Nurses' perception of the management of chronic non-malignant pain with opioids*

Percepção dos enfermeiros sobre o tratamento da dor crônica não maligna com opioides

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ABSTRACT

BACKGROUND AND OBJECTIVES: Very often, chronic pain is undermanaged in patients with chronic non-malignant pain due to its complexity, and the long term success of the treatment is difficult. This study aimed at understanding nurses' perception about administering opioids to relieve chronic non-malignant pain (CNMP).

METHOD: After the Ethics Committee approval, participated in this study clinical nurses with experience in managing chronic pain patients, who answered a questionnaire about using opioids for CNMP.

RESULTS: Participated in this study 60 nurses, of whom 56.7% identified patients' pain by their complaints, 40% reported that dipirone was the drug used to treat CNMP, 50% reported that massage was the non-pharmacological therapy to treat CNMP, most have mentioned morphine and tramadol as the most widely used opioids to relieve chronic non-cancer pain, 50% stated that they evaluate pain intensity and administer prescribed opioids if needed when the pain is moderate or severe, 60% of nurses believe that opioids interfere with patients' rehabilitation, most have mentioned addiction (65%) and respiratory depression (46.7%) as the best known side-effects and 61.7% have stated that they have no restriction for the use of opioids to treat CNMP.

CONCLUSION: Most nurses have no restriction for the administration of opioids for CNMP patients.

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RESUMO

JUSTIFICATIVA E OBJETIVOS: A dor crônica, muitas vezes, é subtratada em pacientes com dor crônica não maligna pela sua complexidade, e o sucesso do tratamento em longo prazo é difícil de ser obtido. Este estudo teve como objetivo conhecer a percepção de enfermeiros sobre a administração de opioides para alívio da dor crônica não maligna (DCNM).

MÉTODO: Após aprovação pelo Comitê de Ética foram incluídos enfermeiros clínicos com experiência em cuidar de pacientes com dor crônica, que responderam um formulário sobre o uso de opioides em DCNM.

RESULTADOS: Foram incluídos 60 enfermeiros, sendo que 56,7% identificaram a dor do paciente pelas queixas, 40% informaram que a dipirona era a terapêutica farmacológica usada para tratar a DCNM, 50% informaram que a massagem era a terapêutica não farmacológica usada para tratar a DCNM, a maioria citou a morfina e o tramadol como os opioides mais usados para alivio da dor crônica não oncológica, 50% afirmaram que avaliam a intensidade da dor e administram o opioide prescrito se necessário se a dor for moderada ou intensa, 60% dos enfermeiros acreditam que o opioide interfere com a reabilitação do paciente, a maioria citou a dependência (65%) e a depressão respiratória (46,7%) como os efeitos adversos mais conhecidos e 61,7% afirmaram não ter restrição ao uso do opioide no tratamento da DCNM.

CONCLUSÃO: A maioria dos enfermeiros não tem nenhuma restrição na administração de opioides para pacientes com DCNM.

Descritores: Analgésicos opioides, Dor crônica, Efeitos de fármacos, Enfermeiros, Medo.

INTRODUCTION

Chronic pain is very often undertreated in patients with chronic non-malignant pain (CNMP). For being a complex disease, the success of long-term treatment is difficult[1].

Considering the subjectivity and complexity of the pain phenomenon, its evaluation and control may pose a major challenge to health professionals. In general, CNMP is controlled with non-opioid analgesics and non pharmacological techniques, however opioids

are critical to control more severe CNMP, which may occasionally affect patients[2,3].

Poor knowledge and health professionals' concerns with opioids, added to administrative issues imposed by institutions, such as filling prescriptions for controlled use drugs, make hospital pharmacies unable to supply opioids, impairing adequate pain management[2,4].

Even with current information, with pain measurement scales, with the varied therapeutic armamentarium, with the algorithm proposed by the World Health Organization (WHO) to treat pain, very often pain is not effectively controlled due to prejudice and misinformation of health professionals. Also inadequate or insufficient medical prescription is major barriers to control pain[2,3].

Nurses are team members who evaluate, coordinate and assist patients and so they should be qualified and able to deal with a demanding, and sometimes hostile group of patients[1].

Obstacles faced by the nursing team are the imprecise evaluation and adequate pain management by judging patients' pain perception based on experiences lived by the professional. Also, for more severe pain, the major factor is still the presence of prejudices and fears with regard to opioids, leading to the so-called opiophobia[2-4].

This study is justified by the need to understand nurses perception with regard to the use of opioids in CNMP patients to, as from this understanding, propose solutions aiming at solving possible problems related to the administration of opioids and at improving patients' assistance, minimizing their distress.

This study aimed at checking nurses' perception of analgesic therapy with opioids for CNMP patients.

METHOD

Direct field research, applied as interviews. Studied sample was random and made up of 60 nurses. Inclusion criteria were being clinical nurses experienced in treating CNMP patients and who would agree to participate in the research by signing the Free and Informed Consent Term (FICT).

Data were collected with a structured form with 8 questions related to the subject (CNMP) and to the use of opioids, in addition to knowledge about pain evaluation, opioid side effects, beliefs, fears and prejudice with its use. Results are shown in absolute numbers or percentages.

This study was approved by the Ethics Committee for Research Projects Analysis – CAPPesq, Clinicas Hospital, School of Medicine, University of São Paulo (protocol 0238/2011).

RESULTS

Participated in this study 48 female and 12 male nurses, aged from 23 to 57years (mean of 34.1 ± 9.5 years), being that 75% of them had assistance activity only, 20% were only professors and 5% were professors and had assistance activity. Time in the profession has varied from 1 to 26 years (mean of 9.5 ± 7 years), with higher prevalence of nurses with up to five years of profession.

When asked how would the identify patients' pain, 56.7% said that they identified by complaints, 30% by facial expression, 10% by agitation level and 3.3% by patients' discomfort level, being that 96.6% used the numerical scale to evaluate pain intensity and 3.4% evaluated pain intensity by the visual analog scale (VAS).

When asked about drug therapy to treat CNMP in their institutions, 40% stated that they used dipirone, 25% tramadol, 25% paracetamol, 20% butylscopolamine and 5% non-steroid anti-inflammatory drugs (NSAIDs).

When asked about the non pharmacological therapy used to treat CNMP in their institutions, 50% stated using massage, 41.7% warm or cold physical therapy, 10% psychotherapy, 10% change in position and 5% acupuncture.

When asked about which opioid to relieve chronic non-cancer pain they knew about, most have mentioned morphine and tramadol, but a significant number of nurses (26.7%) has mentioned pethidine (Table 1).

Table 1 – Opioids used to relieve chronic non cancer pain and known by nurses (São Paulo, 2011).

	n	%
Morphine	31	51.7
Tramadol	24	40.0
Pethidine	16	26.7
Codeine	13	21.7
Fentanyl	12	20.0
Oxycodone	11	18.3
Methadone	6	10.0

When asked about their approach faced to the prescription of opioids if necessary, 50% have stated that they evaluate pain intensity and administer it if pain is moderate or severe, 15% only as the last resource, 15% only after discussing with the physician and 20% do not administer.

With regard to the importance of opioids for patients' rehabilitation, 60% of nurses believe that opioids interfere with patients' rehabilitation and 40% that they don´t.

With regard to opioids adverse effects, most have mentioned addiction (65%), respiratory depression (46.7%), followed by constipation, pruritus, sleepiness and nausea/vomiting (41.7%) and only 3.3% have mentioned respiratory arrest (Table 2).

Table 2 – Adverse effects of opioids mentioned by nurses (São Paulo, 2011).

	n	%
Addiction	39	65.0
Respiratory depression	28	46.7
Constipation	25	41.7
Pruritus	25	41.7
Sleepiness	25	41.7
Nausea/vomiting	25	41.7
Dry mouth	6	10.0
Mental confusion	6	10.0
Delirium	6	10.0
Sweating	6	10.0
Urinary retention	3	5.0
Euphoria	3	5.0
Liver toxicity	3	5.0
Spinal cord injury	3	5.0
Paralytic ileus	2	3.3
Cardio-respiratory arrest	2	3.3

When asked whether they had restriction to the use of opioids to treat CNMP, 61.7% of nurses stated having no restriction, but 38.3% stated having restriction.

DISCUSSION

Adequate chronic pain management improves quality of life (QL). Knowledge, skills, drugs, non pharmacological and technical interventions are available to manage almost any kind of pain, and pain relief is responsibility of all health professionals because patients deserve the best efforts to improve their comfort and treatment[5].

Although pain is one of the more common reasons for looking for health care, it is not well understood and is still one of the major current health problems. Pain experience is dynamic, and nurses must understand this fact and cooperate with other health team members and with patients to be able to control pain, because they are also responsible for managing its treatment[6], which has been well established by this study since most (60%) nurses believe that opioids interfere with patients' rehabilitation.

The minority of nurses (38.3%) has stated having restrictions for the use of opioids to treat CNMP, in line with literature data which although evidencing that opioids are universally used to treat pain, confirm that many health professionals still resist to such analgesics, especially be fear of complications, lack of knowledge of some pharmacological aspects such as tolerance, physical and psychological dependence, and that opioids to treat chronic benign pain are subject of several debates and controversies, although there is a number of patients who may benefit from the use of these drugs, but parameters for their use are still brittle[7-9].

Cultural attitudes and abuse concerns have inhibited the use of opioids for CNMP patients. WHO's analgesic ladder may be easily applied for all kinds of pain. Opioids are pillars for the treatment of moderate to severe pain. Unique pharmacological features of opioids are important to treat CNMP and problems related to pain control and opioid abuse may be monitored with a protocol to manage patients' health status[10].

It is worth stressing that chronic pain patients pose some difficult challenges for primary health care professionals. Physicians in general avoid, or event reject the use of opioids for chronic non cancer pain due to fear of tolerance, severe and persistent adverse effects and impairment of physical and psycho-social function, prescribing them only as the last resource, even due to current legal aspects of the country and the difficulties they impose to prescribe such drugs[11], coinciding with the same fear of nurses, who have mentioned concerns with adverse effects.

Most participants of this study have mentioned morphine and tramadol as opioids they knew to treat chronic non cancer pain, but codeine was also mentioned by 21.7% (Table 1). The literature shows that, in spite of controversies, the so-called weak opioids tramadol and codeine have been often used to control pain. The choice of such drugs is due to the belief that they cause less dependence than the so-called strong opioids and also because their prescription does not require special forms[9,12].

A large number of chronic non cancer pain patients do not have adequate pain control with conventional analgesic schemes. Opioids may be used for some painful syndromes, being methadone a major option[9].

Only 10% of nurses have mentioned methadone to treat chronic non cancer pain. This perception is in line with the specialized literature, since chronic pain patients' treatment with methadone is limited due to misunderstandings about addiction, safety and its original pharmacokinetic and pharmacodynamic properties.

However, CNMP patients are often treated with methadone as first choice opioid for specific pain conditions, or as second line opioids for patients developing tolerance or untreatable with other opioids due to their side effects[13].

Opioids may be used for some painful syndromes, being methadone a major option. Methadone has a good cost/benefit ratio because it has the same efficacy of other opioids with lower cost and morbidity. Methadone is an effective alternative and may improve pain control in some patients refractory to other opioids, such as morphine, especially those with neuropathic pain. Opioids to treat chronic non cancer pain are still a controversial subject and decisions imply risks which should be anticipated and adequately controlled[9].

A fact to be stressed is that a relevant number of nurses (26.7%) have mentioned pethidine to treat CNMP (Table 1). This positioning is inconsistent with the specialized literature which recommends decreasing pethidine prescription[14], because it is well known for many years that this opioid does not have any advantage with regard to comparable doses of other analgesics, because its analgesic effect is not pronounced and it has severe side effects, including serotoninergic toxicity and the formation, by hepatic demethylation, of the active metabolite norpethidine, the half-life of which is much longer than pethidine's, and which build up leads to central nervous system excitation, with symptoms varying from dysphoria, delirium, more severe psychomotor agitation, up to seizures, being pethidine contraindicated to treat chronic pain of any origin, because it increases norpethidine production and, as a consequence, its adverse effects[15].

The spectrum of chronic non cancer pain treated with opioids is broad and a significant minority shows prescribed opioids abuse, however the history of psychoactive drugs use and lower age is associated to opioid abuse[16].

A study collecting data with a questionnaire describing nurses perception and measuring their knowledge about assisting painful patients, has observed that 52.0% had no experience with chronic pain, 42.4% have stated that they often treated painful patients, 70.2% were educated about pain in school, 88.4% had no education outside the school and had not read about pain in journals, 88.9% administered drugs for pain relief, 85.4% of patients were relieved based on verbal statements, 96.5% knew important aspects of pain pathophysiology. Authors have concluded that nurses had insufficient knowledge about assisting painful patients and about methods to control pain[6], which was not confirmed by our study, because nurses have shown good knowledge of pain identification and evaluation, but have shown lack of knowledge about pethidine contraindication for chronic pain.

A study carried out with nurses of a Belgian teaching hospital related to pain treatment with opioids has shown that although professionals believed that opioids are positive to control pain, they had clearly negative attitudes with regard to their use, which could prevent adequate pain management, due to concerns with possible

addiction risks[17], fact that was not confirmed by our study, because most nurses (61.7%) have stated having no restriction to the use of opioids to treat CNMP.

Most nurses of our study (65%) have mentioned addiction as the best known adverse effect, which may negatively influence the treatment of chronic pain, because chronic non cancer pain is associated to high levels of distress and psycho-social impairment and patients appreciate the benefits of strong opioids, in spite of the fear of addiction but considering coping strategies of evidence-based guidelines in the literature[18].

Pain is still inadequately managed due to the lack of knowledge about pain pathophysiology and treatment and due to the belief that patients overestimate pain intensity because they are illegal opioid consumers, and also due to legal barriers to its use[19].

Participants of this study have shown lack of knowledge of some aspects which may reflect on pain management. A study has shown that nursing knowledge about opioids is clearly associated to differences observed in patients' pain intensity estimates, because professionals with poor knowledge tend to underestimate severe pain experiences[20].

Most nurses included in our study (56.7%) have reported they identified pain by complaints, 30% by patients' facial expressions and 96.6% used the numerical scale to evaluate pain intensity, differently from a study evaluating pharmacists, physicians and nurses which has shown that half the interviewed nurses were not familiar with scales to measure pain, being obvious that when a professional evaluates pain intensity, analgesic scales are critical tools[3].

Providing sustained analgesia is a major therapy aspect, and drugs should be timely administered because administration in regular doses maintains a constant drug level and helps preventing pain recurrence[21].

In a study where morphine prescription "if needed" was identified, nurses needed physicians' confirmation to administer the drug, showing nurses insecurity and fear[3]. A different study also addressing this issue has stated that very often nurses interpret the "if needed" prescription to administer the less possible opioids[2].

Another study has identified that hospital nursing team has shown less reluctance to use opioids than nurses not working regularly in hospitals[22], which may be confirmed by our study since most nurses included had predominantly hospital activities and have stated having no restriction to opioids to treat CNMP.

With regard to opioids adverse effects known by nurses, most have mentioned addiction (65.0%), respiratory depression (46.7%), followed by constipation, pruritus, sleepiness, nausea and vomiting (41.7%) and just 3% have mentioned respiratory arrest (Table 2), evidencing that nurses have good knowledge about opioids adverse effects because as a study states[23], it is important that nurses know about opioids adverse effects, since their inadequate handling may bring additional problems affecting patients' QL.

Education in the use of opioids and pain management is a need recognized by the literature; however there is still a lot to be done to correct fears and misconceptions which prevent adequate opioid analgesia[24].

New education strategies are needed to improve pain management in the daily practice, since the subject is in general neglected by health professionals qualification curricula[3,25].

There is the need for nurses to be familiar with the subject, regardless of having shown knowledge of some aspects, because many of them do not know all aspects related to the use of opioids in chronic non cancer pain patients. This fact was also highlighted by a different study which has equally detected some subjective aspects related to the use of opioids, such as fear and prejudice, which may contribute to the underutilization of such drugs[3].

Adequate chronic pain management improves function, result and QL. Knowledge, skills drugs, non pharmacological and technical interventions are available to manage almost any kind of pain. Pain relief is a responsibility of all health professionals and patients deserve the best efforts of such professionals to optimize their comfort and treatment[5], however, most nurses of our sample (40%) have reported that drug therapy to treat CNMP in their institutions was dipirone, tramadol (25%), paracetamol (25%), butylscopolamine (20%) and NSAIDs (5%), not very potent drugs indicated for mild or moderate pain.

As to non pharmacological therapy to treat CNMP in their institutions, 50% of nurses have reported using massage, 41.7% warm or cold physical therapy, 10% psychotherapy, 10% change in position and 5% acupuncture. These data show that although the drug therapy used to treat CNMP in their institutions was restricted to dipirone, tramadol, paracetamol , butylscopolamine and NSAIDs, nurses evaluated pain intensity using adequate scales and applied non pharmacological techniques described in the literature to provide comfort to their patients, as recommended by the authors of a study[5], who indicate that pain evaluation and revaluation, follow up, drug titration for individual responses, care with side effects, pain prevention and routine evaluation of the efficacy of the treatment plan are basic skills for all health professionals.

Although there is a clear perception of nurses evaluated by our study of the importance of opioids to treat CNMP, there is the need to broaden nurses' knowledge about the use of opioids so that prejudice, fear, wrong beliefs and other limiting factors for its use are eliminated.

CONCLUSION

Nurses included in this study have shown good knowledge, identification, pain intensity evaluation and of opioids used to relieve chronic non cancer pain, however they have included pethidine, which is contraindicated to treat pain, especially chronic pain. They have also shown a good knowledge of opioids adverse effects and had no restriction to their use to treat CNMP.

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