



Editorial comment

Measuring outcomes of pain management

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In this issue of the *Scandinavian Journal of Pain* Paul Peloso, Andrew Moore and their co-workers evaluated whether osteoarthritis patients achieving the greatest pain control and lowest pain states also have the greatest improvement in functioning and quality of life [1].

1. Assessment of outcomes of management of chronic pain

Pain is a complex and subjective experience that poses a number of measurement challenges [2,3]. The aim of treatment is to improve outcomes. Outcomes measurement refers to the systematic collection and analysis of information that is used to evaluate the efficacy of an intervention. How can we track the changes? Ideally, we would like to have an objective, physiologic marker of pain [4]. And indeed, several physiologic variables have been evaluated for this purpose, like skin conductance, heart rate, and pupillary reactions. However, these markers do not correlated strongly enough with patients' experience of suffering to warrant their use as surrogate markers [2].

Work continues in this area, but in the meantime, we have to rely on a number of accepted tools for tracking pain-related treatment outcomes. Chronic pain assessment and its impact on physical, emotional, and social functions require multidimensional qualitative tools and health-related quality of life instruments. These instruments range from quick, one-item assessments of pain intensity, to long surveys that tap into multiple dimensions of the pain experience and overall functioning [2]. In daily practice, a simple outcome measure, as advocated by Andrew Moore and co-workers ("no worse than mild pain") [5] is very useful.

2. Instruments for tracking qualitative aspects of pain treatment outcomes

Despite the difficulty inherent to measuring pain, there are a number of accepted tools for tracking pain-related treatment

outcomes. In the article by Paul Peloso and Andrew Moore and their coworkers [1], a number of instruments were used in order to assess qualitative aspects of chronic pain and its impact on function. The *Western Ontario and McMaster Universities Arthritis Index* (WOMAC) was developed specifically for Hip and Knee Osteoarthritis; The *Brief Pain Inventory* (BPI), was originally developed for cancer pain, but now used widely in other pain conditions; The *Short Form Health Survey* (SF-36) measures health status, including physical and mental components. These are relevant tools for the study population in question [1].

It is certainly an advantage to use an instrument developed for the disease to be studied. But we should also remember that disease-specific measures of physical functioning have not been developed and validated for many chronic pain conditions. However, one must always take into account the limitations of results based on self-report measures to determine the impact of pain [6]. Memory of pain is not accurate and often coloured by changing context factors. This is true even for a short time period of 24 h as required for parts of the WOMAC-survey [7].

3. The more pain is relieved, the more quality of life improves [1]

The authors point out that evidence from different painful conditions demonstrates that well-controlled pain has benefits on quality of life, functional, and associated economic benefits [1]. At first glance this looks rather obvious. To put it rudely: Is it better to be healthy, rich and beautiful compared to being sick, poor and ugly; meaning: We already know that Quality of Life (QoL) is related to pain, health in general, and a number of social factors.

Although there are commonalities across different pain states, there are also differences. In a group of chronic pain patients entering pain therapy at an outpatient clinic, Sator-Katzenschlager and co-workers reported that reducing pain intensity improves behaviour and cognitive dimensions but not psychological well-being and cognitive assessment [8]. As pointed out by the authors [1], there are a number of studies of pain conditions other than osteoarthritis that have concluded that improvements in pain were correlated with improvement in at least one other important aspect of QoL or functional improvement. It is not surprising that this holds true also for osteoarthritis patients [1].

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However, there are some interesting data in the article by Paul Peloso and Andrew Moore and their co-workers that add information to the existing literature regarding pain and function [1]. The patients with the greatest improvement in osteoarthritis pain also have the greatest improvements in QoL and function. While clinicians may believe this relationship to be true, this has not previously been documented in osteoarthritis.

4. Gender, age, cultural background and more factors influence outcome of pain management

Exploration of commonalities and variations in health related function across pain groups is important. Also in osteoarthritis pain patients there are a number of factors that need to be identified. Data explored in this study were taken from a single trial in a single country [1]. The authors identify several limitations in their report. In order to extrapolate results into larger patient groups, more questions should be explored, controlling for sociodemographic characteristics.

Are there gender differences? Gender differences have been identified in other patient groups regarding pain treatment response. Pain can be a sex-specific determinant of satisfaction with QoL. In a study of poststroke pain, Bergés and coworkers demonstrated that in this group of patients, as level of pain increased, men's satisfaction with QoL decreased more than women's QoL [9].

Are there age-difference? Rustøen et al. demonstrated the pain prevalence and pain experience do indeed vary with age [10].

Are there cultural differences? Practice of modern medicine as well as measuring outcomes should be assisted by an exploration of the possibility of cultural differences in medical beliefs and practices in the multiethnic and racially diverse patient populations [11].

Furthermore, pain response over time is important: Unlike acute pain, chronic pain unfolds over time. The pain experience will ultimately influence most factors of QoL, whether recovery or improvement is possible. Monitoring the temporal aspects in a wider time-frame is a challenge [12].

5. Treat the person, not only the pain

The goal of pain management is to improve not only physical conditions, but also pain behaviour, social, and psychological aspects of the patient's life. We need to utilize all available means of understanding pain's complexity, and treat the person and not simply the pain. It is good to know that good improvements in osteoarthritis pain are a proxy for both function and QoL.

Conflict of interest

None declared.

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