

District nurses' documentation of patients with chronic pain conditions before and after the introduction of 'pain advisers'

Lena Törnkvist Department of Clinical Sciences, Family Medicine Stockholm, Karolinska Institutet, **Ann Gardulf** Nursing Care Research and Development Unit, Huddinge University Hospital and Department of Nursing, Karolinska Institutet, Stockholm, Sweden and **Lars-Erik Strender** Department of Clinical Sciences, Family Medicine Stockholm, Karolinska Institutet

The aim of the present study was to review the district nurses' documentation of patients suffering from chronic pain conditions and to investigate whether the documentation changed after the introduction of specifically educated, district nurses ('pain advisers') at the primary health care centres (PHCC). A study area with five PHCCs and a control area with seven PHCCs were selected. One 'pain adviser' was introduced at each PHCC in the study area. The district nurses in the study area and the control area were asked to register all the patients older than 16 years with chronic pain conditions with whom they were in contact. The records of all the registered patients were collected in two periods (before and after the introduction of the pain advisers) and a review of different aspects of the nursing documentation related to chronic pain was performed. The nurses' documentation regarding the patients' chronic pain conditions was found to be incomplete and minimal. After the introduction of 'pain advisers' into the study area, some improvements were found in both areas. Our results indicate that the introduction of 'pain advisers' to some extent improved the documentation in the study area, but that further interventions are needed in order to improve it further.

Key words: chronic pain; district nurse; nursing documentation; pain advisers; primary health care

Introduction

Chronic pain conditions are a common problem in the general population (Crook *et al.*, 1984; Brattberg *et al.*, 1989; National Board of Health and Welfare, 1995), especially among older people (Bowling and Browne, 1991; Mobility *et al.*, 1994; Ross and Crook, 1998). Independently of the diagnosis or the cause of the pain, pain management includes accurate pain assessment and nursing documentation in the patients' records (Ferrel *et al.*, 1991; Janman, 1993; Latham, 1993). In Sweden, the primary health

care system has the basic responsibility for patients with pain conditions (National Board of Health and Welfare, 1995).

The district nurses are obliged by law to enter essential information about the patient and their care in the patient's record (Swedish Statute Book, 1985). This is important for several reasons: to create the prerequisites for giving good and safe care (National Board of Health and Welfare, 1993a); to create a tool for everyday clinical work; to create the prerequisites for continuity of care; to serve as a source of information for the patients and their relatives; to constitute a basis for supervision and control; and to serve as a source for nursing research (National Board of Health and Welfare, 1993b). However, studies have shown that the district nurses' knowledge of pain assessment and nursing documentation seems to be insufficient (Walker *et al.*, 1990;

Address for correspondence: Lena Törnkvist, Department of Clinical Sciences, Division of Family Medicine, Alfred Nobels Allé 12, S-141 83 Huddinge, Sweden. Email: lena.tornkvist@slpo.sll.se

Törnkvist *et al.*, 1997, 1998). Furthermore, hospital-based studies reviewing the nursing documentation related to pain have shown deficiencies (Clarke *et al.*, 1996; Carr, 1997).

The Swedish nursing documentation model VIPS has improved the quality, comprehensiveness, content and structure of nurses' documentation (Ehrenberg *et al.*, 1996). VIPS stands for the four concepts of well-being, integrity, prevention and safety (VIPS in Swedish spelling) and expresses 'basic values of nursing care and aims at guiding and supporting the nursing process' (Ehrenberg *et al.*, 1996: 855). This documentation model consists of key words on two levels (main key words and sub-key words). The main key words are based on the nursing process (Yura and Walsh, 1988). The different key words are used as headlines in the patient's record, with the aim of helping the nurse to structure the nursing documentation and make it accessible. The VIPS model has been translated into several languages, and in Sweden 86% of the nursing schools are teaching it (Ehrenberg *et al.*, 1996). It has been found to be both useful and easy for students and nurses to use (Ehrenberg *et al.*, 1996).

To facilitate the district nurses' documentation, the VIPS nursing documentation model (Ehnfors *et al.*, 1991; Ehrenberg *et al.*, 1996) was introduced into a primary health care area in the Stockholm County Council region in 1995. After the district nurses had used the model at the primary health care centres (PHCCs) for a year, a project was initiated that aimed to educate district nurses to become 'pain advisers'. Part of the education aimed at teaching them how to assess and document pain and any results of pain interventions. The aim of this study was to investigate whether the nursing documentation of patients suffering from chronic pain conditions changed after the introduction of the 'pain advisers'.

Methods and materials

Selection of study and control areas

The South Western Health Care Region of Stockholm County Council consists of 22 primary health care centres (PHCCs). A study area and a control area were selected. The selection was not made at random but was based on the

area's geographical locations and the requirement that there should not be any regular meetings between the district nurses in the two areas. Furthermore, the nursing documentation system had to be computerized at the PHCCs included. Two areas fulfilled the criteria, one in the central part of the south western health care region with seven PHCCs and the other with five PHCCs. The area with five PHCCs was selected by drawing lots to be the study area and consequently the other area with seven PHCCs became the control area. One interested district nurse at each of the five PHCCs in the study area was educated to become a 'pain adviser'.

Intervention

The five district nurses underwent a four day course, including pain physiology, pharmacology, nonpharmacological methods, the possible effects of chronic pain conditions on the patients' well-being and attitudes, and how to communicate with the patients. They were also educated in how to write a pain history, how to assess and analyse the patient's pain, how to implement and evaluate nursing interventions to reduce the pain and how to document all these steps of the pain-control process (Östlinder, 1996).

After the course, the five pain advisers continued to meet at regular meetings (2–4 hours each) during the study period. These meetings (10 in all) were arranged by one of the authors (LT) and comprised discussions between the pain advisers regarding the literature on and strategies for improving pain management and pain documentation. The meetings also included visits to two different pain clinics.

The pain advisers' role was to be an educational resource to their colleagues at their own PHCCs and thereby give patients with chronic pain conditions an individual, high quality of care. The pain advisers continued to work as district nurses, and the work included both caring for patients at home and having an outpatient clinic of their own. They individually had to arrange how to perform their additional pain adviser role taking into account the conditions and possibilities at their own PHCCs within their usual working hours. No extra resources were given to the pain advisers to facilitate them undertaking this role apart from the educational preparation and support discussed above.

Patient records and review periods

The patient records were reviewed before the pain advisers began implementing their new role in their PHCCs and 15.5 months later (Figure 1). In September 1996 and in January 1998 the district nurses in the study and control areas were asked to register on a study-specific protocol all the patients older than 16 years with chronic pain conditions for whom they cared. Chronic pain was defined as pain which had lasted for more than three months. The district nurses were also asked to state the reasons why the patients were having chronic pain.

A total of 145 (57 study area, 88 control area) patients were considered to fulfil the inclusion criteria and were registered in 1996 and 104 (76 study area, 28 control area) in 1998. The nursing records of all the registered patients in 1996 (except for one in the study area who was registered only by age and sex) were collected and reviewed from the day before the introduction of pain advisers (14 October 1996) and 8.5 months preceding this date (Figure 1). The same procedure was performed in 1998, i.e., the records for the 104 patients registered in 1998 were reviewed for a period of 8.5 months prior to the survey date. The pain advisers worked to improve the nursing care and the nursing documentation at their own PHCCs from 15 October 1996 onwards.

Contacts (selection of documentation related to chronic pain in the records)

A 'contact' was defined as a computerized registration (which automatically registers the date and the nurse's signature) containing nursing documentation. At first, all the nurses'

documented contacts with the patient, relatives and/or other professionals or nurses in hospitals (for example, out-clinic visits, home visits and telephone contacts) were counted; both the total number of contacts with nursing documentation (including pain documentation) and then the number of contacts regarding nursing documentation related only to chronic pain were counted. Only the latter documentation was further reviewed by means of a study-specific protocol.

Protocol for reviewing the nursing documentation related to chronic pain

A protocol to review the nurses' documentation of the chronic pain conditions was developed for the study based on the NoGa protocol for reviewing nursing documentation (Nordström and Gardulf, 1996), the VIPS nursing documentation model (Ehnfors *et al.*, 1991; Ehrenberg *et al.*, 1996) and knowledge derived from the literature on pain assessment, documentation and well-being (Camp-Sorrell and O'Sullivan, 1991; Ehnfors *et al.*, 1991; Ferrel, 1995; SSF and Spri, 1996) (Figure 2). The reviews were performed by one of the authors (LT). Inter-rater reliability was tested as the percentage of agreement between one of the authors (LT) and a skilled, VIPS-model teacher. The two persons reviewed the same six records, selected randomly. A close agreement of 86% was found on comparing the two reviewers' results for the different aspects in the protocol.

Main key words

Scores could be obtained if any main key word could be identified in the patient's record

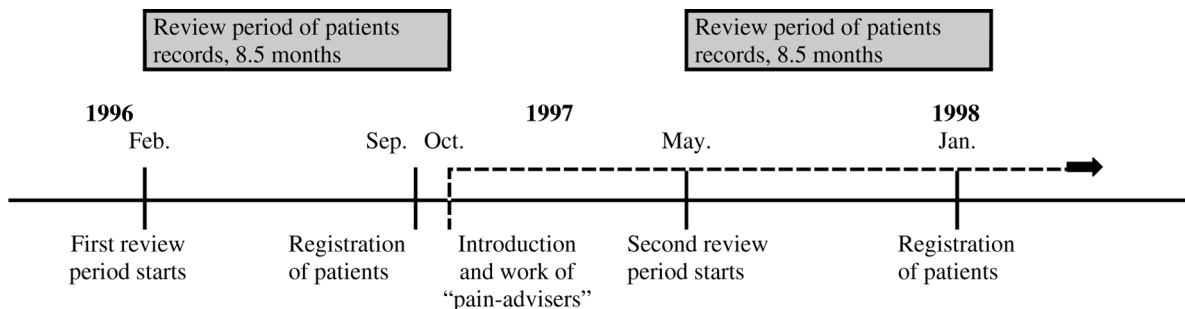


Figure 1 Diagram for review periods of the patient records and the introduction and work of the pain advisers

I. Overall review

Main keywords (*main keywords in the nursing process relating to chronic pain conditions*)

(*1 score for each identified keyword/record, max. 8 scores/record*)

1. **Nursing history** ('Patients or significant other's description of reason for admission or care. Expectations as to care and treatment. Health situation and living conditions before current care and contact as a basis for continuous assessment and nursing care planning')
2. **Nursing status** ('Patient's health situation and conditions influencing present nursing care, at the time of contact and continuing during the care episode')
3. **Nursing diagnosis** ('Identified and prioritised needs, problems or risks, possible causes and symptoms influencing functioning in daily life. Needs to maintain or strengthen resources and functions')
4. **Nursing goal** ('Goal and expected outcome in measurable terms. Prognosis. Expectations and priorities agreed with patient or significant other. Goals can be related to functional ability and health status, management of health promotion, self-care and disease, lifestyle alterations, patient's satisfaction and well-being. Long and short term')
5. **Planned nursing interventions** (Includes documentation regarding the planning of forthcoming nursing interventions)
6. **Nursing interventions (performed)** ('Specify what, when, where, how and by whom. The intention behind interventions is to promote health and prevent illness. Maintain or retain health and well-being. Promote a peaceful death. This can be done by different approaches, such as facilitating, limiting or protecting, motivation or distraction, support or assistance, doing things for the patient, awaiting or withdrawing')
7. **Nursing outcomes** ('Outcome and evaluation from a nursing perspective. Signs and symptoms of changes, stability or achieved goals, short and long term. The effect of nursing care on the patient's functional ability and health status, management of health promotion, self-care and disease, lifestyle alterations, patient's satisfaction and well-being. Continuously during care episode and at discharge, related to nursing diagnoses, goals and interventions')
8. **Nursing discharge** (Discharge note or note in connection with transfer. Summary of the nursing care and the patient's progress during the care episode. Patient's health situation, nursing diagnosis and nursing-care plan when relevant, including communication problem if any. Information and contacts made prior to discharge. Information about to whom the nursing discharge note has been given)

II. Detailed review of the two main keywords "nursing status" and "nursing interventions"

a. Nursing status

Description of chronic pain conditions (*1 score for each identified aspect/record, max. 8 scores/record*)

1. Whether the patient suffers from chronic pain (a medical diagnosis was not regarded as enough)
2. Location of pain
3. Character/pattern/intensity of pain
4. Assessment with a scale (visual analogue scale, VAS)
5. Complaints and expressions
6. Behaviour in connection with pain (e.g., crying)
7. What causes onset or relief
8. How the patient manages the pain (including drugs)

Well-being relating to chronic pain conditions

(*1 score for each identified aspect/record, max. 5 scores/record*)

1. Mobility
2. Isolation
3. Mood
4. Sleep
5. Energy

Patients' control and information relating to their chronic pain condition

(*No. and percentage. This part was not scored*)

1. Pain was/was not under control
2. Patient felt/did not feel well informed about the painful condition

Protocol continued

Protocol continued

b. Nursing interventions

Direct and indirect nursing interventions relating to chronic pain
(Distribution in percentage of total no. of documented interventions)

- A. Direct nursing interventions (i.e. direct contact with the patient)
 - A.1 Nursing care and communication (for example, support, information, training given to the patient)
 - A.2 Medical and/or technical interventions (for example, different kinds of treatment, transcutaneous, electrical nerve stimulation (TENS), massage)
 - A.3 Drug management (for example, the delivery of drugs to the patients for direct intake, injections)
- B. Indirect nursing interventions (i.e. indirect contact with the patient)
 - B.1 Nursing care and communication (for example, support, information, training given to “others” in order to help and support the patient)
 - B.2 Drug management (for example, distribution of drugs into a pill dispenser)
 - B.3 Administrative interventions (for example, different kinds of written applications, prescription of technical equipment)
 - B.4 Administrative drug management (for example, prescription of drugs by the district nurses)

Figure 2 The protocol for review of the district nurses’ documentation relating to chronic pain. (The definitions of the main key words are from Ehrenberg *et al.*, 1996, 865–67)

(1 point/main key word/record; possible score ranged from 0 to 8 points per record) (Figure 2). Scores for the documentation of the outcome of the nursing care (nursing outcomes) were obtained only if they were related to the documentation of nursing interventions.

Detailed review of nursing status

The protocol was prepared for a detailed review regarding the documentation of nursing status focusing on seven areas including: the description of pain, well-being in relation to pain and the patient’s perception of having the pain control or not and whether the patient felt well informed about his or her chronic pain condition or not (Figure 2). Scores could be obtained if the different aspects regarding the description of pain could be found in the record (1 point/aspect/record; possible score ranged from 0 to 8 points per record). The same scoring system was used regarding any documentation of the patients’ well-being (1 point/aspect/record; possible score ranged from 0 to 5 per record). Documentation regarding the patients’ perceptions of control and information was not scored, but a note was made as to whether it was found or not (Figure 2).

Detailed review of nursing interventions

The documented nursing interventions were counted and divided into two main groups with three and four subgroups, respectively (Figure 2), in order to identify the proportions of the seven aspects of nursing interventions specified in Figure 2.

Statistical analysis

The chi-square test was used to test the significance of differences in proportions and distributions. The limit of statistical significance was $p < 0.05$. The study was approved by the Ethical Committee at Huddinge University Hospital.

Results

No statistically significant differences regarding the sex and age distributions of the registered patients in 1996 and 1998, respectively, could be found (Table 1). According to the district nurses, of the total of 248 registered patients in 1996 and 1998, 38 per cent had pain located in the lower part of the legs, in the knees and/or hip joints, 26% in the back, shoulders and/or neck, 12% in the joints and 11% in the muscles. Thirteen % were suffering

Table 1 The distribution of the registered patients

| Characteristics | (1) SA96 <i>n</i> = 57 ^a | | (2) SA98 <i>n</i> = 76 | | (3) CA96 <i>n</i> = 88 | | (4) CA98 <i>n</i> = 28 | |
|-----------------|-------------------------------------|------|------------------------|------|------------------------|------|------------------------|------|
| | <i>n</i> | (%) | <i>n</i> | (%) | <i>n</i> | (%) | <i>n</i> | (%) |
| Sex | | | | | | | | |
| Women | 48 | (84) | 57 | (75) | 62 | (70) | 21 | (75) |
| Men | 9 | (16) | 19 | (25) | 26 | (30) | 7 | (25) |
| Age | | | | | | | | |
| 24–50 | 9 | (16) | 11 | (14) | 10 | (11) | 4 | (14) |
| 51–65 | 7 | (12) | 17 | (22) | 14 | (16) | 8 | (29) |
| 66–80 | 26 | (46) | 24 | (32) | 39 | (44) | 9 | (32) |
| Over 81 | 15 | (26) | 24 | (32) | 25 | (29) | 7 | (25) |

^aOne patient was registered only by sex and age and was not included in the review. The chi-square test regarding distribution within or between the study and control areas in 1996 and 1998 was NS. SA, study area; CA, control area.

from pain resulting from cancer, stroke, migraine or shingles.

Contacts

Except for the patients in the 1996 control area sample (CA96), over 80% of the patients had been in contact with the nurses for three months or more. The number of contacts containing pain documentation in proportion to all contacts varied in the different areas: SA96 (19%), SA98 (21%), CA96 (15%) and CA98 (8%). The decrease in the control area was statistically significant ($p < 0.001$). A higher proportion of pain documentation was found in SA98, compared with CA98 ($p < 0.001$).

Main key words

It was found that the district nurses used few of the eight main key words to document the patients' chronic pain conditions (Table 2). However, the uses of some of them were found to increase at follow up; planned nursing interventions in the study area and nursing status in

the control area (Table 3). It appeared that the district nurses in the control area started at a lower baseline of nursing documentation regarding patients with chronic pain conditions, but caught up with the district nurses in the study area at follow up (Table 3).

Detailed review of the nursing status

The location of pain and how the patients managed their pain were found to be the most frequently documented aspects of pain in both areas in 1996 and 1998 (Table 4). Otherwise, documentation regarding the description of the patients' pain was found to be incomplete. At follow up, some improvements of the documentation in the study area were found; character/pattern/intensity of pain and assessments with the VAS scale (also in comparison with the control area), and notes on patients' complaints and expressions. The documentation in the control area improved regarding the location of pain and what caused the onset of pain. According to the proportion of obtained scores in relation to

Table 2 The number of main key words used by the district nurses

| Number of main key words found | (1) SA96 | (2) SA98 | <i>p</i> | (3) CA96 | (4) CA98 | <i>p</i> | Comparison 1 vs 3 <i>p</i> | Comparison 2 vs 4 <i>p</i> |
|--------------------------------|--------------------|--------------------|----------|--------------------|--------------------|----------|----------------------------------|----------------------------------|
| | <i>n</i> = 56 % | <i>n</i> = 76 % | | <i>n</i> = 88 % | <i>n</i> = 28 % | | | |
| 0–2 | 79 | 72 | NS | 93 | 90 | NS | NS | NS |
| > 2 | 21 | 28 | NS | 7 | 10 | NS | NS | NS |

The results are given as the percentages (%) of the reviewed records in which 0–2 or > 2 main key words were found.

Table 3 Main key words used by the district nurses to document data regarding the patients' chronic pain conditions

| Main key words | (1) SA96 | (2) SA98 | <i>p</i> | (3) CA96 | (4) CA98 | <i>p</i> | Comparison | | Comparison |
|---|--------------------|--------------------|----------|--------------------|--------------------|----------|--------------------|--------------------|------------|
| | <i>n</i> = 56 % | <i>n</i> = 76 % | | <i>n</i> = 88 % | <i>n</i> = 28 % | | 1 vs 3 <i>p</i> | 2 vs 4 <i>p</i> | |
| 1 Nursing history | 4 | 9 | NS | 6 | 7 | NS | NS | | NS |
| 2 Nursing status | 84 | 88 | NS | 51 | 86 | ** | *** | | NS |
| 3 Nursing diagnosis | 4 | 1 | NS | 2 | 4 | NS | NS | | NS |
| 4 Goals | 2 | 5 | NS | 1 | 4 | NS | NS | | NS |
| 5 Planned nursing interventions ^a | 2 | 16 | ** | 0 | 4 | NS | NS | | NS |
| 6 Nursing interventions | 57 | 57 | NS | 34 | 46 | NS | ** | | NS |
| 7 Nursing outcomes | 14 | 18 | NS | 2 | 7 | NS | ** | | NS |
| 8 Nursing discharge | 0 | 0 | NS | 0 | 0 | NS | NS | | NS |
| Proportion of obtained scores in relation to maximum possible scores ^b | 21 | 24 | NS | 12 | 20 | ** | ** | | NS |

^aPlanned nursing interventions was in this study considered a main key word.

^bNumber of reviewed records/area x 8 points.

** $p < 0.01$, *** $p < 0.001$.

n, number of reviewed records.

For each main keyword (1–8), the data are given as the percentage of the total number of records in which the key word was found.

Table 4 The district nurses' documentation of the description of the patients' chronic pain condition

| Description of different aspects of the chronic pain condition | (1) SA96 | (2) SA98 | <i>p</i> | (3) CA96 | (4) CA98 | <i>p</i> | Comparison | | Comparison |
|---|--------------------|--------------------|----------|--------------------|--------------------|----------|--------------------|--------------------|------------|
| | <i>n</i> = 56 % | <i>n</i> = 76 % | | <i>n</i> = 88 % | <i>n</i> = 28 % | | 1 vs 3 <i>p</i> | 2 vs 4 <i>p</i> | |
| 1 If the patient suffered from chronic pain | 5 | 12 | NS | 5 | 0 | NS | NS | | NS |
| 2 Location of pain | 75 | 79 | NS | 45 | 79 | ** | *** | | NS |
| 3 Character/pattern/intensity of pain | 7 | 24 | * | 13 | 0 | NS | NS | | *** |
| 4 Assessment with scale | 0 | 17 | ** | 0 | 0 | NS | NS | | * |
| 5 Complaints and expressions | 7 | 22 | ** | 5 | 11 | NS | NS | | NS |
| 6 Behaviour in connection with pain, for example, crying | 0 | 5 | NS | 1 | 0 | NS | NS | | NS |
| 7 What causes onset or relief | 13 | 20 | NS | 5 | 21 | * | NS | | NS |
| 8 How the patient managed the pain | 42 | 49 | NS | 19 | 18 | NS | ** | | ** |
| Proportion of obtained scores in relation to maximum possible scores ^a | 19 | 28 | *** | 12 | 16 | NS | *** | | *** |

^aNumber of reviewed records/area x 8 points.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

n, number of reviewed records.

For each description (1–8), the data are given as the percentage of the total number of records in which the description was found.

maximum possible scores the pain documentation was found to be more complete in the study area at follow up (also in comparison with the control area) (Table 4).

Sleep was found to be the most frequently documented aspect of well-being in both the study and control area at follow up. At follow up, some improvements were found in the study area; mobility (also in comparison with the control area), and energy. The documentation in the control area improved regarding sleep. According to the proportion of obtained scores in relation to maximum possible scores, the pain documentation was found to increase in both areas. However, the documentation was found to be better in the study area, compared with the control area at follow up in 1998 (Table 5).

No documentation was found in the patients' records giving information as to whether the patients considered that the pain situation was or was not under control. Also the documentation as to whether the patient felt or did not feel well-informed about his or her chronic pain condition was found to be incomplete, although the nurses in the study area in 1998 documented this to a greater extent (11 per cent of the records, as compared with 0 per cent in 1996, $p < 0.05$).

Detailed review of the nursing interventions

In the study area, both in 1996 and in 1998, the most common, documented intervention was

indirect drug management (for example, distribution of drugs into a pill dispenser). The proportion of documentation regarding both direct and indirect nursing care and communication (for example, support, information and training) increased in both the study and control areas between 1996 and 1998 ($p < 0.01$).

Discussion

The district nurses' documentation regarding the patients' chronic pain conditions was found to be incomplete. Few of the contacts contained any information regarding these patients' chronic pain conditions – only about one-fifth of the contacts with the patients in the study area and even less in the control area. This was in spite of the fact that the contacts specifically concerned patients with chronic pain conditions.

After the introduction of the pain advisers at the PHCCs in the study area, some statistically significant improvements were found only in the study area. These were documentation regarding planned nursing interventions, character/pattern/intensity of pain, assessments with the VAS scale, notes on patients' complaints and expressions, the patients' mobility and energy related to their chronic pain condition, whether the patient felt or did not feel well informed about his or her chronic pain condition. These are

Table 5 The district nurses' documentation of the patients' well-being

| Different aspects of the patients' well-being | (1) SA96 | (2) SA98 | <i>p</i> | (3) CA96 | (4) CA98 | <i>p</i> | Comparison | |
|---|---------------|---------------|----------|---------------|---------------|----------|------------|----------|
| | <i>n</i> = 56 | <i>n</i> = 76 | | <i>n</i> = 88 | <i>n</i> = 28 | | 1 vs 3 | 2 vs 4 |
| | % | % | | % | % | | <i>p</i> | <i>p</i> |
| 1 Mobility | 13 | 29 | * | 11 | 7 | NS | NS | * |
| 2 Isolation | 2 | 4 | NS | 0 | 0 | NS | NS | NS |
| 3 Mood | 13 | 17 | NS | 2 | 7 | NS | * | NS |
| 4 Sleep | 18 | 32 | NS | 7 | 21 | * | NS | NS |
| 5 Energy | 0 | 8 | * | 0 | 11 | NS | NS | NS |
| Proportion of obtained scores in relation to maximum possible scores ^a | 9 | 18 | ** | 4 | 9 | * | * | * |

^aNumber of reviewed records/area × 5 points.

* $p < 0.05$, ** $p < 0.01$.

n, number of reviewed records.

For each aspect (1–5), the data are given as the percentage of the total number of records in which the patients' well-being was found.

important, since effective pain assessment and its documentation are essential keys in the effective and optimal management of pain (for example, Ferrel *et al.*, 1991; Janman, 1993; Latham, 1993; Closs, 1994).

In our study, as well as in other studies concerning nursing documentation (Nordström and Gardulf, 1996; Hansebo *et al.*, 1999) and nursing documentation related to chronic pain (Carr, 1997), drug management was found to be a commonly documented, nursing intervention. However, at follow up in this study, the documentation of direct and indirect nursing care and communication, for example, giving support, information and training to the patients (direct) or relatives (indirect) regarding the patients' chronic pain, had increased in both the study and control areas. This may indicate an increasing awareness of the importance of documenting other nursing interventions than drug management.

Although some improvements were found, the review of the documentation in both 1996 and 1998 showed that most of the different, main key words were lacking or very incompletely documented (i.e., nursing history, nursing diagnosis, goals, planned nursing interventions, the outcome of the care and nursing discharge). With such documentation, it becomes hard to follow up and evaluate the patients' care in daily practice or to use the record for other planned purposes.

Some of the findings in our study regarding the incomplete documentation of goals – whether the patient felt well informed about his or her chronic pain condition and that drug management was the most common, documented intervention – could be compared with the findings in hospital-based studies showing deficiencies on reviewing the nursing documentation related to chronic pain (Clarke *et al.*, 1996; Carr, 1997). One study showed that none of the documented goals for pain management were measurable, that the documented nursing interventions were focused on analgesia and that no psychosocial interventions were mentioned, for example, patient information (Carr, 1997). In the study by Clarke *et al.*, 90% of the records did not contain any documentation regarding the use of non pharmacological methods (Clarke *et al.*, 1996). Clarke also found that, despite a high, nurse-reported

use of a patient self-rating tool, a high percentage of the records (76%) lacked the results of the use of these measurements (Clarke *et al.*, 1996). At follow up, in our study, only the records in the study area contained any information about the use of a measuring scale, such as VAS.

In our study, improvements of the documentation were also found in the control area. One explanation of these improvements may be the overall, increased attention that nursing documentation received after the VIPS model was introduced to the district nurses in the region. The subject of pain has also, in the last few years, received increased attention in Swedish society. Furthermore, the selection of the 12 PHCCs included in the study was not performed at random. We endeavoured to achieve a controlled study design with both a study and a control area, but it cannot be excluded that the introduction of the pain adviser in the study area also affected the district nurses in the control area. However, it should be remembered that the documentation in the control area in many respects started in 1996 from a lower base, as compared with the SA96. Moreover, the follow up review in the control area in 1998 revealed that the documentation in the control area had barely reached the level that was already found in the records from the PHCCs in the study area in 1996.

One reason for the minimal documentation related to chronic pain in our study may be that the pain advisers focused not only on improving the nursing documentation, but also on the overall pain management skills of the district nurses. Furthermore, during the study period, the pain advisers had both to educate themselves regarding pain management and nursing documentation and then try to improve their colleagues' level of attainment at their PHCC. Accordingly, the study period may have been too short to give the pain advisers a reasonable chance to improve the documentation to any great extent.

We do not know to what extent the nursing documentation reflects the actual care given to the patient. In our study, it is possible that the full impact of the pain adviser in the study area was not reflected in the documentation. The relevance of the content of the patients' records was not investigated in this study. Research on the possible correlation between nurses' documentation and quality of care is essential.

In order to meet the identified needs found in the study and in previous studies (Törnkvist et al., 1997, 1998), one or two district nurses at all the 22 PHCCs in the south western health care region were, after this study was concluded, offered university training for five weeks in pain management. The study findings suggest that measures to improve nursing documentation need to be more powerful and to be introduced over a longer period of time than was the case in our study. A district nurse has, therefore, recently been designated to lead a network and to develop the routines and nursing documentation at the 22 PHCCs with a focus on pain and pain management.

Conclusion

The district nurses' documentation of the patients' chronic pain was found to be incomplete and minimal. After the introduction of pain advisers into the study area, some improvements were found, although certain aspects of the documentation also improved in the control area. Our results indicate that the introduction of pain advisers to some extent improved the documentation in the study area, but that further educational interventions and long-term support for the district nurses are probably needed to improve documentation further.

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