Abstract:

Introduction: In Austria, in many places there is no availability of night nursing from mobile nursing providers for patients living at home.

Objectives: It was of interest to identify a possible need for mobile night nursing from the viewpoint of various service recipients and service providers.

Methodology: In an explorative qualitative study, guideline-based interviews were carried out with 16 care-dependent persons, 19 family caregivers, four nursing and four administrative managers of public mobile nursing services as well as with four district physicians in Tyrol. Data were collected between June 2015 and January 2016.

Results: This article highlights that almost all respondents perceived a particular need for the use of mobile night nursing in the form of unscheduled on-call services as well as planned night shifts for people with complex care situations.

Conclusion: Regardless of the postulated mobile night nursing, there were also problem areas which have not been implemented in the form of pilot projects to this day (two years after the end of the study).

Key Words: Mobile night nursing, care-dependent persons living at home in Tyrol, unscheduled on-call services, planned night shifts, people with complex care situations

Introduction

In Austria, possible nursing services for care-dependent people and/or their family caregivers at night include the 24-hour care (the caregivers mostly originate from Austria’s neighboring countries in Eastern Europe and live with the care-dependent persons in their home environment), as well as overnight care in retirement homes and nursing homes or short-term care facilities. Nightly services provided by public mobile nursing providers cannot be found everywhere in the available service catalogues. For example, in Tyrol (one of Austria’s nine federal states), this type of service is missing entirely. There currently are 62 public health districts that offer their services 365 days a year. In principle, nursing of clients takes place between 6:00 a.m. and 10:00 p.m. In most cases, however, it is between 6:00 a.m. and 2:00 p.m., often followed by telephone availability into the early evening hours. Mobile night nursing services are currently not available except in special cases (e.g. palliative care). Care-dependent persons and/or their relatives therefore have no access to professional mobile nursing during the night, oftentimes already after two o’clock in the afternoon. That there is a need for professional night nursing can be deduced from the results of the Social and Youth Welfare Report of the State of Tyrol¹, according to which 71% (n=7,511) of all persons cared for by the district nursing services were 75 years of age or older. Moreover, in the years covered by the report, 39% (n=4,160) of all care allowance recipients in care levels 3 to 7 (note: in

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Austria, there are seven levels to assess a person’s need of care (with a nursing need of over 120 hours (level 3) to over 180 hours (level 7) per month were cared for by the district care services in Tyrol.

Maternal The Department of Social Services of the State Government of Tyrol planned to introduce mobile nursing night shifts. The planned expansion of the nursing services provided by the public health districts to include the night hours aims to ensure the around-the-clock mobile nursing care in Tyrol for persons with a nursing and care need living at home and/or their family caregivers and to apply the principle of “outpatient before inpatient”.

The objectives of the present study were, from the viewpoint of various service recipients (care-dependent persons, family caregivers) and service providers (nursing and administrative managers at the public health districts, district physicians), to identify a possible need for mobile night nursing in Tyrol and, on that basis, to derive conceptual proposals for possible implementation.

Conceptual Framework

In general, night nursing in a community context is defined as nursing-related tasks provided on demand during the night. A distinction must be made between mobile on-call night nursing services and mobile nursing night shifts. According to Carstens, mobile on-call night nursing services are defined as mobile nursing services with telephone availability (with a RN on duty). These services involve unscheduled and unforeseeable visits. Mobile nursing night shifts provide services upon prior request made by the patients and/or their family caregivers. These services involve planned and foreseeable visits.

Professional nursing services: In the present study, these are understood to be activities that comprise ‘nursing core competencies’ and ‘competencies in medical diagnostics and therapy’ as defined in the Austrian Health Care and Nursing Act.

Present research situation: An international literature search in the CINAHL and PubMed databases on the subject of on-call night nursing services/nursing night shifts for care-dependent persons at home identified five relevant studies from Japan, Sweden, Taiwan, the United Kingdom and Germany.

The study by Naruse et al., conducted in Japan, showed that elderly care recipients (n=280) generally had more unmet needs at night than during the day. Night nursing services were most often needed by persons who needed to take their medicine at night.

The Swedish study, conducted by Gustafsson et al., looked at the activities of RNs during night shifts in a municipal setting and their work conditions. All seven interviewed RNs articulated having, on average per night shift, nursing responsibility for 21 assisted living units and 25 residential units for handicapped persons. The RNs also stated that they conducted complex treatments (tube feeding, peritoneal dialysis, ulcus cruris, etc.) at night.

A qualitative study conducted in Taiwan by Lee et al. as to experiences and expectations of family caregivers (n=50) with and at long-term care facilities showed that all respondents expressed the desire that additional night nursing services be of greater importance in cases of serious illness on the part of the patient or for special needs, e.g. holiday, on the part of relatives.

In a qualitative study conducted in the United Kingdom by Kelly et al. (9), subjective viewpoints of RNs (n=27) concerning advantages and disadvantages of day and night shifts were examined in two different nursing settings (acute and community care). The results clearly show that night shifts were associated with fewer disruptions and more time for administrative work (n=11), but, with more time for “actual” nursing (n=16), also with isolation and loneliness (n=16) all in the community setting.

In a German study, Carstens conducted a survey among
Managers of mobile care facilities (n=56) in all districts of Berlin. Three quarters (n=42) of all respondents stated that they offered night nursing in the form of on-call services and night shifts through state-qualified nurses. Among the on-call services, it was possible to deduce a trend as to the relation between the frequency of the visits and a specialization on certain illnesses. The most common reason for on-call visits were falls, panic, confusion and pains. These are unscheduled visits. Night shift services, requested mostly by clients in care level 3 (out of 5, note: the weekly time needed for nursing interventions must be 5 hours per day on average) and/or their relatives, were provided in planned visits usually between 10:00 p.m. and midnight and in the morning from 4:00 a.m. to 6:00 a.m. In this context, the requests concerned end-of-life care, incontinence management, patient positioning and bed making.

**Methodology**

The following two research questions were central to the present explorative study:

- What needs do service recipients and service providers see for on-call night nursing services/nursing night shifts in mobile nursing in Tyrol?
- What implementation possibilities and problems exist for on-call night nursing services/nursing night shifts in the context of mobile nursing from the viewpoint of the service recipients and service providers?

Providers of four (out of 62) public health districts in Tyrol expressed their interest in participating in the study. In order to cover the topic to be studied from the viewpoint of service recipients and service providers, five groups of potential study participants were defined:

- **Service recipients**: Group 1: care-dependent persons living at home; Group 2: family caregivers
- **Service Providers**: Group 3: nursing managers; Group 4: administrative managers; Group 5: district physicians

All potential study participants had to fulfil the **following inclusion criteria**: voluntary participation in the study as well as written and signed informed consent.

Care-dependent persons had to have reached the age of majority, have received nursing services from one of the four public health districts for at least two months, have a nursing need of at least care level 3 (a necessary need of care to extent of more than 120 hours per month)\(^\text{2}\), could not have any cognitive impairments, and must not have been under legal guardianship or conservatorship\(^\text{10}\).

The family caregivers had to have reached the age of majority and their care-dependent relative had to have a nursing need of at least care level 3.\(^\text{2}\)

Nursing and administrative managers had to hold a leading or deputy position. The **district physicians** had to perform the duties of such or at least hold a deputy position.

The research design was that of an explorative qualitative study. The focus of the care-dependent people and family caregivers was on their subjective experiences, wishes and viewpoints concerning a given need for professional night nursing visits. Half-standardized, problem-focused, guideline-based interviews were conducted. Half-standardized, guideline-based focus group interviews – in two cases one-on-one interviews – were conducted\(^\text{11}\) with the nursing and administrative managers and the district physicians. The interview guidelines were developed using the SPSS method (SPSS stands for the German words: sammeln, prüfen, sortieren, subsumieren, i.e. collect, check, sort, prioritize) by Helfferich\(^\text{12}\).

Data was collected from the contents of the guided interviews, postscripts and recordings. The one-on-one and focus group interviews were recorded with a mobile phone. The interviews were transcribed according to the guidelines of \(^\text{13}\), dialects were smoothed and the names of the respondents were anonymized.
The data was analyzed in the form of a comprehensive content analysis using the MAXQDA 10 software. In a first step, important statements were tagged as coding units (coding). These were assigned a meaningful short version (paraphrase) as code. On the basis of the paraphrases (n=1,055), similar comments were grouped to create sub-codes (n=36). These were subordinated to the preliminary main codes (n=8) so that a code tree was developed. Then, similar paraphrases were grouped and superordinate codes were created. These were assigned to the above-mentioned eight main codes. The preliminary code tree was revised and, finally, five categories were defined. The current publication refers only to four categories.

Result

Interviews were conducted with 16 care-dependent persons, 19 family caregivers, four nursing managers, four administrative managers and four district physicians (n=47).

Category 1: Emotions and fears at night

Nearly all care-dependent persons (n=13) articulated as their goal in life to be able to remain at home until the end of life. Some were worried by the thought of how that would be possible if their health continued to deteriorate. “I’ve got my wife, but she isn’t the youngest anymore either. During the day, the children and the nurses from the district care services are here. But the nights are always a bit scary because we can’t expect any help or assistance from anyone.” Another patient explained: “I have nobody with me at night. When I’m in a bad way and get scared, I press the emergency call button. Then at least someone gets in touch with me.” Out of concern for the wellbeing of the family caregivers, care-dependent persons who live alone only rarely call their relatives. “My daughter needs the time off at night. If I’m really in a bad way at night, I only call her if it is really urgent, if I am short of breath or too shaky to stand up by myself. She needs her sleep.”

Category 2: Urgent need

Nearly all care-dependent persons (n=11) saw mobile on-call nursing services as well as nursing night shifts as the best option to remain at home for as long as possible. “When there are on-call services and I know that I can call when I’m at a loss, then maybe I can stay at home longer. I would like to stay at home.” In the context of personal safety, the night shift nursing services were seen by all care-dependent persons as playing an important role. “If I knew that someone was coming to check on me like they do during the day that would definitely be good.” Some care-dependent persons would like to have on-call night nursing services where they could speak with a nurse on the phone in case of an emergency similar to calling the emergency number. “That would be ideal. If my blood sugar goes crazy again – which it does often – then I could talk to a nurse about what I should do.” To avoid subjecting themselves to risks at night, four care-dependent persons said they took medication or used certain aids to guard against falls at night. In this context, one patient said: “My husband wears protective underwear, I have pads. That way we stay in bed all night. We go to the toilet during the day because then we know that someone is coming.”

Three out of four district physicians were in favor of mobile night nursing. One said that when it came to matters of nursing at night “many care-dependent persons need the certainty that they can call. It’s about availability. During the day, the people are taken care of. And from 10:00 p.m. to 6:00 a.m., nobody is responsible except the emergency medical services or the rescue services. But they are only called if an acute health problem arises. For nursing needs, there is nothing on the part of the public sector. That often is a reason to think about a nursing home because in a home there’s somebody there around the clock.”

Category 3: No need

One district physician, one nursing manager and one
administrative manager saw no need for mobile night nursing services. In this context, the district physician said the following: “I don’t know when in the last 29 years I would have needed a home nurse. A home nurse wouldn’t have helped me anywhere at night.” The nursing manager articulated: “I think if there were on-call services at night, they would certainly be used. But now that I say that we could begin tomorrow, I can’t think of any patient who really needs that.” The nursing manager later added: “The nighttime need is covered by general practitioners and the hospice service. And the senior emergency call service and the Red Cross also offer elderly people security at night. The patient wouldn’t know anymore who should call whom when and for what. So what do we need that for?”

Category 4: Possible obstacles and problems in the implementation

Questions regarding implementation possibilities and problems were directed exclusively to nursing managers, administrative managers and district physicians. Although the majority of the three groups saw a need and a necessity for offering mobile nursing night shifts, in this context they reported principally about problem areas related to possible implementation. Nighttime staffing was mentioned as the greatest challenge by both the nursing and the administrative managers. Essential here was that “many nurses work in home nursing because they don’t have to work night shifts. As I said, their willingness to work night shifts is important.” Three administrative managers saw another problem in the financing of the night nursing services. “The night shifts would have to be financed by the public sector, otherwise nobody will use them. But I can imagine a deductible for the patients.” The group discussion with the district physicians revealed two main problems in the possible implementation of mobile night nursing services. These had to do with administering medicines in an emergency and the performance of medical home nursing activities by RNs. One district physician said: “If the district offers night shifts, the people are sure to call the nurses at night even in an emergency. Legally speaking, however, nurses are not allowed to administer emergency medicines in an emergency without consulting a physician. The consequence is that we (note: the physicians) or the rescue services are called.” The situation is very similar when it comes to the performance of medical home nursing activities. “You can’t do anything without doctor’s orders.” At the end of the discussion, one district physician said that “nursing night shifts actually make little sense without a legal extension of the powers of RNs. Here, there is the danger of redundant financial structures developing.”

Discussion

The main result of the present study was that 44 of 47 respondents from all five groups of service recipients and service providers perceived a corresponding need for mobile night nursing services by the public health districts in Tyrol for elderly care-dependent persons in complex nursing situations. Regarding possible client groups, the service providers especially mentioned people with dementia or Parkinson’s disease, bedridden patients, persons at risk of falls or those who were recently released from hospital and people suffering from incontinence. Similar to the definition in the present study, the client specification can be found in the results of Naruse et al.\(^5\) and Gustafsson et al.\(^6\)\(^,\)\(^7\). All of the aforementioned studies also revealed that a large portion of the nighttime nursing visits at the patients’ homes were in relation to the performance of complex nursing situations and the administering of medicines. Psychosocial events (panic attacks, anxiety, etc.) as possible reasons for the use of mobile night nursing services – mainly on-call services – were a subject of the study by Carstens\(^4\).

In the present study, patients and relatives saw the aspect of the family caregiver being relieved of a part of their burden at night as very important. According to their statements, nighttime on-call services and night shifts from the public health districts have been urgently needed for a long time to take a load off the
family caregivers. These results correspond to the results of the study by Ausserhofer et al. (15) in which family caregivers (n=12) of chronically ill persons were interviewed about the burdens of 24-hour care. Burdens that became evident included: illness, sleep deprivation, and physical and psychological strain.

**Conclusion**

Regardless of the postulated mobile night nursing, there were also problem areas which have not been implemented in the form of pilot projects to this day (two years after the end of the study).

**Recommendation**

Especially the unanimous call by patients and family caregivers for mobile night nursing services led the authors and the Department of Social Services of the Tyrolean Regional Government to follow Carstens in recommending the inclusion of mobile on-call night nursing services as well as mobile nursing night shifts in the range of services of the public health districts. However, as there was no care provider (public health district) in Tyrol that had experience with night nursing services after the end of the study, the introduction of a pilot project with a duration of six months was recommended at two public health districts in Tyrol (urban and rural) to generate initial empirical data and figures.

As no statements could be made about how many persons would use the district night nursing services an exact definition of possible client groups was a priority from the viewpoint of representatives from the State of Tyrol. In a consensus conference, following the studies of elderly care-dependent persons were defined who were in a complex nursing care situation – regardless of the care level –, who were recently discharged from hospital and whose health status was to be stabilized. In order to assess the health status and the nursing need of care-dependent people, the initial assessment, part of the Austrian care allowance assessment, was recommended.

Whether mobile on-call night nursing services or mobile nursing night shifts, in both cases, depending on the nursing situation of the patients, RNs must perform home nursing care tasks (special and basic nursing care, nursing process) and medical home nursing care tasks. Medical home nursing care tasks may only be performed by RNs, however, if there is a doctor’s order for them. The doctor signing the order takes responsibility for the order (responsibility for giving orders), RN takes responsibility for carrying out the ordered activities (responsibility for carrying out orders). This is laid down correspondingly in a study.

Mobile night nursing services as recommended by the authors have so far (as of October 2018) not been included in the public health district catalogue of services in Tyrol and no pilot projects have been carried out to date. As the main reason for not offering the services so far, the persons in charge have stated that, if unforeseen acute nursing situations or nursing needs arise at night, RNs, from a legal point of view, are not authorized to perform medical home nursing activities or administer medicines without a doctor’s order. This would lead to redundancies during night nursing need situations instead of an improvement of the nursing situation of care-dependent persons and their relatives in the home setting.

A necessary staff augmentation of RNs and the standardization of organizational processes represent further obstacles to possible implementation from the viewpoint of the authors.

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**Ethical Consideration**

The study was approved in advance by UMIT’s Research Committee for Scientific and Ethical Questions (RCSEQ).
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References