



## Observational studies

# Patients referred from a multidisciplinary pain clinic to the social worker, their socio-demographic profile and the contribution of the social worker to the management of the patients

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## ABSTRACT

**Background and aims:** Social factors and social environment shape the pain behavior of patients. Social workers support pain treatment in a multidisciplinary pain clinic by altering the social environment of a patient. Even though a social worker in a multi-professional care team contributes to the care of select, severely pain-afflicted patients extensively, neither the patient socio-demographic status nor interventions by social workers have been systematically documented. Only individual case histories have been published. Developing social work activities, which have potential financial consequences, for example, requires charting the current situation prior to systematic research into the efficacy of individual social work interventions.

**Methods:** This study systematically details the performance and work volume of the social worker, as well as the socio-demographics of patients during a 16-month period in a multidisciplinary pain clinic of a university hospital.

**Results:** Fifty-five patients were included. Twenty-nine were women and 26 men. They were about 10% of all patients seen at the pain clinic during the same time. Most of the patients were at their middle age. The largest group of subjects worked in public or other services. The second largest group consisted of those working in stores, hotels and restaurants. Over half of the subjects worked in the service industry. Since the subjects had scant vocational education, they worked mainly in manual labor. Most of the patients had problems with making a living, signifying that a major number of the patients visited the social worker because of financial problems. About half of the patients were indebt and three were undergoing debt counseling. Of homeowners, 21% were indebt, while the portion of those living rented accommodation was almost two thirds. All patients seen by the social worker received some form of public assistance. Over half of the patients had participated in rehabilitation assessment. The social worker saw 39 patients once, one patient twice and 15 patients three or more times. The duration of a visit was typically 1–2 h. The issues of a patient are addressed by contacting authorities and negotiating with other health care staff. According to the used 'SOSU' classification data, the social situation was charted for 49 patients, while the benefits and assistance provided by the Social Insurance Institution of Finland was discussed with half of the patients. The social worker discussed employment based pension with about a third of the patients. Social assistance, the last-resort economic assistance under social welfare, was considered with one fifth of the patients. Psychosocial work was recorded for 19 patients, comprising longer-term, supportive discussion.

**Conclusions:** The majority of the patients is of active working age but their working capacity is often decreased. However, they have difficulties in getting compensation for reduced ability to making a living. Hence, they have economic difficulties of various types and need counselling and support.

The main duty of the social worker appeared to be advising the patient in using the social welfare system, as the clients turned out to constitute a marginalized group.

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## 1. Introduction

Social factors may shape pain behavior and either decrease or increase the risk of pain chronicity [1,2]. Social disadvantage is very common in chronic pain patients [3]. Social work interventions may reduce social factors which potentially deteriorate the condition of a pain patient [1,2,4,5]. Treatment recommendations may not be followed if a patient is coping with extreme socioeconomic disadvantage and related stressors. Social work may be needed to overcome these factors [3]. Social work promotes social change, problem solving in human relationships, and the empowerment, and liberation of people to enhance well-being [6].

In a multidisciplinary pain clinic setting, the social worker contributes to the planning and implementation of social interventions [4,5]. However, there are no cohort studies on social workers' interventions to enhance the social conditions of chronic pain patients. Searches into the Medline database or social work publication databases, for example, return no hits on quantitative and systematic studies that explore input from social workers supporting treatment in multidisciplinary pain clinics. Only case histories have been published on this topic [7–9]. If more information was available on supporting pain management activities, it might contribute to making pain treatment and the care system in general more efficient [10]. In order to develop the role of social worker to better support pain management and treatment in pain clinics, the current situation should be systematically described.

Social work interventions are always determined by the sociodemographic situation of the clients [8,10]. Interviews focusing on the patient's social situation are crucial to guide interventions by social workers for pain patients [5].

The objectives of the current study are to describe (1) the activities of a social worker at a pain clinic, and (2) the social profile and economic situation of the target patients. This study charts these factors at the Helsinki University Central Hospital multidisciplinary pain clinic.

## 2. Methods

### 2.1. Subjects and statistical analyses

The subjects included in the present study were patients seen by the only social worker of the Helsinki University Central Hospital multidisciplinary pain clinic between 1st September 1999 and 31st December 2000. This retrospective descriptive study quantified and classified the sociodemographic factors of the patients and the social work interventions received by the patients derived from the medical records and social work records of the patients and the hospital database. During the period of this study, 556 patients were referred to the pain clinic. Only the patients referred to the social worker were studied. These patients were selected by the doctors of the pain clinic. The main reasons to consult the social worker were the patient's problems in finding resources for daily living or rehabilitation.

Some of the variables used were multi-response variables, in which a variable could be expressed with multiple values. Medical records only contain information that is relevant to the treatment of the patient; due to this, some data was lost for this retrospective work. This is why all analyzed variables have an "unknown" class. The data has been arranged into bar charts based on frequency distribution, describing the incidence of various factors in the subjects.

**Table 1**

SOSU-classification, i.e. Sosiaalityön suoriteluokittelu [classification of social work's performance].

Classification	Object of charting or intervention
Charting the social situation	Family, work, livelihood housing
Basic social security services	Services promoting economic safety and thereby social coping
Services relating to social functioning	Non-institutional social and health services Services from the third sector (organizations)
Services relating to rehabilitation	Psychosocial support Counselling for rehabilitation, utilities and training for adaptation

### 2.2. Social work interventions

All services provided by the social worker were recorded in the social work database of the hospital. HUCH has developed a 'SOSU' classification (Sosiaalityön Suoriteluokittelu [classification of social work's performance], Table 1) for this purpose, and all social work tasks have been recorded in the patient database of the hospital using the classification since 1992. Issues addressed at the social worker's office of the pain clinic were coded in accordance with the 'SOSU' classification. The main classes were: charting the social situation, basic social security services, services related to social functioning, and services related to rehabilitation (Table 1). Moreover, visits to other social workers than the pain clinic's social worker were recorded.

### 2.3. Social profile and economic situation of patients

For the sociodemographic variable classification, we used the classification recommendations of Statistics Finland [11] when applicable, while the rest of the variable classes were established for the purposes of this study. The classification criteria for the social situation were gender, age, marital and family status, tenure (living alone, cohabitation, owner, renter, and homeless), level of education, employment status, socioeconomic status, source of income, debts, ability to pay for treatment, and self-reported problems with subsistence. Patients' medical records were searched for demographic factors, which were then coded using the classes above. If the patient was unemployed or retired, the classification of occupation was based on the latest employment.

### 2.4. Social benefits received by patients

The primary classification criteria for social welfare were the type of social benefits and the rejection of applications for compensation for the loss of earnings. We also investigated the rehabilitation assessments of the patients. Social benefits found in the medical records were recorded.

## 3. Results

### 3.1. Age distribution

During the study period, the social worker saw 55 patients, 29 of which were women and 26 men. This group of patients constituted a 9.9% share of all patients referred to the Meilahti pain clinic during that period. The age distribution (Fig. 1) is centered on the middle-aged population.

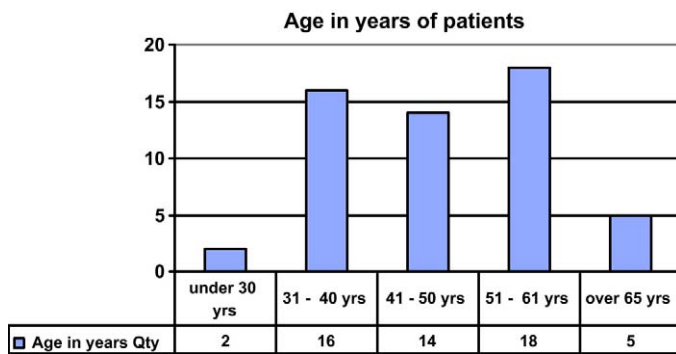


Fig. 1. Age distribution of patients referred to social worker (N = 55).

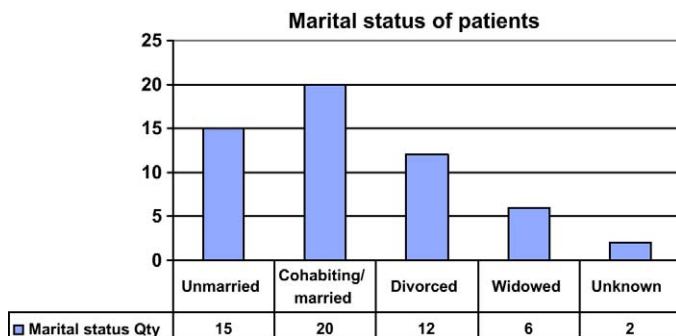


Fig. 2. Marital status of patients referred to social worker (N = 55).

### 3.2. Marital and family status

The marital and family status was known for nearly all of the patients. Roughly one third of the patients were married or cohabited (Fig. 2) and a bit less than half of the subjects lived with a spouse (or partner) without children or with a partner and children (Fig. 3). The 'other' group represented subtenants, homeless and those living with parents and/or siblings. Those living alone constituted the largest group. When the group of single parents living with children is included in the 'living alone' group, they comprise 24 patients.

### 3.3. Housing

Over half of the patients were in rented accommodation (Fig. 4). Three of the patients were subtenants; this class also included those living with their parents.

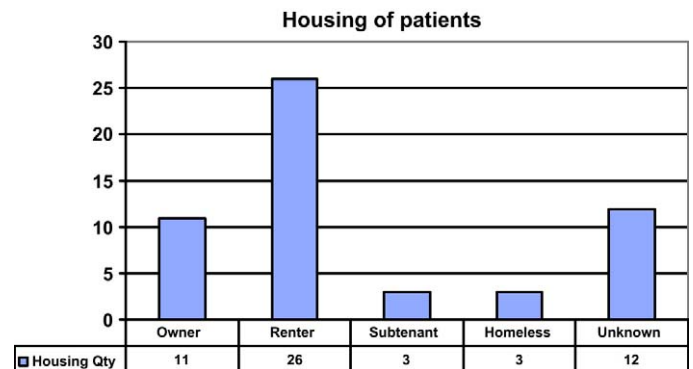


Fig. 4. Housing of patients referred to social worker (N = 55).

### 3.4. Education and occupation

Over half of the patients had completed the minimum level (primary or comprehensive school) of education (Fig. 5). Only 15% of the patients had passed the matriculation examination (equivalent of high school diploma).

A bit more than a fourth of the patients did not have any vocational education (Fig. 6). Those at the lowest levels of basic education, 53% (primary school) and 20% (comprehensive school) did not have a vocational education, respectively. Of the high school graduates, 27% had no vocational education.

The largest group of subjects worked or had worked in public or other services. The second largest group consisted of those working in stores, hotels and restaurants (Fig. 7). Over half of the subjects' occupation had been in the service industry. Since the subjects had scant vocational education, they had worked mainly in manual labor. The groups of manual workers and lower-level employees with administrative and clerical both numbered 22 (N = 22). The groups of self-employed and upper-level employees both numbered three (N = 3). The lower-level employees had no vocational education, or they had attended vocational course or school. The unemployment rate among the studied patients was 20%.

### 3.5. Economic situation

Financial problems were common among the subjects, and 37 patients had problems with making a living, signifying that a major number of the patients visited the social worker because of financial problems. Twenty-four of the patients were in debt and three were undergoing debt counseling. Of homeowners, 21% were in debt, while the portion of those living in rented accommodation was almost two thirds. Thirty-eight of the patients had problems paying for their treatment; these difficulties were associated with self-reported problems with making a living and thus also with

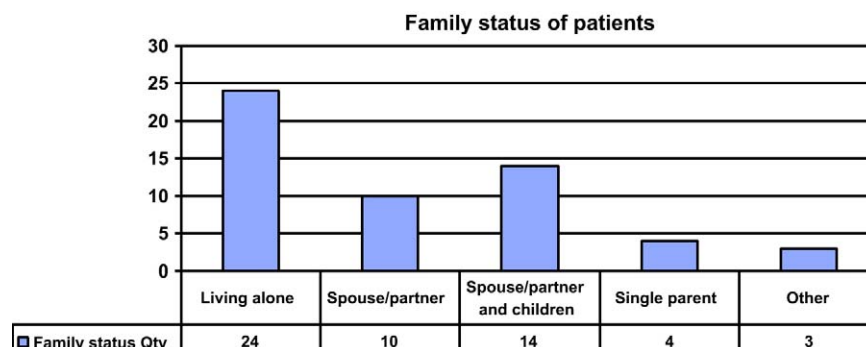


Fig. 3. Family status of patients referred to social worker (N = 55).

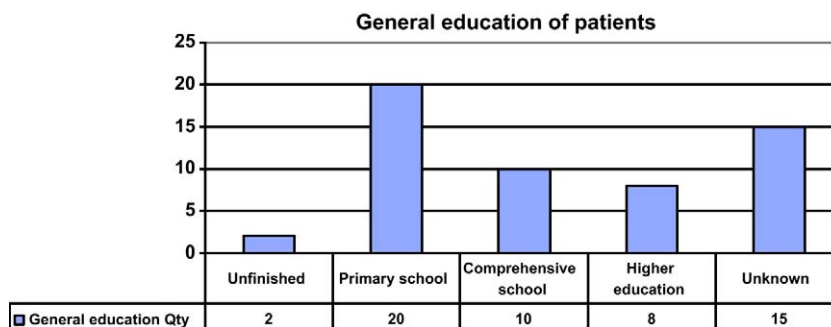


Fig. 5. General education of patients referred to social worker (N = 55).

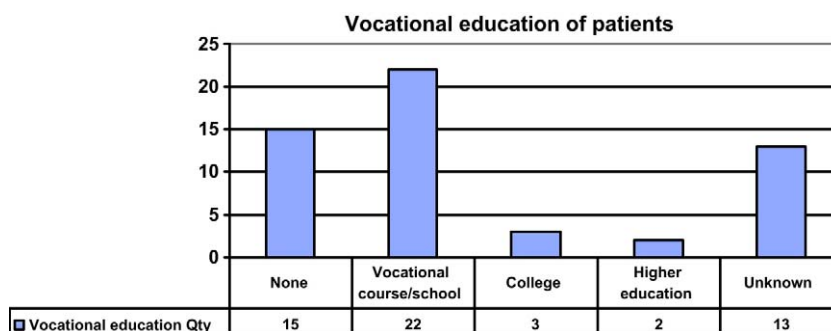


Fig. 6. Vocational education of patients referred to social worker (N = 55).

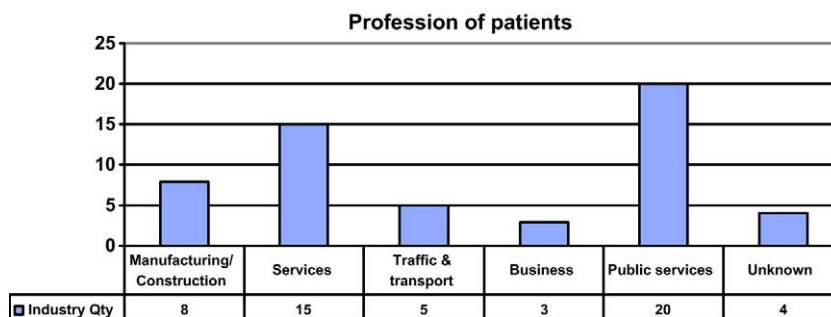


Fig. 7. Profession of patients referred to social worker (N = 55).

indebtedness. The most significant source of income among the subjects was social benefits. Twenty-five of the patients were living on transfer of income or on the income of another person and 23 were on disability pension. Only seven of the patients had earned income or entrepreneurial income.

### 3.6. Social benefits

All patients seen by the social worker received some form of public assistance (Table 2). Ten of the patients received unemployment benefit. In some cases, the attending physician had assessed an unemployed patient looking for a job as disabled, but the patient's sickness allowance or rehabilitation benefit applications had still been rejected. For half of the patients, some form of social benefit compensating the loss of income had been rejected, and in these cases the main source of income seemed to be transfer of income and the income of another person. Most of the rejections (57%) occurred among patients aged 41–50. Statutory social assistance was paid to 15 patients. Sixty-two percent of the patients were eligible for so-called means-tested subsidies,

in which the income limits are low. Such means-tested subsidies include labor market subsidy, social assistance and housing allowance, the amount of which is determined by the income of the applicant as well as the applicant's spouse or partner. Some of the subjects received more than one of the subsidies above.

Table 2

Social benefits received by the patients (N = 55).

Social benefits	N = 55	%
Sickness allowance	8	15
Rehabilitation subsidy	6	11
Disability pension	9	16
Earnings-related unemployment allowance	5	9
Basic unemployment allowance	7	13
Social assistance	19	35
House allowance	12	22
Disability allowance	2	4
Care allowance	8	15
Accident	7	13
Other	7	13
None		0

### 3.7. Rehabilitation assessment

The objectives of rehabilitation assessment are first, to assess the patient's ability to work and second, to draw up a rehabilitation plan. Fifty-six percent of the subjects had participated in rehabilitation assessment (18 in the HUCH rehabilitation assessment unit and 13 in some other facility). A few patients had attended rehabilitation assessment several times. Of those who received a rejection concerning the compensation for loss of income, half had attended rehabilitation assessment in the HUCH rehabilitation assessment unit and 27% in some other facility. Rehabilitation assessment concerning general education concentrated on the least educated. The patients who attended rehabilitation assessment were also heavily in debt.

### 3.8. Amount and content of social work

The social worker saw 39 patients once, one patient twice and 15 patients three or more times. The duration of a visit was typically 1–2 h. The issues of a patient are addressed by contacting authorities and negotiating with other health care staff. According to the 'SOSU' classification data, the social situation was charted for 49 patients, while the benefits and assistance provided by the Social Insurance Institution of Finland were discussed with 25 patients. The social worker discussed employment based pension with 18 of the patients, which involved informing the patient about the application procedure and considering alternative measures if an application had been rejected. Social assistance, the last-resort economic assistance under social welfare, was considered with 11 patients, while traffic, accident and patient insurances were discussed with 12 patients. Of services provided by municipalities, disability services ( $N=5$ ) and home care ( $N=5$ ) were the most frequently discussed. Rehabilitation was considered with 26 patients, mainly concerning rehabilitation assessment and vocational rehabilitation. Medical rehabilitation was also discussed, focusing on pain rehabilitation and institutional rehabilitation. Psychosocial work was recorded for 19 patients, comprising longer-term, supportive discussion.

## 4. Discussion and conclusions

The main contribution of this work is to identify the issues the social worker of a pain clinic should be prepared to face, and what kinds of interventions the social worker should be able to carry out. The social workers of a hospital only see a small proportion of all patients: about 10% of the referred patients of the pain clinic in this study. Patients and their family may directly contact the social worker, but most are staff-referrals. Most (about 90% of the selected group of patients seen by the social worker) pain clinic patients who see the social worker seemed to be working age people. In other words, social work at the pain clinic is targeted at the active population segment. A majority (almost two thirds) of subjects were seen only once. In many cases this was enough, but some might have benefited from a more psychosocial approach [5,12]. Whether a more psychosocial therapeutic approach in social work would benefit the patients of the pain clinic remains to be evaluated in later work. A therapeutic approach in pain treatment usually refers to a psychosocial assessment, developing coping skills, family therapy, or group or individual cognitive-behavioral therapy [5]. About a third of the subjects in this study were provided with this kind of therapeutic, supportive discussion.

However, patients primarily needed a social worker to provide help with taking care of social welfare issues, because the Finnish social security system is relatively complicated. A low education level and exhaustion related to pain conditions may also pose prob-

lems for a patient in using the social security system. The social worker can easily meet this advisory capacity. Thus, the role that often falls on the social worker of the pain clinic is that of a consultant. The social worker evaluates the social situation of a patient and then gives advice on further measures addressing the patient's social environment and helps the patient to run everyday life [5]. This view is supported by the research into the SOSU-classified causes for visiting a social worker.

The evaluation of the social situation of a patient was almost a routine part of a social worker's duties (assessed in almost 90% of the subjects), which has also been stipulated in literature [5]. The social worker used several sources in gathering the information relevant to this evaluation: the sources included other staff of the pain clinic, outside health care providers treating the patient, as well as other authorities influencing the social context of the patient. If the role of an advisor is considered as the most appropriate model in a multidisciplinary pain clinic, this presupposes that the social worker has the qualifications for making an evaluation of the social situation, communicating with authorities and understanding the underlying questions of social problems.

Forty-five percent of the patients visiting the social worker of the pain clinic were in need of advice concerning the application for, and arrangement of, benefits from the Social Insurance Institution of Finland, while one third needed information on the application for an employment-based pension. Almost half of the patients needed guidance in rehabilitation-related issues. Social assistance, the last resort of the Finnish social security system for people in financial hardship, had to be discussed with one fifth of the patients. Social assistance is the statutory benefit that ensures at least a minimal living needed for a life of human dignity, payable to those who are otherwise unable to make a living. Of the Finnish general population, 8.8% [13] received this benefit at the time of this study. Considering the figures above, a social worker in a pain clinic has to be well aware of social security protocol for those of working age and capable of work. Also, the social worker has to be familiar with social work that aims towards rehabilitation and returning to work, and with social work legislation. Moreover, a social worker of a pain clinic must have a good knowledge of citizens' minimum social security benefits. According to the SOSU classification, a majority of the social work interventions relate to guiding the patient to various benefits in order to ensure a patient's standard of living.

Although social work and its significance to financial administration naturally vary in different societies depending on social welfare legislation, we found it surprising how little the practical content of social work has been studied. We were able to find only one similar, albeit narrower, study that investigated the content of social work in a psychiatric hospital in the United States [12]. The findings of that study indicated that the emphasis of social work was on arranging after-treatment care and home care (52% of the patients), and on the assessing of the need for psychiatric treatment (30% of the patients). The psychiatric care community and its requirements for the social worker were very different from the requirements posed by a pain clinic setting. In this respect, it is astonishing that researchers have not been more interested in the decisions that a social worker makes in a pain clinic, affecting a patient's treatment. This is even more surprising considering that the recommendations given by a social worker may have a much greater influence than any medical decisions on the costs incurred to the society and insurance companies (=payers) from the case handling of a young pain patient, for instance. In this sense, social work has a substantial impact on the total cost structure of pain treatment [3]. Research into the extent of the financial aspect is likely to be one of the main topics in our future work concerning the activities of a social worker in a pain clinic.

Of the subjects, almost 40% lived alone and 8% were single parents with children under 18 years. However, two thirds of our



subjects were younger than 50 years, which is usually a time of active family life. The type of housing and the presence of family are closely interdependent, and the social support provided by family is known to significantly impact on the pain behavior of patients by reducing pain behavior. In a previous study supportive family was reported to be an important factor in enhancing rehabilitation of chronic pain patients [14]. However, some work suggests that contentment with social support may in fact increase pain behaviour with the intent of acquiring secondary benefits [15]. Chronic pain may also worsen the self-reported health of the patient's spouse, depress the spouse and make living together more difficult [16]. Thus, problems caused by chronic pain may manifest themselves as the deterioration of the patients' relationships and housing conditions. One possible explanation for the large proportion of single households in our sample is that pain may have prevented the patients from forming a relationship or contributed to the dissolution of the relationship. Qualitative research is needed to verify this line of thought and identify the cause and effect, if such exists.

The educational level of patients seen by the social worker was relatively low. They had little vocational education and, at least partially due to this, their socio-economic status was also low. This observation is in line with the overall situation in Finland: a Finnish analysis of living conditions in 1994 showed that employed men and women are significantly healthier than the unemployed [17]. The healthiest segment was the lower- and upper-level non-manual work employees, while manual workers and farmers were the least healthy [17]. The less education a Finn has, the worse is his health [18]. The low educational level and socio-economic status of our subjects may have contributed to the chronicity of their pain, since these have been reported to correlate [16]. One explanation for this is that the underprivileged and the less educated have weaker coping mechanisms in a situation changed by pain [3,19].

Almost half of the patients in this sample were in debt. This finding was unexpected considering that almost two thirds of the patients lived in rented apartments, possibly indicating that the debts mainly consisted of consumer credit. Taking out a loan is not significant as such, but if the majority of the debts are truly consumer credits, then its incidence is clearly higher than in the average population, in which the incidence is 30% [20]. It seems that patients with pain may have had to take a loan for everyday living, which may also be a sign of weakened control of their own life. In relation to the unfavorable financial situation, more than two thirds of the patients had difficulties paying for their treatment. The low financial status of the patients was also signaled by the fact that around 60% of them were granted means-tested benefits described above (labor market allowance, social assistance and housing allowance), in which the income limits are low, and one fourth of the subjects received the statutory social assistance. In practice, the impoverished patients had to cancel their outpatient clinic appointments, and they did not buy medication prescribed to them. For example, the most recent medications for neuropathic pain (e.g. gabapentinoids and SNRIs) are expensive and only partially reimbursed. For some patients even fees for visits to the pain clinic may be too expensive (currently 25 euros of an outpatient visit). These factors may naturally diminish the treatment results in this patient group. Significantly, visits to a social worker are free.

Almost half of the patients referred to the social worker of the pain clinic had experienced a rejection of their application concerning a social benefit compensating a loss of earnings. An explanation for a rate this high may be due to the fact that particularly patients in a poor financial situation are referred to the social worker of the pain clinic, and a rejection may cause the economy of a patient to collapse. This may lead to the patient rotating in the health care system in attempting to legitimize their incapacity and seeking financial compensation relating to their incapacity for work. Mean-

while, repeated tests and medical opinions consume health care resources and may frustrate health care staff.

The selected sample in our study comprises many kinds of social and economic difficulties. The patients seem marginalized, socially excluded or deprived of the normal living standards of society. Marginalization presupposes problems in at least three factors of living conditions; health, financial resources, housing conditions, human relationships, leisure activities, political resources, working conditions, and the security of life and possessions [21]. The patients in our sample were marginalized in several living condition factors. All of them had poor health. Many had scarce financial resources, poor housing conditions and trouble with human relationships, and several had had to give up employment.

There are limitations in interpretation of the results of this study. First, the data of this study were not primarily intended for research but rather secondary data that were originally collected for clinical work. Therefore, several very important and interesting questions, such as, why just these patients were referred to a social worker, how they differed from other pain clinic patients, or how many patients in the clinic who were not referred to a social worker might have benefited from social work, could not be answered. Furthermore, present data reflect the situation of only one multidisciplinary university pain clinic ([22], the only in Finland at the time) and consist therefore of a relatively small number of subjects. Therefore, the present study cannot describe putative variation in the practise of social work. Neither does this study describe outcomes or putative success of the social work, either.

Yet, despite these limitations, the current study investigating the work content of a social worker in a pain clinic is the first. It is partly a pilot study that systematically explores the input of a social worker in a pain clinic. It describes what kinds of social problems a social worker has to face in a pain clinic. Although differences in social welfare legislation between countries limit the extrapolation of the results, our work identifies typical social and welfare problems of chronic pain patients. The problems of the patients in our sample turned out to be diverse. As a rule of thumb, all the health care staff of a multidisciplinary pain clinic should remember to refer patients with chronic pain to social work intervention as early as possible. Since pain clinic staff refers mainly patients with financial problems to the social worker, the present study shows that ensuring the living standards of these patients seems to be the essential task of a social worker. This duty is important, since adequate financial resources are crucial for the success of treatment and rehabilitation. Additionally, the patients need case management type of guidance and advice due to the fact that the Finnish social welfare system and the social and health services system are complex. Social work also has an important role in the planning and implementation of vocational rehabilitation. Hopefully, this work equips a novice social worker to prepare for the challenges of the social work in pain clinic.

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