STUDENTARBEID

HOME EXAM

SK108: MEDICAL SURGICAL NURSING IN THE NORWEGIAN CONTEXT

TOPIC: INTEGRATION OF THE MUNICIPALITY IN THE REHABILITATION OF PERSONS WITH LOWER LIMB AMPUTATION

SK 08

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HØGSKULEN i SOGN OG FJORDANE

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INTRODUCTION

Rehabilitation is an interdisciplinary speciality that supports a dynamic process of helping an individual to achieve a life that is as independent and self-fulfilling in the physical, emotional, psychological, social or vocational areas of functioning (Dean-Baar,2009). One of the groups of patients who need rehabilitation is patients with lower limb amputation. Amputation is an acquired condition that results in the loss of a limb, usually from injury, disease, or surgery. A person who has one or both their limb amputated is referred to as an amputee (Mosby's Medical Dictionary, 2009)

According to Gitter et al (2005), Limb loss is one of the most physically and psychologically devastating events that can happen to a person. Not only doe's lower limb amputation cause major disfigurement, it renders people less mobile and at risk for loss of independence**.** Patient rehabilitation following lower limb amputation is therefore essential to provide optimum patient outcome (Dowling, 2008).

The author, who is a nurse from Zambia, had a six weeks nursing practice in the rehabilitation ward at the Forde Central Hospital in Norway. During this period, one of the common conditions being nursed on the rehabilitation ward was lower limb amputations. More men than women where admitted and the patients' age ranged between 55 and 70 years. After the amputation, the patients would stay on the rehabilitation ward for about a month depending on the response to the therapy and then be discharged home via the municipality(kommune) a situation very different from Zambia. The community in the Norwegian context means the local authority or municipality while in the Zambia context, the community literally refers to a group of people or a social body of people living in the same locality or physical environment.

In this essay, the author will look at the integration of the municipality in the rehabilitation of amputees in Norway. The main objective is to learn from Norway how best Zambia can improve on the existing rehabilitation services at the same time prepare for the future. The authors main interest is the challenges faced in the rehabilitation programmes in rural Zambia where we find the majority of the population. In looking at this, the author will progress by looking at amputation by describing and analysing the causes and its impact, give an overview of the health care system for both Norway and Zambia in relation to

rehabilitation of amputees in the municipality, look at the similarities and differences that exist between the two countries and finally look at the challenges that Zambia is facing with particular attention to rural areas and recommend how best Zambia can improve.

Amputation

The causes of amputation vary from country to country and that in developed/ industrialised countries, vascular complications of diabetes are the principle cause of amputation, which can be aggravated by use of tobacco (Esquenazi A, 2004). More men affected than women and is usually common in adults. In developing countries, trauma is the leading cause of the amputation caused by inadequate treated fractures, motor vehicle accidents (motorcycle and train) and other motorized machinery and that most victims are males. The large percentage of traumatic lower limb amputation occurs in the young, predominantly male, working population, (Perkins Z. et el 2011, Herbert J et al, 2006, Esquenaz 2004). Diabetic leadership forum Africa (2010) further state that diabetes is the leading cause of non-traumatic lower limb amputation in Africa and that about 12% of all diabetic patients have foot ulcers and amputation occurs in up to 7% of all hospitalised diabetic patient

In Norway as observed from Forde central hospital, the commonest causes of lower limb amputation include smoking and diabetes. According to Anderson J (2012), Cigarette smoking is known to increase the risk of diabetes and peripheral arterial disease (PAD), and it also delays surgical healing in both elective and emergent diabetic foot surgery. Diabetes complications such as diabetic foot are another common contributor to lower limb amputation in Norway though the incidence had decreased in some part of Norway such as Trondheim due to improved foot care (Witsø E. 2010). Most patients admitted to the rehabilitation ward were more men than women with amputations. This could be as a result of increased risks of smoking earlier in these people's lives. The no smoking company and improvement in diabetic care could have a positive impact on the number of amputations in Norway in the near future.

Studies done in Zambia by Murdoch in 1984 and that of Lungu in 2006 confirm that Trauma and diabetes related causes are the leading causes of amputation in Zambia. Almost 50% of all causes of amputations (trauma and diabetes related) were potentially preventable; while 57.1% of all trauma was due to road traffic accidents (RTA) and more males than females had either one or both legs amputated, (Lungu, 2006). This means that the risk of loss of work productivity and earning potential following lower limb amputation is of great concern from an individual and society point of view. This is worrying for the future of Zambia especially with the increase in the prevalence rate for diabetes currently at 3.4% in 2010 (International Diabetes Federation, 2010).

Loss of a limb produces a permanent disability that can impact a patient's self-image, self-care, and mobility. It is almost always associated with pain. Loss of a limb by any individual, especially in developing countries (like Zambia) where the most affested are men, usually young and there is no established system to support people with daisabilities. Community resources and skilled professionals are also unavailable to offer the rehabilitaion services in the community. Prosthestic services are either unavailable or too expensive to afford. This can be associated with very severe physical and emotional problems as this foreshadows a dismal existence **(**Essoh et al, 2007**).** Incases where the amputee is working, this may mean change in occupation through training of other skills.

Operation of the health care systems

Norway is one of the countries in northern Europe. The country is divided into regions, counties and the municipalities. The Norwegian health system is fairly systematically organised within each of its two sectors- primary health and long term care; and hospital and specialist services (Romóren et el, 2011). The hospital sector is only responsible for the specialist care services. Primary health care and long term care are provided under the responsibility of Norway's municipalities/commune. These municipalities are responsible for public health nursing, running nursing homes and home care, rehabilitation, physiotherapy among other services. Each individual has a right to health care services despite his/her status and the right to choose their own general practitioner. The health care and social care services are well established such that every citizen has access to care and

health services including rehabilitation programmes (Norwegian directorate of health, 2009; Romóren et el 2008.)

Zambia is one of the developing countries in the sub-Sahara Africa with a population of 13, 046, 508 persons in 2010 and 61% of this population reside in rural areas (CSO, 2010).

The Health systems in Zambia are classified into three major categories as follows:

1. First Level comprising of Health Posts, Rural Health Centre and District Hospitals, where primary health care and preventive health services are provided.
2. Second Level comprising the provincial and general hospitals, which provide the curative care
3. Tertiary level comprising Central hospital and the National University teaching Hospital. Provide specialized care.

All the three levels perform amputation procedures. However, the district hospital is only allowed to perfume uncomplicated major amputations. Primary health care and community based programmes are under the management of the district medical office at the district level. The local government/ District or municipal councils though participates in health service delivery, they have no authority or major role over the running of the health services within the districts in Zambia.

Rehabilitation of the amputees

Rehabilitation is provided along a continuum of care ranging from hospital care to rehabilitation in the community. It can improve health outcomes, reduce costs by shortening hospital stays, reduce disability and improve quality of life of an amputee. It involves identification of a person's problems and needs, relating the problems to relevant factors of the person and the environment, defining rehabilitation goals, planning and implementing the measures, and assessing the effects of the rehabilitation process (Dean-Baar, 2009) The rehabilitation of the patients with lower limb amputation can be done at different levels such as inpatient, at out patient department and at the community level.

The discharge process is essential in understanding how amputees re-enter the community after an amputation. Norway's ministry of health has emphasised on early discharge from the hospital into the community and a system of agreement exists between the hospital and the nearby community throughout the whole country. This agreement is aimed at reducing

unnecessary admission, reducing waiting time before hospital discharge and to make transition from the hospital to home as efficient and safe as possible for patients.
According to Nelson (2012), the patients stay in the ward after rehabilitation is dependent on the patient's response to the in-patient rehabilitation process. According to my observation, every week a multidisciplinary team consisting of the medical doctor, nurse, social worker and physiotherapists would have a meeting to discuss on each individual patient. An assessment of the patient would be made, formulate goals with the patient and family, implement and evaluated. When the team is satisfied about the patient state of health, a discharge date is proposed and the patient, relatives and the community is informed. Prior to the date of discharge, the patient, the relative and the employer (in case of those in formal employments) have to meet and discuss with the health care team. I was privileged to be part of a similar meeting during my practical placement. The municipality would be contacted to find out if they are ready to receive this patient back into the community or not. If not, a certain amount of money/ penalty fee has to be paid to the hospital each day that the patient spends at the hospital from the proposed date of discharge for not immediately receiving patients ready for discharge (Romoren T. et el 2011; Nelson, 2012).

In Zambia when the patient is discharged from hospital after the amputation, they are discharged via the physiotherapy department which in some hospitals does not exist. In bigger hospitals where the physiotherapy department exists, patients have to attend the outpatient rehabilitation programme. This is a challenge in that, there may be difficulties travelling to and from the rehabilitation centre/ hospital. These patients may even lack social and financial support. Only a few who have the means in terms of transport can access these services. For patients who come from very far places, this becomes very difficult and may decide to shun away the service because they cannot afford. For patients coming from the rural areas of Zambia, they need to relay of family and community members for rehabilitation.

Rehabilitation of patients with a lower limb amputation in the community is usually done under the community based rehabilitation programme called Community based rehabilitation (CBR). CBR is a strategy within community development for the

rehabilitation, equalization of opportunities, poverty reduction and social integration of people with disabilities. CBR is implemented through the combined efforts of disabled people themselves, their families and communities and the appropriate health, education vocational and social services (ILO, UNESCO, WHO, 2004). The Zambian Ministry of health and ministry of local government and social welfare are the ministries meant to be in charge of CBR. However these ministries are facing so many challenges and according to my observation, this has led to poor coordination of CBR programmes and has led to CBR to be more of a stand-alone programme than part of the services in these two ministries.

The rehabilitation process

As mentioned earlier, In Norway, the municipality is responsible for ensuring that the amputee goes through the rehabilitation process successful after an amputation and subsequent discharge from the hospital. According to Nelson SB (2012), the municipality assesses the safety of the home and ensure that the environment is safe for the amputee, assess the economic status of the family through the social workers and ensure that the environment, the social welfare and economic status of the patient and family are sufficient enough to facilitate and enhance rehabilitation process. It has to help arrange for the equipment that the amputee will need at home such as wheel chairs, lifters etc. according to Nelson (2012), the rehabilitation team within the municipality include a nurse and the physiotherapist. The role of the nursing staff includes providing orientation to the amputation rehabilitation program and carrying out treatments and procedures associated with the management of pain, surgical wound care, stump-wrapping, skin management, safety and infection control practices and also works as a liaison between the patient and family and the rehabilitation care team. The physiotherapist has the role to exercise the patients and ensure the correct postures, skill are obtained especially in the use of gadgets such as prosthesis, crutches etc.; shaping of the residual limb, skin desensitization techniques, skin assessment, care and pressure relief. The occupational therapist may be available if need be to

The health care services in Zambia are not standardised across the nation. This has made the less privileged not to access the standard rehabilitation services while the rich are able to have rehabilitation programmes which are well organised and supervised by the

qualified practitioners. The skilled professionals do not exist in the rural areas of Zambia and it forfeits the multi-disciplinary team approach concept of rehabilitation.

Amputees in the rural areas only have family as part of the rehabilitation team and they have to depend on the information given to them before discharge because no follow up is done. And because of lack of social welfare services, the rehabilitation programme may further make the lives of people around more difficult because the women and girls may need to stay home to care for the amputee. This causes strain both physically and financially. Some measures taken at the local level to help the amputee attain some form of independence by people who are not specialised and in most cases have not attained any education and training dispose the amputee to further complication. For example, when it comes to pain management, there is reliance on over the counter drugs which may even be expired.

Mobility too is a challenge, some forms of walking aids and appliances have to be provided such as locally made crutches. These may not be of the correct length/ height for the patient leading to poorly attended postures and development of wrong skills in the name of appropriate technology at the expense of the patient's life. Hopping with use of crutches just after surgery and or unsupervised can lead to swelling of the stump and falls

Lungu conducted a study in 2006 which revealed that many amputees could not afford prosthesis in Zambia. All amputees where called to register themselves in the 3 facilities that offer prosthesis services to be assessed and given a free prosthesis. Results from this study shows that only those along the line of rail/ urban areas managed to get to one of the camps and 73% beneficiaries and the others had unsuitable stumps for prosthetic fitting at the time of the exercise. To my own observation, this has contributed to the poverty levels in that, usually it's the young men who are affected, these young men are supposed to be bread winners in most families in the Zambia culture. Because of inadequate rehabilitation services, the amputees have to spend most of their time home further reducing the productivity capacity.

Benefits of integrating the municipality

To the patient- the patient can live at home and receive rehabilitation services from visiting professionals and are able to learn and practice the skills in the same environment where

they will live though in cases where there is no supervision, wrong skills may be learnt. There is also family involvement which is an important factor in the rehabilitation process. A supportive, understanding family can make all the difference in the hard work of rehabilitation. They learn how best to help patients manage medicines, care for wounds, assist with activities of daily living and safely use of devices such as wheel chairs and prosthesis. However, this is challenging for Norwegian families which are often small and in most cases, both men and women are almost always in employment, spending most hours away from home (Linnsud et el, 2005). This could mean that that the integration of the community is more than necessary in helping these amputees gain some independence through acquisition of correct skills, carrying out of activities of daily living and planning for a safe accessible environment (Johnson R. W, 2011).

Rehabilitation will also be provided using a team/ multidisciplinary approach. The team comprises different types of team members and membership depends on the clients' condition and set up. It also allows the rehabilitation specialists to assess patient's functional goals and adjust intervention s to achieve maximum independence and function (Zhou et el, 2011). This ensures that the patient receives the best of care that is needed. This may not be so in the community based rehabilitation programmes in rural areas of Zambia. For the health professionals, there is no much congestion in hospitals as a result of prolonged stay; therefore there is also individualized care for those who are admitted. The government also benefits in that there is decentralization of power. This ensures that everyone is responsible for their duties and it also helps in evaluating the community projects. There is satisfaction that every citizen is taken care of and benefits from the health policies for the country as is the case for Norway though it gives pressure to nursing homes and home care sector (Romáren, 2011). Integration of the commune also promotes coordination between the policy making body and the local authorities in the health care and service sector

Differences and similarities

Norway and Zambia have different economic status, different health care service and social welfare services. To begin with the causes of the amputation, the age groups, and the

discharge process differ. In Norway, before the patient is discharged, the community has to be ready to receive them. When it comes to age, more elderly people are seen while in Zambia, mostly it's the young people, this difference in the age group would mean different concerns and different needs and this may affect the outcome. The conditions also vary and for Norway, a lot is being done to help control the diseases that would lead to amputation such as the stop smoking campaign and diabetic foot care programmes in some parts of the country. In Zambia, more attention has been directed towards control of infectious diseases such as tuberculosis and HIV/AIDS. This may mean that the country may have more amputations in the near future as a result of diabetes and other vascular diseases which are on the increase and no much attention is being paid towards the control.

In Norway, rehabilitation programmes in the municipality is a team approach and an extension of the formal health and social services. There is funding to ensure successful provision of the services in the patients' homes and /or in the nursing homes. In Zambia, CBR is more of a stand-alone programme and lacks qualified personnel. Family and the local people within the community have to use more of their resources in the rehabilitation of the patient. The similarities that exist include: availability of policies on community integration in both countries exist and they both believe in early discharge from the health facility. The family as part of the rehabilitation team is present in both countries.

Challenges faced by Zambia in rehabilitation of the amputee

Generally, Zambia's care system is facing so many challenges in the health sector; some of which are:

1. The existing communicable diseases such as an increase in non-communicable diseases such as impaired glucose levels/diabetes and overweight/obesity, an increased rate in tobacco smoking and alcohol consumption; an increase in patients with Hypertension, and hypercholesterolemia. A long history of road traffic accidents with trauma (accidents, injuries, wounds, burns) as the fourth leading cause of morbidity. Zambia is also facing a rapid increase in tobacco smoking rates of likely greater than 30% for men with an increase in tobacco related diseases.

2. Persistent inadequate availability of skilled health professionals and this has led to low access to health services in all communities and facilities and also because of this most of the facilities are operating below capacity
3. The health care financing is dependent on donor funding and the financing according to WHO (2009) is below acceptable levels for programme implementation and mainly earmarked for a few programme areas

Challenges in the rehabilitation process in rural areas

Physical access to functional health centres which offer outpatient rehabilitation services is poor in rural areas because the roads may not be passable especially in rain season and may not been within the 12km radius. This would mean that amputees may only seek medical attention when a complication has already occurred. This is a challenge because they may end up with an infection which may require a re-amputation and there is a greater chance of having the other limb amputated in cases of diabetes.

1. Non availability of community resources to empower the amputees.
2. Lack of finances to purchase assistive devices in another challenge for amputees is in rural areas. Lack of finances further deprives them to access facilities/organisations offering free devices e.g. like what happened in 2006 where only those in urban areas benefited (Lungu, 2006). This limits their mobility and performance to gain independence

CONCLUSION

Rehabilitation programmes after a lower limb amputations are meant to be a multidisciplinary team approach because LLA causes multiple physical, psychological, environmental and socioeconomic barriers. However, team approach does not exist in Zambia because of its social and economic status. However, Zambia can still learn from Norway on how best to integrate the municipality in rehabilitation of the amputees. This can be through integration and improvement of already existing programmes especially for those in rural areas where the family is

expected to care for these patients and ensure social integration and economic self-sufficiency. Addressing all the factors that cause diseases and traumas ending into an amputation should by all means be promoted so as to reduce the expected increase of amputees which the country is already failing to manage

RECOMMENDATIONS FOR ZAMBIA

1. There is need to empower the health professionals with knowledge of diabetes in terms of early diagnosis and management; and information on foot care. The health care team has the responsibility to educate the families and communities at every contact /whenever opportunity avails itself on good health practices including diets, hygiene and the importance of seeking care as soon as possible.

   This will help in early recognitions of the disease and treatment. Care of diabetic foot disease needs to be improved to prevent future amputations.
2. Provision of basic rehabilitation services at every health facility. Since Zambia has embarked on a project of putting up infrastructure for health services as close to the communities as possible, the government through the ministry of health should consider put rehabilitation services in these health institutions. This will probably help the patients to benefit from the outpatient rehabilitation services
3. Training: Since the nurse is almost always in contact with patients as primary care givers, there is need to provide basic rehabilitation skills to the nurses in their training. There is need to include information on rehabilitation in the community health workers training package so that they can be able to educate, guide and supervise the amputees within their catchment areas.
4. Information, education and communication: The nurses' role of an educator should be intensified so as to offer IEC to the patients, their families and the community at large on rehabilitation programme such as wound/stump care, exercises, balancing and mobility.
5. There is need to strengthen the already existing outreach services e.g. mobile Antiretroviral therapy (ART) clinic and maternal and child health services (MCH) and integrate rehabilitation programmes
6. There's is need to strengthen the collaboration of other private and government sectors to support rehabilitation programmes within the districts and municipalities.

For example, Ministry of local government and social welfare and other Non-governmental organisations such as PLAN and World Vision etc.

7. The local communities should also be empowered with knowledge on how to establish income generating activities, how to make standard crutches and anything else that they can use to help mobilising the amputees within their communities.

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