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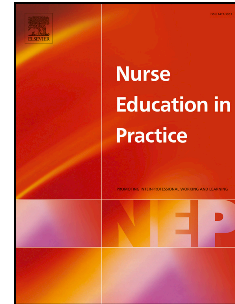

Nursing students contribution to rehabilitation for home-dwelling patients

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Statement of originality: The work is original and has not previously been published elsewhere, and is not in the process of being considered for publishing in another journal.

Statement of importance and/or novelty of the findings:

- Searches on relevant databases as Cinahl and PubMed has revealed that hardly any studies in the last ten years describe nursing students` contribution to rehabilitation of homebound elderly people.
- Nurse students are skilled in making rehabilitation plans and activities with home-dwelling patients.
- Home-based services should make better use of nursing students` expertise in rehabilitation work.

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- Charting a patient's values, wishes, resources and challenges stimulates the patient for rehabilitation.

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NURSING STUDENTS CONTRIBUTION TO REHABILITATION FOR HOME-DWELLING PATIENTS

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Abstract

Home-dwelling rehabilitation has expanded in the last years in Norway. The goal is to strengthen self-care for those who have suffered acute impairment or has due to chronic diseases. The purpose of this study was to explore whether nursing students in home-based nursing care (HBNC) can contribute to patients' rehabilitation and mastery work during clinical placement. The study considered 121 undergraduate nursing students' HBNC clinical placements where they, in collaboration with patients, have designed and applied a rehabilitation plan. The duration of the clinical placements were 8 weeks and took place in the municipality of Oslo. Prior to the clinic placement, the students have followed an introductory course rehabilitation plan development. During the initial phase of the placement, the students an eight-step model for mapping the patient`s values: 1) home, 2) close relatives, 3) physical activities, 4) friends, 5) job, 6) leisure activities, 7) body and appearance, and 8) spiritual and philosophical values. The students scaled the intensity of each value on a scale from 1 to 10. Through their clinical training a teacher and clinical supervisors have coached the students. The clinical placements have been followed by a written exam. Based on patients' values and resources, the students coached patients in self-care activities that brought the patients closer to their targets, whether it was on an activation or a participation level. The principal finding of this study was that the students in HBNC were adequately prepared to plan and carry out rehabilitation activities with patients.

Keywords: Nurse students; rehabilitation; home-based nursing care; service users.

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Highlights

- Nursing students are adequately skilled establishing essential trust and relationships with patients.
- Nursing student are adequately skilled to work with patients and multidisciplinary staff to identify activities that would bring patients closer to their targets independently, whether it is on an activation or participation level.
- Nursing students are adequately skilled and prepared to make rehabilitation plans with home-dwelling patients.
- Home-based services could make better use of nursing students skillset in rehabilitation.

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Introduction

Norwegian municipalities are responsible of ensuring adequate health and rehabilitation services on demand. There is currently a preference of performing such services in the patients` own residences. Nursing schools have the responsibility to prepare nursing students for their future practice and to motivate students to work with older adults. Nursing students in Norway have clinical placements in home-based nursing care (HBNC). A central goal of the students' clinical studies was to give functionally impaired patients' assistance in self-care, mastery and rehabilitation in order to reduce ageism (Hansen, 2016).

Mastery and Rehabilitation was a mandatory course worth 15 credits. This included one week of theory and eight weeks of practical studies in HBNC. In the introductory week of the program, where the focus was to prepare the students to work with patients in their homes, the students were introduced to ethical values, moral standards of nursing professionals (Vanlaere, 2007; Kang, 2017), coping, and rehabilitation theory. They also received training in the use of relevant monitoring tools, such as Bartel ADL-index (Mahoney, 1965) for mapping functional impairment, Bredlands' (2011) model for mapping a person's values, and ICF (Kostanjsek, 2011) for mapping resources and problems according to body structure, activities and participation. During this period, the students' teacher and their clinical supervisor exposed the students to ethical reflection in all activities.

The practical studies ended with a written, individual home-based exam that integrated students' knowledge of theory, individualized rehabilitation plans and practical experiences. The purpose of the exam was for students to demonstrate an understanding of the nurse's function, the patient's central role in rehabilitation and interdisciplinary cooperation in the development and implementation of a rehabilitation plan. A key requirement was for the student to map out and give an account for one patient's

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rehabilitation values, resources and problems related to their goals. The students used Bredland's (2011) model for mapping the patient's values: 1) home, 2) close relatives, 3) physical activities, 4) friends, 5) job, 6) leisure activities, 7) body and appearance, and 8) spiritual and philosophical values. The students scaled each area for intensity on a scale from 0 (not important at all) to 10 (very important). They used ICF (Kostanjsek, 2011) as a mapping tool for resources and problems according to body structure, activity and participation. Further, they prepared a plan for short- and long-term goals for the selected patient, and designed activities related to the patient's values. The activities were discussed and designed in cooperation with the patient, clinical supervisor and involved professionals.

The purpose of this study was to investigate whether nursing students were capable to contribut to the patients' rehabilitation and mastery work.

Research questions

- Do the students' reports reflect assessment of patients' values, problems, and resources?
- Do the proposed tasks and plans reflect the students' efforts in rehabilitation?
- Do the proposed tasks and plans designed for the patient reflect what is important to the patient?

Background

Europe has an ageing population. People's health status varies from country to country (Sitko et al., 2016). Older adults need to get proper treatment for their diseases and assistance in restorative care, to optimize their function and comfort. Over the past decade,

multidisciplinary professionals have developed broad and disease-specific models of care and restorative assistance for home-dwelling older patients (Cameron, 2010; McPherson, 2007). Currently, few international publications explore nursing students' contribution to rehabilitative care (Duplaga et al., 2016). These studies were associated with nursing students' attitude against older adults, and their motivation to care and work with older patients after registration (Chi et al., 2016; Perlman et al., 2017; Salamonson et al., 2017). However, other studies have revealed important nursing skills associated with enhanced health outcome of older patients such as qualities in building motivational relationships, extensive motivational work aiming to help citizens to see themselves as capable, resourceful and self-reliant (Hansen, 2016; Kirkevold, 2010; Pitt et al., 2014).

Homebound older adults are vulnerable. In Norway, 70% of women, 80 years of age and older, live by themselves (Andreassen, 2010). To be in control over their life conditions means a lot for older adult's feelings of dignity (Holmberg et al., 2012). Ageing, functional losses and chronic diseases often lead to gradual impairment and disabilities. Accidents can change a patient's self-care ability in a matter of seconds. It seems hard for many patients to become dependent on others to ensure their activities of daily living (ADL). Older adults may struggle to find motivation for mastery and rehabilitation, and become depressed and insecure about what the future will bring (Ylli et al., 2016). Harter (1999) stated that people who experience hope and positive self-esteem view challenging situations as less threatening than others may. In the rehabilitation process, it is important to develop a balance between self-care and self-efficacy (Fukuda, 2015). There are also evidence indicating that many frail older adults with low physical activity and muscle weakness will benefit better with care and prevention of health failure than with active rehabilitation Torpy et al. 2006. Harter (1999) also claimed that it seems obvious that people who have multiple values or important areas in their lives have more resources available than do people with few motivational values.

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Social and cultural participation are important for older adults and for rehabilitation; they contribute to prevention of functional impairment and empower physical activity. The World Health Organization (WHO, 2013) has revealed the categories of body functions and structures, activity and participation as important facets of rehabilitation. The Norwegian Directorate for Health has investigated a substantial amount in introducing this framework into health care services. The international classification of function (ICF) is a standardized tool for describing and categorizing health and health-related conditions from an individual standpoint (WHO, 2013, Kostanjsek, 2011). This model of classification is commonly used in documents and reports within rehabilitation. The model includes a mapping tool where a person's problems and resources are categorized as *organ/structure*, *activity* and *participation*. A person's resources within these categories, however, are continuously influenced by personal characteristics and environmental factors (Cameron, 2010).

The best results occur when they emerge from the patient's own desire and important goals (Brunborg and Ytrehus, 2013). Bredland et al. (2011) claimed that people`s important values are related to their homes, close relatives, physical activities, friends, jobs, leisure activities, bodies and appearances, and spiritual and philosophical values.

The goal of all rehabilitation is that a person who is impaired by disease or failing health to be restored in health—not necessarily to the same level of functioning as before, but to a life worth living. This should happen with dignity and lead to participation in society at the same level as nondisabled persons. A person's values and autonomy are central in all rehabilitation activities. Professionals should interact and plan activities and rehabilitation tasks according to human rights and health care legislation. The rehabilitation process is more meaningful if anchored in values that are important to the patient.

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Method

Material: The material consisted of 121 examination reports of nursing students in clinical placement in HBNC in 2015. In the introductory week, all students provided written consent that the authors could use their exam papers for research purposes. The exam reports were registered by serial number from 1-121. Patient information in the examination reports included gender, age and decisions about HBNC, but was otherwise anonymous.

Data analysis: We reviewed all examination reports, and used both qualitative and quantitative research methods to interpret and analyse the data. We analysed quantitative data (e.g., age, gender and the patient's values) using elementary statistics: frequency, percentages, median and standard derivation.

For analysing qualitative data, we used a descriptive design inspired by Brinkman and Kvale (2014). Our main concern was to understand how the students planned and provided assistance to the patients' rehabilitation processes according to what was important to the patients. The researchers employed a thematic interview guide addressing the patient's rehabilitation values, resources and problems in the analysis. A hermeneutic approach was taken, involving an interpretive circular process of moving back and forth between the raw data in the examination reports and the interpretation (Polit and Beck, 2013). It was an ongoing process—starting with reading the examination reports and ending with identification and discussion of main themes. The process involved increasing levels of abstraction from the students' self-understanding of the patients' situation followed by a common-sense interpretation by the investigators and ending up with a theoretical discussion of main themes (Brinkmann and Kvale, 2014).

First, we investigated the text to recognize and get a deeper understanding of how the students understood and described the patients' areas of importance and values. Then, we

investigated the students' accounts of the patients' problems, resources to deal with the challenges and the proposed plans for action and rehabilitation. Each text was read several times in order to grasp the meaning of the material as a whole. In the second phase, we reread each text closely and broke it down into meaning units with the purpose of the study in mind. Then, the consistencies and divergences in the meaning units were studied and compared in order to detect similarities and differences among the students' expressions. Based on these descriptive analyses, the following categories have been extracted: social network and family, living in my own home, self-care for body and soul, job and leisure activities and rehabilitation plans. Verbatim quotes from the examination reports illustrate these categories. The first four categories include values. The category *rehabilitation plan* includes internal and external resources and limitations, and is on an activity and participation level.

Consensus between the investigators usually emerged for most of the interpretations. When any disagreement arose, the researchers reassessed the data and meaning in the reports, and brought this into new discussions. Through this repetitive process, a broader understanding emerged. In the third face, the findings were interpreted and discussed in the light of theories of rehabilitation in old age and nurses` contribution.

Ethics: Several teachers, including the researchers, guided the students in clinical practice, but the homecare nurses supervised the students in the cooperation with the patients. All students had agreed that their exam papers could be used for research purposes. No one retracted consent. The students delivered their reports electronically, and ensured that the reports did not contain any identifiable information: not about the students, the patients, or about the places where they had practiced. The exam office registered the assignments with the serial number so it was impossible for the researchers to identify the identity of the students. The students' experiences are reproduced in the study as truthfully as possible. The study's validity reflects whether or not this was successful. The study is not liable for the

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admitted regional ethical committee for medical and health professional research (e.g., Health Research Act, section 2 and 4 [application to REK South-East Norway 2014/2252]). The project has followed ethical guidelines for social sciences, humanities, law and theology.

Method criticism: The student presented their cases very differently, and their ability to express themselves in writing varied. It is therefore likely to assume that qualitative interview with students and patients would contribute with useful additional information.The students' opportunities to go in-depth on the patient's life situation were limited to two of the patients' problems or challenges. Hence, the students might have more information regarding patients' problems, resources and rehabilitation issues than those emerging in their reviews.

Results

Description of the students: Students (*n* = 121) in their second year of their bachelor education in nursing participated in the study. They had each selected one patient for rehabilitation, after advice from homecare nurses and their practical supervisor. All students had, in dialog with "their" patients, described the patients' different values and priorities for rehabilitation activities. The rehabilitation plan was developed, activated and evaluated during their eight weeks of clinical studies. This material (i.e., exam reports) was electronically mailed to the exam office in our college.

Description of the patients: The students' rehabilitation plans showed that they had acquired knowledge in rehabilitation and that they had formed good cooperative relationships with the patients. Patients with moderate to severe dementia were excluded from the project. The homecare team suggested which patients would benefit from professional aid to increase their functional levels.

This study included 56 males, 63 females, and two patients with no gender identification. Mean age of the patients considered was 78 (range: 17-97 years of age), and

71% of the population was over 80 years old. There was no significant difference in age between the sexes. The patients who were included suffered from different impairments after fractures, stroke, cancer, Parkinson's syndrome, psoriasis, multiple sclerosis, diabetes, prostate and various psychiatric disorders. Some patients were depressed and sad, and several were unable to engage in leisure activities on their own. Such losses had led to extensive consequences for them. Most of the patients had emphasised to the students that they were concerned they no longer would be able to stay in their homes and to participate in activities that were important to them. Cooperation with the students to achieve important goals was positively received.

Values: For the majority of patients, *relationship with close relatives* was scaled as the most important value. This value was followed by *home, physical activity, cooperation with friends, leisure activities, spiritual and philosophical needs, body and appearance,* and *job.*

Insert table 1 about here

In average, all patients had scaled the intensity of the value *close relatives* as nine of ten (on the scale from 0 [not important at all] to 10 [very important]). The importance of *home* (eight) and *physical activity* (eight) were also high for all patients. *Friends* (six), *leisure activities* (six) and *body and appearance* (five) were less important to them, while *spiritual/philosophical* values (three) and *job* (one) were relatively low in importance.

Insert table 2 about here

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Social network and family. Most patients had emphasized that being surrounded by close family members and friends were the most important resources and almost a prerequisite for a successful rehabilitation outcome. Having some people to “live with” and “live for” seemed to be the highest motivational factor for them. Especially important were close relatives and spouses. Spouses were described as everything from "my best friend” and “he is a part of myself” to “it is for her I perform the exercise program.” Students emphasized that some patients were busy working to improve their functioning so that they, in turn, could help their spouses—spouses they often described as more impaired than themselves. Still others wanted better functioning to continue a good life together with their spouses, children and grandchildren.

For singles and widowers, the most important goals were to participate in their children's development and to interact with siblings, nephews and nieces on a regular basis. Some patients emphasized losses and changes in roles in the family after illness and how they worked to resume their roles. For instance, one patient emphasized: “I have many high goals. I want to resume my role as housewife, but unfortunately, I am in lack of strength and energy to start the process on my own. I need help resuming cooking.”

For single patients, it was important to be with friends and to meet people on a regular basis—people that they often had known since they were young. Activities such as playing bridge, golfing, walking groups and visiting cafes together with friends were also described by students as important for the patients possibility for having fun and meaning in life. Several patients stressed that it was difficult for them to not be able to leave their houses in order to socialize with friends. Some were unable to climb the stairs, while others were insecure and afraid of falling. Such situations consequently made them sad and lonely.

Living in my own home: A key element for most of the patients was to stay in their own home. According to students' reports, it was a precondition for a life worth living and closely linked to the patients' identity. "The home" represented family stories and memories of family gatherings with parents, children and grandchildren. Some were born and raised in their homes and could not think of another place to live.

Another important element of living in a personal home was the freedom it represented. One patient had expressed his feelings in this way: "My home is a place where I can make my own decisions about when I want to get up in the morning, when I want to wash my house, when I want to go out into the garden, etc."

Self-care for body and soul: Although impairment had led to significant reductions in functional levels, most of the patients had adapted to the changes. Several of the students emphasized that patients could no longer perform all necessary ADL tasks on their own and that they were dependent on public assistance for both morning care and for moving around both in the apartment and outdoors.

The students' reports showed that for the patients, physical activity and exercising were the key elements in recovering important function after impairment. Some patients had explicitly described the joy of exercising and being physically active, but such statements were rare. Most patients knew, however, that exercising provided them with new opportunities that could bring them closer to what they wanted, whether it was to be able to stay in their homes, resume driving and the freedom that included, socializing with friends or carrying out hobbies.

According to students reports several patients stressed that they did not know how to start their recovery or how to seek assistance, while others stated they were lacking motivation. Some had even emphasized to the students that visits from home nurses were the

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only enlightening spots of the day. Such patients embraced the opportunities to perform rehabilitation activities with the students. A few patients had highlighted that it was annoying for them, not being able to contribute in the daily activities with nurses. One student described it in this way: “nurses are working too fast and independently; cooperation is not possible.” The student emphasized that such patients often ended up being helpless, passive spectators to their own declines in functioning. Hearing such complaints, some other patients had emphasized that such critical statements were unprecedented, and that patients themselves should take responsibility for their own health and rehabilitation activities.

Body appearance and looks were important to many patients. A student described a man’s expression as “to be refreshed and nice-looking and ready to face current challenges of the day is important for my wellbeing,” and a woman’s statement as “the mirror I encounter before I am going out is important for my self-esteem.” Most of them, however, did not explicitly explain what body and appearance meant to them; they only emphasized it as important.

Some students talked about spiritual issues. It was important for their patient to spend time with other believers in the church. Participation in spiritual encounters was a part of their patient’s identity. For instance, a woman expressed that she was anxious about not being able to breathe when she was at home on her own, and that she appreciated the security and the sense of coherence she felt when being together with people she knew in church.

Other patients reported that they assessed themselves as intellectuals. They enjoyed reading and discussing current religious and philosophical issues and themes with friends and health professionals. For some, such activities were described as necessary for coping and well-being.

Job and leisure activities: Most patients receiving HBNC were either unable to work or retired; hence, employment was not a very relevant area. Some patients, however, had reported that previous jobs that had turned into hobbies for them. A writer, for example, described difficulties with finishing a novel due to reduced function in an arm: “It’s like a love and hate relationship to me. I love to write, but this illness makes it impossible for me to complete the book.” Likewise, an artist explained that physical impairment had rendered her unable to paint anymore, but also that she had adapted to the limitations and was eager to try easier activities; to do that, however, she needed assistance and facilitation. She wanted to knit clothes for grandchildren, but impairment in one arm made it difficult.

Several patients had emphasized the importance of being able to participate in leisure activities such as singing in choir, playing bridge and golf, and to participate in hobbies and discussion groups. Such activities were important for their quality of life but demanded a certain level of physical strength, and need for health care support.

Rehabilitation plans. The patients receiving HBNC could no longer perform all tasks they had performed before their impairments, and the patients selected for rehabilitation assistance rarely had resolutions related to such tasks. Usually, they had agreements for services such as personal hygiene, mobility, medication and preparation of meals. At students’ request, however, they embraced proposals of cooperation in activity planning. The selected patients consented to the program and showed great interest in pursuing tasks that could bring them closer to what they wanted. Accordingly, the students interviewed the patients about what was important to them, scaled their values, problems and resources, and then—together—they designed goals they assessed as realistic and attainable and made rehabilitation plans. They also collaborated with multidisciplinary health professions, relatives and volunteers when relevant.

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Common rehabilitation tasks varied from making simple food to resume important roles as family matrons to practicing walking and climbing stairs in order to leave the house on their own in the longer term. One student described that, in cooperation with a patient, he had made a simple plan for gait training and use of a pedometer. The mileage covered encouraged the patient to engage in more activity. In another plan, the student and patient set a goal of participation in church on Sundays. The goal demanded joint activities from HBNC, patient, volunteers and deacons in church. The patient managed to reach his goal thanks to cooperation with the student. The students organized the activities and asked the nurses to support the patient in morning care and teach him how to transport himself from chair to wheelchair; volunteers helped him with transportation, and deacons helped with placement and activities in church.

In Table 3, there are several examples of rehabilitation plans with good results.

Please insert table 3 about here

These examples reveal that the students had acquired relevant knowledge and skills to be able to work independently on rehabilitation activities together with patients with coping challenges.

Some patients required complex and long-lasting services. The reports, however, revealed that some patients were too old and frail to exercise. Such patients experienced defeat and discouragement if they were forced to engage in an ambitious training program. Meanwhile, reports also indicated that some older patients tended to underestimate their physical abilities after impairment. Apparently, they only needed attention, motivation and confidence that someone was with them for encouragement and safety reasons in the start-up of an activity.

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Many exercising tasks worked out well for patients, even those who were fragile. Some patients needed rest days to prevent bodily overload, but most of the included patients became stronger and less wobbly, and they expressed to the students that they were "thrilled" when they finally managed to realize their own goals. The reports also revealed that employees in HBNC often were in short of time and unable to follow up on training activities when students finished their practice.

Discussion

The focus of this article has been nursing students' contributions to rehabilitation in HBNC. The aim of the study was to investigate whether students in such facilities were capable of assisting patients in making rehabilitation plans aligned with what were important values to the patients.

The students managed to work well with rehabilitation issues. They emphasized that they had gained knowledge in multidisciplinary cooperation and the importance of considering the patients' autonomy, motivation and values when planning rehabilitation activities. In this study, students spent time at the beginning of the relationship to chart the patients' values and wishes and determine what prevented the patients from managing the challenges on their own. They took the health policy guidelines on person-centeredness (McPherson and Siegert, 2007) seriously and conducted a detailed mapping of the patients' values, recourses and problems to fulfil the target. This mapping gave a clear indication of rehabilitation tasks that would bring the patients closer to their targets. It is an important part of people's dignity to see themselves as capable, resourceful and self-reliant in personal care and ADL tasks (Hansen, 2016; Macaden et al., 2017).

In partnership with interdisciplinary staff, students made targeted interventions that were carefully developed with, and acceptable to, the patients involved. In the literature,

there is considerable information about what works in rehabilitation (Cameron, 2010; Victor, 2016) and the rehabilitation programs designed in this study were in accordance with such qualifications.

Most patients in this study stressed that they hoped that they could continue to live with people who were the most important persons to them. Mutual respect and support from significant others is described in the literature as essential for motivation, and coping with mental and physical changes; it turns out to be essential for patients' recovery of lost functions and roles and establishing of new ones (Brunborg and Ytrehus, 2014). The results of this survey underline these claims, pointing out that the ability to maintain such good and healthy relationships with family and friends and to be with them regularly had a decisive effect on the patients' motivation and willingness to train with students.

Barry et al. (2017) have, in a literature review analysed the meaning of home among older women ageing in communities. The analysis revealed four attributes by the concept "home:" the home as a resource, a place where a person belong, a place that represents uncertainty as to whether it is possible to keep it, and a place with cultural expectations. The freedom of living and moving independently was highlighted by the students in this current study; to be able to live and stay in one's own home provided patients a strong sense of autonomy and cultural attachment. Many of the patients were afraid that they would become so frail and disabled that they would have to move from their homes. Moving to a nursing home meant loss of freedom; this fear motivated patients to exercise.

The aim of the patient in case II (Table 3) was to walk on her own to the store located 150 metres from her home, to visit friends and participate in social activities. These factors supported her motivation for physical activities (Victor, 2016). The ability to live as long as possible in one's own home and to receive rehabilitation assistance in order to achieve

important goals is in accordance with Who's program (2015) for preventive health care. In light of such concerns, the patients were more than happy to participate in the students' offer of services. Students discussed goals with patients and guided them in making small, attainable objectives. The students contributed with mental and physical support and ensured that the activities were safe, manageable and discussed with professionals. An individualized rehabilitation program—like the ones described in this study—may prevent a person to leave his home for a higher level of care.

Although several patients told the students that it was important for them to look good and feel comfortable, there was only one patient that scaled body and appearance as the most important value. Looking good seemed to be important for self-image and self-esteem. Feeling fresh and awake can act as a motivating force in itself (Brunborg and Ytrehus, 2014). In relation to this value, patients should receive necessary medical treatment and good morning care so that they feel fine and ready to embark before a training session.

Only one patient expressed that physical activity was an important value in itself, but that may be because over 70% of the patients in this study were more than 80 years old. It is well-documented that outdoor activities are decreasing around the age when health problems are also becoming more widespread. Some of the literature suggests that it is at this age that inequalities in functions are reduced, after increasing since early adulthood (Scherger, 2011). In this view, participation in mastering and rehabilitation programs is an important task to prevent further deterioration of functions (Hjelle, 2016).

Employment was not an important value in this study. Most of the patients had retired, but we saw that some of them—in particular, those retired from artistic work—had transformed their work into leisure activities. Engagement in leisure activities, intellectual pursuits and philosophical activities was important. Such interests might be a surplus

phenomenon, but nevertheless they are important sources for fun and enjoyment and key factors for motivation, goal-setting and targeting programs (Brunborg and Ytrehus, 2014).

There may be several reasons for the fact that relatively few students described spiritual and philosophical values. Such values may not have any relevance to patients' rehabilitation. It could, however, be that this category was not properly developed to advise and guide students in collecting relevant information.

It seems like this project has proved that students have the time, opportunity and skills to follow up with patients in rehabilitation activities over time. Likewise, the students seem capable of cooperating in and planning rehabilitation activities with multidisciplinary staff when appropriate. Home-based services have continuous access to students with such qualifications and should make better use of their expertise.

Some students did not have the opportunities to complete the rehabilitation plans within their studies, and asked employees in HBNC to follow up. With few exceptions, the employees emphasized they did not have resources to perform such activities. Often, the visits were only set for medication and body care. Claims like this are understandable when people have much to do, when time spent on each patient is defined in minutes, equally distributed on all weekdays, and when several care providers give services to the same user (Vabø, 2009). Frequent and short visits like this might be a patient's only enlightening point in the day. Such strategies impede the municipalities to reach the government's claims, which state that all people should get adequate assistance when they need it in order to live as long as possible in their homes (Romøren et al., 2011). Although students and staff can enable relatives and volunteers to do follow-up work, such statements point out that organizational models inspired by the new public management reforms from the 1990s are not suitable for rehabilitation purposes (Vabø, 2009).

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Study limitations.

First, we must emphasise that the findings in this study only relate to a limited number of students in a specific university college in Norway. Their clinical training took place in different districts, yet within one-municipality. In this study, students used Bredlands' (2011) model to identify patients' values. The results point out that some categories are not suitable for mapping values in older populations. It is possible that the categories revealed in this study, including "social network and family," "living in my own home," "self-care for body and soul" and "job and leisure activities," are better suited for capturing values among older adults. There is also an urgent need for a guide describing the characteristics of the different values in old age.

The analysis of the exam reports revealed that the students' ability to express themselves in writing varied. It is therefore likely to assume that qualitative interview with students and patients would contribute with useful additional information.

Conclusion

The study has shown that the introduction class and supervisions in clinical placement had prepared the students in making rehabilitation plans and activities with home-dwelling patients. The students were well-suited to work with patients and multidisciplinary staff to identify activities that would bring patients closer to their targets independently, whether it was on an activation or participation level. The results point out that spending time in establishing a good trusting, cooperative relationship where the patient's values, problems and resources are investigated is a good and efficient strategy in the long run. The results support previous research by stressing that rehabilitation activities should be based on the patients' values and resources.

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The study also revealed that rehabilitation activities are difficult to implement in daily practice in homecare when new public management inspires the organisation model. The results point to the need for flexible organizational models tailored to give patients the most intensive services in the beginning of a rehabilitation process and more flexible and limited services when the patients are doing better on their own.

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Table 1. The patients` prioritized values. N= 121*

Area of importance	Frequency (n)	Percent (%)
Home	33	27
Close relatives	44	36.1
Leisure activities	5	4.1
Physical activity	25	20.5
Friends	9	7.4
Body and appearance	1	0.8
Spiritual/philosophical needs	2	1.6
Job	1	0.8
Missing	1	0.8

* 1 is missing

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Table 2. Average power of the patients` values. N=121*

Area of importance	Number of patients (n)	Median (SD)
Close relatives	110	9.0 (1.67)
To live in their own home	108	8.0 (2.68)
Physical activity	111	8.0 (2.48)
Friends	109	6.0 (2.71)
Leisure activities	102	6.0 (2.56)
Body and appearance	105	5.0 (2.26)
Spiritual/philosophical needs	105	3.0 (2.52)
Job	89	0.0 (2.63)

*1 is missing

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Table 3. Example of rehabilitation plans

Example I	Widower, 84 years with paralysis and some language difficulties due to expressive aphasia.
Area of importance and goals	He was fond of his home and wanted to feel safe so that he still could stay there.
Resources	- some strength in affected side - able to move around indoor using a walker. - proposed goals he thought was realistic and achievable
Rehabilitation Plan	- facilitate home with hospital bed with electrical devices to handle the back section in order to make it easier to get out of it on his own/by OT - education and training in moving technic /by PT, N, SN - assistance in everyday training /by NS, N.
Results	After a few weeks with exercises, the patient managed to get up and performed his morning toilet independently even though he spent a lot of effort and time on the morning routine.
Example II	Widow, 93 years with breathing difficulties.
Area of importance and goals	Her aim was to manage the stairs, to walk on her own to the store located 150 meters from her home, and to visit friends/participate in social activities.
Resources	- physical activity/stay in good shape was important to her. - eager to exercise/fight limitations - hard to breath sufficient to manage the stairs, insecure and worried
Rehabilitation Plan	- ascending/descending stairs once a day /by N, SN and family - walking on her own in the flat, activity increasing from one to four times daily - exercise program once a week /SN - follow-up program when student clinical practice terminated /N
Results	After three weeks with assisted exercises, she went the required 32 steps up and down on her own.
Exsample III	Man, 72 years with Parkinson's syndrome.
Area of importance and goals	Prevent further decline in functioning. He wanted be able to get out in the backyard on his own.
Resources	- exercise was his main priority. - frail/unsecure, but eager to get assistance
Rehabilitation pan	- training inside with a walker/assisted by SN, N - strengthening exercises / PT - daily walking exercise with walker and health-workers available - attending exercise groups with other Parkinson victims once a week /PT - customizing new glasses with appropriate strength
Results	He became more independent in walking inside the house with walker, dressed himself and was highly motivated to continue the program.
Eksempel IV	Woman, 77 years with recent cerebral haemorrhage with subsequent paralysis of the left side.
Area of importance and goals	Physical activity, art and creative work gave her great joy and resuming such activities was her main goal.
Resources	- she loved physical training, art and knitting and was extremely motivated to exercise - adapted to limitations - changed goals according to limitations
Rehabilitation Plan	- assistance in ADL- activities, hygiene, dressing and toileting /NS, N and husband - increase rehabilitation in day centre from one to two days in order to exercise motor control in the affected arm /PT, N - obtain an activity chair that could help her to get more independent in morning routine and ADL activities /OT - exercising knitting with the left hand resting in her lap /OT, PT, SN
Results	She improved her motor function in the affected arm and resumed knitting activities after six months. The progress was much better than expected. She could reduce time spent in day center from twice to once a week and she became able to

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	participate in a knitting club once a week.
Example V	Widow, 80 years with fracture in five of her ribs, wounds on lower leg that required wound care.
Area of importance and goals	She wishes to be independent, to rejoin a senior center and a quire. Daily singing and dancing activities gave her life meaning and comfort.
Resources	- a lot of energy and motivation to change her life even though she was tired and exhausted
Rehabilitation Plan	- assistance in dressing/undressing and wound care /SN, N - exercise program she could perform on her own /guided with PT, SN, N
Results	She managed to join the senior center once a week, but was still unhappy with the results and wanted to exercise more in order to become more independent of care.

N = nurse, SN = nurse student, PT =physical therapist, OT = occupational therapist, MD = medical doctor, D = deacon, V = volunteer.

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Title of paper: Students contribution to rehabilitation for home-dwelling pateiens.

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Conflicts of interests: None

Statement of authorship: All authors meet the criteria for authorship. Both of us have approved the final article, and are listed as authors.

Statement of originality: The work is original and has not previously been published elsewhere, and is not in the process of being considered for publishing in another journal.

Statement of importance and/or novelty of the findings:

- Searches on relevant databases as Cinahl and PubMed has revealed that hardly any studies in the last ten years describe nursing students` contribution to rehabilitation of homebound elderly people.
- Nurse students are skilled in making rehabilitation plans and activities with home-dwelling patients.
- Home-based services should make better use of nursing students` expertise in rehabilitation work.
- Charting a patient's values, wishes, resources and challenges stimulates the patient for rehabilitation.

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