in the study. Patients received information about the study and were asked if they had any questions. They were told that their participation in the study was not associated with any potential harmful consequences. They were also told that there would be no negative consequences for their health or scheduled appointment if they decided not to participate. Participants were not offered financial remuneration for participating in the study. Consecutive sampling design was used, and all invited patients eligible for inclusion in the study accepted the invitation (100% response rate). Before entering the study, all patients provided an informed consent.

For the purpose of the study, patients completed a 27-item self-administered questionnaire that was developed for this study. The questions were about their condition, accessibility of health services within and outside the pain clinic and patient satisfaction with the pain clinic and healthcare system. The questions about patient satisfaction with pain clinic and healthcare system were scored on a discrete ordinal scale from 1 to 10, framed by 'very satisfied' at 10 and 'very unsatisfied' at 1. There were also open-ended questions for patient suggestions to improve access to healthcare for chronic pain patients. The coding of answers was done by two authors (PT and LP) and consensus about the codes was reached.

Only one researcher (MJ) was in contact with patients and aware of the patients' identity. All the questionnaires were anonymized to protect patient identity.

Data were analyzed using GraphPad Prism Version 4.00 for Windows (GraphPad Software Inc., San Diego, CA, USA). Descriptive statistics and correlation analyses were calculated. Difference in patient satisfaction was calculated with Mann-Whitney test. Continuous variables were expressed as mean ± SD, or median and range. Categorical variables were expressed as frequencies and percent. Statistical significance was set at $P<0.05$.

The study was approved by the Ethics Committee of the Split University Hospital Center (Ethics Committee Approval No. 2181-147). The study was conducted according to the principles expressed in Declaration of Helsinki.

Results

The study included 100 patients, 82% of women and 18% of men. The mean patient age was 57±14 (range 21 to 87) years. Painful conditions that brought the majority of patients (76%) to the pain clinic were

musculoskeletal spine disorders (Table 1). The median duration of their chronic pain was 4.5 years. The most commonly used analgesic medications were nonsteroidal anti-inflammatory drugs (NSAIDs) (Table 1). There were 15% of patients who did not take prescribed drugs regularly, and 33% of patients having stopped prescribed pain medications, such as indomethacin, diclofenac, alendronate acid, tramadol and gabapentin, due to side effects. Disorders of gastrointestinal tract, headache, dizziness and disorientation were the most common side effects. Patients reported allergic reactions associated with diclofenac, acetylsalicylic acid and penicillin.

Table 1. Characteristics of patients with chronic nonmalignant pain who visited pain clinic for the second time and gave feedback about waiting times for healthcare services in the public healthcare system

Variable	Value (n, %)
Diagnosis	
Musculoskeletal spine disorders	76
Herpes zoster	4
Migraine	7
Osteoarthritis	3
Neuralgia	6
Other	4
Medications used	
Nonsteroidal anti-inflammatory drug	57
Opioid	10
Anticonvulsant	6
Other	17
No response	10
Regular usage of prescribed drugs	
Yes	85
No	15
Having old drugs at home	
Yes	16
No	83
No response	1
Stopped taking pain medications due to side effects	
Yes	31
No	64
No response	5
Willingness to be treated with opioids	
Yes	48
No	32
Undecided	20
Non-pharmacological therapies prescribed	
Physical therapy	72
Acupuncture	7
None	21

When asked about their willingness to be treated with opioids, 40% of patients said they would refuse opioids if doctor prescribed them, due to the lack of information (n=14), fear from addiction (n=10), or unspecified reasons. Nonpharmacological therapies prescribed to study patients in the pain clinic were physical therapy (n=72) and acupuncture (n=7).

Median waiting time for an appointment at the pain clinic was 10 days; to see a specialist patients had to wait 30 days, and to make recommended diagnostic procedures it took 90 days (Table 2).

Most of the patients had found out about the pain clinic from primary care physicians or specialist physicians, while 36 patients heard about it from other sources, such as friends and family (Table 3). Only a few patients had problems with getting a referral to the pain clinic (Table 3). Less than one-third of patients (26%) arranged their visits by phone while others did it in person at the clinic.

Detailed explanation of their painful condition was provided to 74% of patients by previously consulted physicians, which was significantly less than in pain clinic, where physicians provided detailed explanations to 98% of patients ($P<0.01$). Patients that were admitted to a hospital or rehabilitation center due to their painful condition most often rated this treatment as 'average'. Treatments prescribed in the pain clinic were deemed helpful by the majority of patients (Table 3). Most of the patients expected reduction of

Table 2. Waiting times for appointments, diagnosis and therapies in state-owned institutions

Healthcare service	Median days (range)
Appointment in pain clinic	10 (0-180)
Therapies provided in pain clinic	18 (0-150)
Specialist appointment based on referral from pain clinic	30 (0-300)
Physical therapy	60 (0-360)
Diagnostic procedures recommended in pain clinic	90 (0-360)

pain, while others expected total removal of pain and complete recovery (Table 3).

Table 3. Patient experiences with treatment within and outside the pain clinic

Patient experiences	Value
How the patients found out about the pain clinic	
Primary care physician	36
Specialist	24
Other	32
Problems with getting a referral to pain clinic	
Yes	4
No	90
Method of arranging a visit to the pain clinic	
By phone	25
Personally in the clinic	72
Whether therapy prescribed by a pain clinic physician helped	
Yes	73
No	9
Some	11
Rating of the stay in the hospital or rehabilitation center	
Bad	5
Good	32
Excellent	13
Detailed explanation of the condition by pain clinic physicians	
Yes	98
No	2
Detailed explanation of the condition by other physicians	
Yes	74
No	25
Expectations from the pain clinic	
Reduction of pain	74
Removal of pain	5
Recovery	3
Proposals for improvement of pain clinic	
More staff	37
Better organization	9
Better approach to the patient	9
P*roposals to change the state-owned healthcare system*	
Restructuring of the healthcare system	33
Shorten the waiting time	18
Payment for whole treatment	2

All patients responded that they were generally satisfied with physicians in the pain clinic. When rating their satisfaction, the median grade given to the pain clinic was 10 (range 7-10), mean 9.6±0.7. Median grade for the entire healthcare system was 5 (range 1-10), mean 5.9±2.2. There was significant difference between these two grades (P<0.001). Two-thirds of patients had a proposal for improvement of pain clinic, which referred to more staff, better organization and better approach to patients (Table 3). Patients also had suggestions for improvement of the state-owned healthcare system that addressed restructuring of the whole system and shortening waiting times (Table 3).

Correlation analyses were made to see whether there was an association between access to healthcare, measured by days patients had to wait for different services, and patient satisfaction. We did not find significant correlation between pain clinic grade and waiting times for pain clinic appointment, but we did find negative association between this time and healthcare system grade (r=-0.34, P=0.02). Healthcare system grade negatively correlated with waiting time for specialist appointment (r=-0.27, P=0.02), and also with waiting times for diagnostic procedures (r=-0.39, P=0.002).

Discussion

We found that patients with chronic nonmalignant pain, treated in the public healthcare institutions, did not wait much to access tertiary pain clinic and specialist referrals, but waiting times for accessing physical therapy and diagnostic procedures were excessive. Furthermore, patients were treated for painful conditions for 4.5 years before being referred to the tertiary pain clinic for the first time, and most of the patients found out about the clinic from their primary physicians or other specialist physicians.

While pain clinic was accessible once they tried to make an appointment, and patients waited for a median of 10 days to see the pain clinic specialists, waiting times for diagnostic procedures, appointment with other specialists or receiving recommended treatments were long, sometimes up to one year. Patients waited longest for diagnostic procedures, and as a consequence 24% of patients decided to make the prescribed diagnostics in private clinics and to pay for it out of the pocket. Therefore, it is not surprising that

patients recommended shortening of waiting times as one way of improving the state-owned healthcare system.

Patients expressed high satisfaction with the pain clinic and gave it the highest grades, in contrast to the grades given to the entire state-owned healthcare system. Most of the patients indicated that treatments provided by pain clinic helped them. This may indicate their enthusiasm for the tertiary pain clinic, where they had an access to pain specialists with experience in treating painful conditions.

The concept of pain clinics is very novel in Croatia and the pain clinic where this study was conducted was founded in 2005. On average, 800 patients visit this clinic *per* year, and most of the patients are women with musculoskeletal pain and median age 60 years[4]. Since the clinic works five days a week, this is not a heavy burden of patients and waiting times are not long. As Kumar wrote in 2004, the concept of pain clinics has not yet reached the pivotal point of acceptance by the medical community or by the many individuals who come into contact with pain patients[5]. It could be investigated whether patients in the general population are aware of the existence of a tertiary pain clinic.

In this study, we did not find an association between waiting times and patient satisfaction with pain clinic, but we did find negative association between waiting times and grades for the entire state-owned healthcare system. The longer patients waited for their diagnosis, the worse was the grade they allocated to the healthcare system.

Treatment satisfaction is an increasingly popular outcome measure in pain management. While it is a subjective variable, it may nonetheless reflect the quality of care and it may predict other important patient behaviors[6]. McCracken *et al*. showed that the strongest unique predictors of treatment satisfaction were the patients' feeling their evaluation was complete, believing they received an explanation for clinic procedures, and finding that treatment helped them improve their daily activity[6]. Questions regarding satisfaction and opportunities for patient comments may help us obtain a fuller picture of patient perceptions of treatments[7].

Almost all patients in our study received detailed explanations of their painful condition by the pain clinic physicians, showing significant difference between pain clinic and previously seen physicians. Providing patients with information and explanations of their pain is perhaps the most cost-effective way to avoid unwarranted imaging while satisfying patients' expectation of care[8].

Our patients' expectations were reduction or complete removal of pain, and recovery from the painful condition. This is in agreement with previous research in which the patients' highest priorities for their treatment were physical or functional improvements, including less pain, pain-free periods, and being able to do more everyday activities[9]. Patients state a reduced pain level as their major goal of treatment; thus their success in reaching that goal likely influences their perceptions of the helpfulness of many treatment modalities[7]. One of the findings of our study is that 40% of patients would refuse opioid therapy, citing the lack of information and fear from addiction as the main reasons. This result indicated that patients are not sufficiently acquainted with the possibilities of opioids, and that more patient education on this subject is needed. A recent report states that problems also arise among patients who accept prescription of opioids, as 50% of the patients reported difficulties with prescribed opioids, 24% reported elevated psychosocial problems, and 36% reported higher concerns about controlling their use of prescribed opioids[10].

In 2009, the International Association for the Study of Pain (IASP) established the Task Force on Wait-Times to identify appropriate wait-times benchmarks for treatment of chronic pain and produce a document endorsed by IASP. In 2010, the first draft of the recommendations was published and circulated among IASP members; it recommends that patients with persistent long-term pain without significant progression should not have wait times longer than 4 months[11].

In our study, patients on average did not wait for more than 4 months for an appointment with pain clinic physicians or other specialists, for diagnostic procedures or therapies, but some patients waited for these up to one year. Patients had suffered chronic pain for median 4.5 years before they were referred to the pain clinic for the first time. A recent systematic review has identified that waits of six months from the time of referral to treatment for chronic pain are

associated with deterioration in health-related quality of life and psychological well being, with an increase in depression score[1]. In Croatian population as well, it has been shown while evaluating satisfaction with healthcare and state institutional support that these variables may be associated with the severity of psychological symptoms, indicating the possible importance of improving institutional policies[12].

The majority of patients in the study Pain Clinic are those with musculoskeletal diseases[4]. Considering significant waiting times for conventional therapies, patients with musculoskeletal pain may decide to search help from complementary and alternative medicine, even though conventional medicine remains the main mode of treatment for patients[13]. Our previous study revealed that family medicine physicians and anesthesiologists are considered the most important healthcare professionals in chronic pain treatment, and therefore patients with chronic nonmalignant pain should have easier access to the professionals in the pain clinic[14].

Patients' suggestions for improvement of pain clinic included employing more staff and better organization. Previous research on improving efficiency and patient satisfaction showed that operational changes and education of staff would lead to higher patient satisfaction[15]. A more intensive examination of patient expectations and clinical interaction during pain clinic visits is important because it may lead to better understanding of this process[2].

Recognizing that patient decisions have a significant and growing impact on the healthcare industry, new healthcare directions will include an analysis of patient satisfaction. Analysis of patient flow and clinic operations may lead to alterations in clinic processes, improve customer service, and implement changes in provider roles. These modifications may result in an improvement in patient satisfaction and a reduction in waiting time with minimal economic impact[15].

The combination of lengthy wait-times along with a shortage of highly qualified personnel available to assist in multi-modal and multidisciplinary chronic pain management argues for innovative solutions to meet the demand[1]. Innovative solutions should include initiatives enhancing self- and community-based care of patients with chronic pain, prevention and early intervention, and enhancement of multidisciplinary pain services[16]. It has been suggested that patient education on what to expect from medication and on limitations of therapy will maximize the benefits of drug treatment[17].

Understanding patient symptoms from their perspective, giving them responsibility for their own illness, and education regarding simple and timely medical interventions can make considerable difference[17].

In conclusion, monitoring of the ease of access to public healthcare services is important for quality assurance purposes. Referring patients to a pain clinic 4.5 years after the beginning of their pain is too long. Shorter waiting and better organization of existing services for chronic patients could improve patient satisfaction and pain outcomes.

Acknowledgment

We are grateful to all patients who participated in this study.

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Sažetak

DOSTUPNOST ZDRAVSTVENE SKRBI I VRIJEME ČEKANJA NA PREGLED BOLESNIKA S KRONIČNOM NEMALIGNOM BOLI: POVRATNE INFORMACIJE TERCIJARNE AMBULANTE ZA LIJEČENJE BOLI

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Procjena zdravstvene skrbi od strane bolesnika je važna sastavnica sustava kontrole kvalitete. Istražili smo povezanost zadovoljstva bolesnika i dostupnosti zdravstvene skrbi za bolesnike s kroničnom nemalignom boli. Sto bolesnika ispunilo je u Ambulanti za liječenje boli Kliničkog bolničkog centra Split upitnik od 27 pitanja vezanih za dijagnozu, trajanje boli, pristup zdravstvenoj skrbi, duljinu čekanja različitih usluga i njihovo zadovoljstvo sustavom. Utvrđeno je da su bolesnici patili od kronične boli prosječno 4,5 godine prije nego su upućeni u ambulantu za liječenje boli. Medijani vremena čekanja za pregled u ambulanti za liječenje boli, pregled specijalista i dijagnostičke pretrage bili su 10, 30 odnosno 90 dana. Pojedini su bolesnici čekali godinu dana na pregled specijalista i pretrage. Negativna povezanost utvrđena je između duljine čekanja i ocjene koju su bolesnici dali zdravstvenom sustavu (r=-0.34, P=0.02). Prijedlozi bolesnika za poboljšanje usluga u Ambulanti za liječenje boli su bili: više osoblja, bolji pristup svakom bolesniku i bolja organizacija. Zaključno, pristup zdravstvenoj skrbi bolesnika s kroničnom nemalignom boli trebalo bi poboljšati prema važećim međunarodnim smjernicama.

Ključne riječi: *Ambulanta za liječenje boli; Zadovoljstvo bolesnika; Kronična nemaligna bol; Zdravstveni sustav; Zdravstvene usluge*