

ORIGINAL RESEARCH

Registered nurses' perception of their professional role regarding medication management in nursing care of the elderly

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Abstract

Background: The role of the registered nurse (RN) in the municipality regarding medication management in care for the elderly is rarely discussed. Organizational issues related to medication management often contribute more to the management than needs of the patients, nursing skills, and collaboration with the physician in primary care.

Objective: The aim of this study was to describe RNs' perceptions of their professional role, especially regarding medication management in nursing of the elderly.

Design: The study is descriptive with a qualitative approach. Interviews with 16 RNs working at nursing homes were analysed by content analysis.

Results: The findings can be grouped into seven categories showing the RN in different roles while performing different aspects of her or his work: as controller, executer, messenger, supervisor, initiator, visionary and solitary worker. These themes were identified in the interviews and characterized the nurses' own judgements and actions taken, especially regarding drug treatment. Overall, the RNs described nursing in elderly care as an undefined profession lacking leadership regarding medication management.

Conclusions: The study concludes that medication management ought to be promoted in care for the elderly. To handle the challenge and risks of polypharmacy there must be sufficient and adequate reporting based on the RNs' nursing and skills to monitor and evaluate the drug treatment in teamwork with the physician. This requires leadership with understanding of the integration of services in care for the elderly, and of the medical processes and nursing skills involved.

Key words

Collaboration, Elderly, Medication management, Nursing process and quality

1 Introduction

During the last 50 years the number of people 65 years and older has increased. The ageing and elderly population place great demands on society and especially on health care to promote healthy and meaningful ageing, according to the World

Health Organization's concept of "active ageing"^[1]. In Sweden the legislation surrounding the Elderly Reform^[2] in the early 1990s meant an enormous change as it transferred the overall responsibility for care of the elderly to the municipalities. The reform demanded a shift from a medical perspective of elderly care to a more social perspective, with medical care provided when needed^[2]. This had organizational consequences for nursing homes, leadership issues, and issues such as prioritized needs of the elderly. For registered nurses (RNs), the Elderly Reform meant employment with a new caregiver organization. It also meant a new role since RNs in elderly care have the highest nursing education and are expected to act as leaders of the nursing staff without formal mandate. Care of the elderly within the municipalities is a growing area of practice for which no guidelines have as yet been developed^[3, 4].

The RNs in elderly care in Sweden have been described as working under pressure^[5-7] and lacking specialist competence in elderly care^[6, 8, 9]. They often work in isolation from colleagues and at a great distance from the physician who needs to be contacted when new medical problems arise. Unlike the RNs who are employed by the municipality, the physicians are medical consultants employed by the county council. The RNs have the medical responsibility for the care given; they also have responsibilities to prescribe different types of care and non-pharmacological treatment. A wide range of possibilities exist for such types of care, though they demand time and strategies for assessment, planning and evaluation^[7] by the RNs. This requires leadership with understanding of the integration of services in elderly care. It further requires medical judgement and nursing skills as well as social skills.

With an ageing population the real challenge for the health care system is the burden of chronic diseases and medication^[10] and, in this context, defining an adequate level of follow-up, taking into consideration normal ageing and the diseases of old age. Modern drugs have made great contributions to health and better quality of life, though an increase in negative side effects due to extensive pharmacological treatment, especially in multi-diseased elderly patients, has been noted^[11, 12]. Chronically ill, often named multi-diseased, nursing home residents are among the individuals who are most dependent on good health care, since they have reduced autonomy, and less ability and possibility to communicate about their conditions or symptoms^[13]. Multi-medication, or polypharmacy, defined as five drugs or more^[14, 15], is very common in nursing homes with approximately, 67% of the residents receiving 10 drugs or more^[16]. Polypharmacy results in increased risks of inappropriate drug use and adverse drug reactions, followed by higher morbidity^[17-20]. At nursing homes the use of medication dispensing systems (such as ApoDos) are very common to facilitate the extensive drug handling, though there are known risks with this system, such as more inappropriate drugs^[21] and errors when transferring^[22].

Studies examining different strategies for handling drug treatment in the elderly^[23-28] stress the role of the physician^[29, 30]. In this study we focus on the role of the RN as main caregiver working in collaboration with the consultant physician. The aim of the study was to describe RNs' perceptions of their profession concerning medication management in elderly care in nursing homes.

2 Methods

Design and participants

A descriptive study design with a qualitative approach was used. The study was carried out in Örebro, Sweden. Eight nursing homes with similar workloads but from different parts of the town were selected by the municipal administrators. To obtain different perspectives, as well as a range of work methods, competence and experience, the head of each nursing home was requested to invite two RNs to participate. All invited RNs agreed to take part in the interviews. The RNs represented dementia care and general elderly care units, the two categories of care for the elderly that have developed within the municipality. The sampling was guided and estimated to cover and reflect different perspectives and experiences^[31] of the RNs as well as different nursing homes.

The study was approved by the Regional Ethical Committee of Uppsala University, Uppsala, Sweden.

The participants included 16 RNs who were interviewed, 15 women and 1 man. Their years of working as an RN ranged between 1 and 39 years, with a median of 20 years, while duration of working in the same workplace ranged from a few months to 18 years, with a median of 5 years. No one had education in drug prescribing. Nine had some short courses of nursing education in advanced level, but only one had a specialized degree as nurse (see Table 1).

Procedure

To gain a deeper understanding of RNs' perceptions of their profession concerning medication management in elderly care the theoretical guiding for the interviews was derived from Kvale ^[32]. All the interviews were performed by the same interviewer, who was familiar with the organization and municipal legislation and experienced in interview technique. The interview guide for the interviews was based on previous studies and expertise ^[13, 33, 34] in the field. The guide provided background information on the education and experience of the RNs and employment in the municipality. This was followed by questions about the RNs' perspectives on their work conditions. The main section contained questions about nursing of the elderly with an evident focus on drug treatment, e.g. "What are your opinions on medication management?" The interview ended with questions on possibilities and needs for new strategies to develop the nursing profession in elderly care in the future.

The interviews lasted 20-40 minutes with a mean of 32 minutes and were conducted at the RNs' workplaces at a time determined by the participants. All responses and data were recorded and transcribed verbatim by a research assistant for further qualitative analysis.

Table 1 Characteristics of the Registered Nurses (RNs) in the Municipal Elderly Care

Participant	Years as RN	Experience of community elderly care (years)	Years in the same workplace	Education in drug prescribing (No/Yes)	Education in advanced level
RN1	36	18	18	No	Courses in diabetes, incontinence
RN2	18	6.5	6.5	No	Courses in pain, neurology, surgery
RN3	37	13	13	No	Courses in documentation
RN4	21	7	1.5	No	
RN5	39	6	5	No	Course in pharmacology
RN6	1	5	1	No	
RN7	0	10	0	No, only in incontinence	
RN8	5	18	5	No	
RN9	34	10	months	No	District nurse
RN10	15	2	2	No, only in incontinence	
RN11	10	7	7	No	Course in geriatric
RN12	36	5	5	No, only in incontinence, stoma	
RN13	27	18	8	No	Course in supervision
RN14	29	18	2	No, only in incontinence	Courses in palliative care, documentation
RN15	20	6	1	No	Courses in psychiatric care, pedagogy, philosophy
RN16	10	7	7	No	Courses in nutrition

Data analysis

The text was analysed using the qualitative content analysis method developed by Graneheim and Lundman^[35]. This analysis includes several steps (for example see Table 2). In the first step the interviews were read through several times to gain a sense of the whole. Meaning units were identified corresponding to the aim of the study. In the second step the meaning units were shortened to condense meaning, yet still preserving their core. In step three the condensed meaning units were coded. The codes were compared for differences and similarities, and sorted into subcategories and, thereafter, abstracted categories. Finally, a latent theme was formulated. The analysis was primarily carried out by the second author. All authors read through the interviews and discussed results throughout the whole process. Quotations were chosen to illustrate the findings and were translated from Swedish to English by an authorized translator.

Table 2. Two Examples Showing the Analysis Process, from Identification of Meaning Units, to Formulation of Subcategories, Categories and, Finally, a Theme, in Describing the Registered Nurses (RNs)' Perceptions of Their Professional Roles, Especially Regarding Medication Management in Elderly Care.

Meaning units	Subcategories	Categories	Theme
My area of responsibility is to see that there are drugs, to talk to the doctor, to change medication according to the doctor's prescription – that's my part...	Conducts their responsibility in the administration of prescription drug	Executor	Occupying different roles in an undefined profession lacking leadership
It is the staff who signal since they are the ones who give the drugs and see the first reaction...	RN delegates drug administration and the monitoring of effects and side effects to nursing staff	Supervisor	

3 Results

An undefined profession lacking leadership

The results can be expressed as one overall theme: occupying different roles in an undefined profession lacking leadership. The findings were grouped into seven categories showing the RN in different roles while performing different aspects of her or his work: as controller, executor, messenger, supervisor, initiator, visionary and solitary worker. The RNs described a self-defined professional role and conditions in which there was no proper organizational leadership regarding nursing and medication management in care of the elderly.

Controller

The RNs described the role of controlling subordinate nursing staff in their work of administering drugs to elderly people. To avoid mistakes, RNs need to compile the list of medications and furnish clear and unambiguous instructions regarding their administration. Procedures are in place for managing mistakes in drug administration and these are followed to trace the source of any mistakes made. The RN checks whether the subordinate nursing staff have kept a record of all distributed drugs. Where a signature is missing, the RN needs to follow up whether this is a real mistake, or whether the patient has received the drug, and the signature is merely missing. One RN explained, "The lists have to be very clear since the subordinate nurses administer the drugs ... if there are new doctors you have to control it thoroughly so that the drugs are clearly administered." (RN 9)

Executor

In working with drug prescriptions from the physicians, the RN's role was described as that of an executor. The responsibility for this task is clearly defined and the RNs were confident in this task. As one RN described it, "My areas of

responsibility are to see that there are drugs, to talk to the doctor, to change medications according to the doctor's prescription ... that's my part." (RN 3)

Almost all RNs mentioned the advantages of using the specific system for dispensing medication, called ApoDos, the main advantage of which was that the responsibility for correct dosage in the dispensers lay with the ApoDos system and not with the RN. The disadvantages of the system included drug wastage and the time it took to manage changes in dosage, but none of the RNs stated that they had taken any action to change the system.

Messenger

The RNs described their role of messenger when they had to pass on information concerning medication from the nursing staff or patients' relatives to the physician. Some RNs took the decision to pass information on to the physician after consulting with the nursing staff or other RNs, while others took the decision by themselves. One RN said, "During our team meetings we go through all the residents and if there is something that we think should be discussed during the ward round, then I write it down and take it up during the round with the doctor." (RN 7)

Supervisor

Nursing interventions were described as being initiated mostly by nursing staff or else by relatives of the elderly, in which case the RNs made their own assessment and follow-up. Some RNs stated that they took the initiative for nursing interventions, and later tutored and delegated certain tasks to the nursing staff. Monitoring effects and side effects of drugs was sometimes delegated to subordinate nursing staff or done in conjunction with the staff as a mutual responsibility, although some RNs perceived this as an RN task and responsibility. One RN explained, "It is the nursing staff that most often come and say that this person or that person is ill ... Then I have to go and make an assessment. Most of the time it is the nursing staff that say so, but also relatives." (RN 14)

Initiator

In working with the ward's drug supplies, RNs described the role of active initiator. Registered nurses actively managed the supplies and the RNs were concerned about which drugs are available for the RN to give without prescription from the physician. One RN related, "We have the option to make improvements in terms of what drugs we can administer. That's something we think of the whole time: what we can improve." (RN 6)

Visionary

The RNs described visions of changing the living conditions for the elderly in municipal nursing homes. They talked about nursing homes being better staffed to ensure that the elderly could live a more active life and also, that the nursing staff would have some time to, e.g., engage in conversation with the elderly. Some RNs suggested that RNs be educated in different specializations such as diabetic care or pain treatment. One RN said she felt that with better care, fewer drugs would need to be used. Several RNs said they would like to take pride in their work in elderly care: "I would like to create a feeling of pride to work with elderly ... I have no idea how, but I'm sure it's a matter of education." (RN 15)

Solitary worker

The RNs described themselves as not being acknowledged by administration, and as working in isolation. They felt that administration often did not understand the RN's position and situation, neither nursing nor medication management and monitoring, possibly because administrators were not usually medical trained. Positive feedback the RNs received for their work came from the patients and not from management. Furthermore, the RNs said they felt that competence development was not a high priority for management. Financial contributions from administration were poor and because of tight schedules the RNs had no opportunity to attend courses to further their education. However, the RNs themselves showed a passive attitude and did not take much action in this matter. When answering questions on drug treatment in the elderly no one even mentioned or took into account the official courses that had been carried out in collaboration with the physicians. As one RN said, "To get to know about the research that is being carried out on the older elderly – I think that would be

really interesting to find out ... I think they should ‘feed’ us with that, we shouldn’t have to search for it, what research has been done, so that we can choose ourselves, like, Aha, that’s good!” (RN 1)

4 Discussion

When exploring the RNs’ perceptions of their profession concerning medication management in elderly care, we identified seven categories. Our results show different approaches to and perspectives on the work of the RNs, which often appears to be characterized by absence of own judgement and action taken, especially regarding drug treatment, as well as a lacking organizational leadership for overall nursing and caregiving.

The idea for this study emerged from a previous study^[13] on drug treatment in elderly care with focus on the multi-medication in multi-diseased elderly individuals. Though involving the physicians, i.e. the prescribers, we did not succeed in achieving the expected improvements regarding drug treatment in that study. Rather, gaps in the care-giving process appeared. Lack of systematic work and differences in work performance became apparent^[13]. The question arose whether a missing link to enhanced drug treatment in nursing homes is to be found in RNs’ perspectives on their work. Whether an RN defines her or himself as more of a “controller” or as primarily an “executer” or, alternatively, a “messenger” or “supervisor” will have consequences on the work delivered. For the “controller” and the “supervisor”, the focus is on the subordinate nursing staff, either because of a shortage of resources^[36] or because of a personal preference. In both cases, the RN needs to rely on the knowledge of the nursing staff^[7]. In cases where RNs see themselves chiefly as an “executer” or a “messenger” the drug administration seems to be a passive process for them, involving little own reflection. The “initiator”, on the other hand, focuses on the drug supplies – in other words, on having the right drugs and on having enough drugs available when needed. None of these categories emphasizes non-pharmacological treatments or other important aspects of the nursing process^[7]. The “solitary worker” perspectives of the RNs and the feelings of isolation within an organization with social preferences are significant and alarming. Care taking of multi-diseased elderly individuals requires professional medical knowledge and organizational development. When medical or pharmacological education is considered to be a low priority in the organization this is reason for concern.

The workload of and pressure on the municipalities has increased^[36], demanding new strategies in care of the elderly. A previous study^[13] showed a clear lack of systematic follow-up and monitoring at nursing homes. Medication management is everyday work for the RN^[37], and not only do the RNs have to perform it safely^[5] but they also have to ensure quality drug treatment through discussions with the responsible physician^[37, 38]. There are risks in health care and there are risks for patient safety in municipal elderly care^[39] and if the physicians are not aware of the RNs’ perceptions of their professional role, drug treatment and evaluation may be hazardous.

In connection with the known risks of multi-medication for the elderly, the shortage of family physicians is often mentioned, firstly implying that no physician takes overall responsibility^[33, 40]. Family physicians’ opinions about responsibility regarding patients’ complete medications^[41] have been categorized into: imposed responsibility, responsibility for own prescriptions, responsibility for all drugs, different but shared responsibility and patient transferring drug information. The consequences of these opinions from the physicians when added to our results of RNs perceptions imply several risks and hazardous possibilities regarding drug treatment in the elderly. For vulnerable chronically ill elderly people it is a question of highest importance and patient safety that responsibility, communication and collaboration concerning drug treatment is totally congruent for the professions and individuals involved. Our focus was on the RNs and their medication management including medication monitoring and thoughts concerning polypharmacy. Seven different categories illuminated, meaning no insurance concerning uniform acting and reporting in medication management.

Some risks of the medication dispensing system (ApoDos) were described before but the system has also been criticized by physicians for being rigid and not encouraging reduction or removal of drugs^[40]. Still, for the RNs in our study population, the advantages of the ApoDos outweighed its disadvantages. The main advantage for the RNs was that

ApoDos reduces the RN's responsibility in drug handling and makes delegation to the nursing staff possible. Our results suggest that the RNs considered these advantages more important than the risks of persistent polypharmacy and inappropriate medication. The findings are astonishing since the dispensing system in no way reduces or changes the RNs' professional responsibility according to medication management. To provide appropriate drug treatment, the physicians are dependent on the RNs' judgment and actions^[40]. Following this, to avoid the prescribing cascade, RNs as medical professionals need to understand symptoms and effects as well as negative side effects of drugs^[42]. When RNs rely on the nursing staff an important part of the RNs' nursing skills in doing a check-up and alerting the physician is lost.

One strength of our study is that it was a follow-up of a previous study with new perspectives added. The study population included RNs from different workplaces with broad and different experiences who were given the opportunity to describe their perceptions of their profession in their own words. Another strength is the constitution of the research team with different levels of pre-understanding due to different clinical experiences and educational backgrounds, i.e. the two different professions involved which strengthened the validation. A limitation may be the use of an external interviewer, resulting in possible loss of follow-up questions. An advantage of this, however, was a neutral interview position in respect of professional obligations and contradictions. A further limitation may be that the RNs were chosen by the heads of the nursing homes, implying the risk of a "gatekeeper" influencing the results, though our results did not show any signs of this. Furthermore, the content analysis of the interviews made it possible to see patterns in the RNs' work.

The challenges in the care of multi-diseased elderly individuals under multi-medication are enormous. More attention needs to be focused on the importance and complexity of the nursing processes in nursing homes and how they are viewed by the RNs as well as the care organization. The clinical aspects of elderly care must be promoted, otherwise health assessment and medication management may be neglected. There must be sufficient and adequate reporting based on the RNs' nursing and medical skills to monitor and evaluate as well as question the drug treatment in teamwork with the physician.

In definitions of the nursing process^[7], medical assessment, treatment and evaluation are emphasized as fundamental to care giving. The main findings of the present study indicate that there is a need for both professional and organizational re-thinking^[43]. Re-thinking sometimes means returning to basic principles of professional performance and leadership, and not necessarily developing a new model.

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