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TABLE OF CONTENTS

Table of content.....i

Introduction.....1

Statement of the Problem.....2

Brief Description.....3

Analysis.....4

Conclusion9

Recommendations.....10

References.....11

INTRODUCTION

Rehabilitation is known to be the best way in which patients with stroke disabilities can be helped to obtain their possible pre morbid state. The World Health Organisation (WHO, 2003) in Helsinki Finland recommended the development of guidelines on community - based rehabilitation for people with disabilities. Following WHO's recommendations, it is necessary to look into ways that would best integrate the family in the rehabilitation process of patients with hemiparesis due to stroke.

Having had work experience for seven years in a medical ward in a Zambian hospital, the author had a six weeks placement in an in-patient neurologic ward at a central hospital of Norway following an exchange program between the Norwegian and Zambian governments. Hence the scope of this work discusses rehabilitation of adult patients with hemiparesis and neglect due to stroke in Norway and Zambia, with special emphasis on family involvement, it will also highlight the similarities, differences and challenges in both settings as experienced by the author.

Neglect refers to inattention to a part of the body, with contra-lateral to the brain lesion (Cummings, 1995; Cummings and Mega, 2003). Hemiparesis is defined as muscle weakness of the arm, leg, and trunk on the same side of the body (Vega J, 2008). It is caused by cerebrovascular accident commonly referred to as stroke. Stroke is a term used to describe neurological changes caused by an interruption in blood supply to a part of the brain (Bowman, 2009). It usually results in a number of movement disorders, depending largely on the location and severity of the lesion.

Rehabilitation refers to therapeutic healing treatment a patient receives after an illness or injury. Stroke rehabilitation is hence the process by which survivors of stroke attack receive therapeutic support and care from health care team with the aim of regaining as much body functions as possible, lost after a stroke (Vega J, 2009). Stroke is untreatable but rehabilitation can help the survivors to cope with their situation. Effective rehabilitation of stroke needs a multidisciplinary approach by a health care team. Based on the economic and cultural difference of the two countries, the essay sort to explore the following questions;

What can we learn from the two countries in terms of family involvement in rehabilitation of patients with hemiparesis and neglect due to stroke? How can the

patient's family be in-cooperated in the rehabilitation process? What factors affect family involvement in the rehabilitation process?

STATEMENT OF THE PROBLEM

The incidence of stroke in developing countries was rising as the populations underwent what has been referred to as the "health transition." At present, the major health burdens in Sub-Saharan Africa are infectious diseases, including HIV/AIDS, and diseases related to poverty and malnutrition. However, urbanisation was predicted to increase the risk factors for vascular disease and hence lead to an increase in stroke, such as was found in developed countries (Wasserman S, et al, 2009). Hence stroke was becoming a common condition in Zambia. Stroke prevalence in South Africa as revealed by SASPI project team (2004) in their study was at 300/100 000 people. This is similar with that of Zambia.

Stroke remains a major public health concern in developed nations. A study carried out by Ellekjear H and Selmer R (2007) in Norway revealed that 11, 000 stroke cases were expected annually. In Norway again, cardiovascular disease accounted for mortality rate of 34% in 2008 and this included stroke (Norwegian Institute of Public Health, 2010). And an analysis carried out in northern Sweden by Rathore, S (2002) reveals that paresis accounted for 48.9% of the event of stroke. Similar findings would be found in Norway.

Predominantly, hemiparesis occurs among people aged over 65 years, but can also occur in significantly younger population. This group of patients often do not fit into the standard rehabilitation services, since their medical need may differ significantly. Special challenges are encountered in the upbringing of these young children whose prognosis and social needs may vary significantly (Royal College of Physicians 2004).

Effective rehabilitation needs a multidisciplinary approach, by a health care team which include among others physician, physiotherapist, occupational therapist and most significantly the nurse. Hence, it is anticipated that integrating the family in the rehabilitation process will not only offer the much needed moral support to the patient

but will also help alleviate the strain on the already tight schedules of nurses and other health workers in both Norway and Zambia.

BRIEF DISCRPTION

Different types of families are in existence, and their specific functions and meaning is subject to their relationship to other social institution. The nuclear family is a family system common in Europe (Norway) and refers to the conjugal families with members relatively independent of kindred. However the term extended family is commonly observed in Africa (Zambia and other developing countries) it is refers to as kindred. People living together as extended family feel greater security and this is of immense benefit since it contains more people who serve as resources during crisis and provide more role model for behaviour of values (Pillitteri and Adele, 2009). Applying the above principle to studies conducted in the rehabilitation of patients with disabilities of hemiparesis, one could observe some shortcomings in the health care systems in both countries.

The author observed disparity of family involvement in the rehabilitation care of patients between the two countries; where in Norway, the family played a less active role in the rehabilitation of the patient when in hospital as compared to Zambia where the family was the core player.

In Norway, the majority of the patients admitted to the ward were elderly, and the commonest condition that was nursed there, was stroke. Therefore, disability of hemiparesis and neglect was an expected phenomenon in the ward. The nursing practice in the ward primarily ensured that a nurse was responsible for one, two or maximum three patients depending on the staff strength and the number of patients in the ward. This is known as primary nursing (Neisner J and Raymond B, 2002).The advantage of this type of nursing is that the physical and psychological needs of the patients which range from addressing problems relating to difficulty with gait to those with balance while standing or walking are met. They also receive help with overcoming difficulty with motor activities like holding, grasping or pinching, reducing stiffness of muscles and muscle spasms. Behavioural problems like anxiety, anger, irritability, lack of comprehension and emotional depression are also addressed.

However there was absence or insignificant participation of patient's relatives in the actual rehabilitation of patients during the hospital stay. Most often the nurses practically did everything from maintaining good lying positioning, bathing of patients, medication, to shaving of such individuals with hemiparesis.

A contrast exist in Zambia, the type of nursing care delivery system is the functional type which is duty oriented (Neisner J and Raymond B, 2002). This is particularly believed to be appropriate for a resource strained nation like Zambia. Its disadvantages are that most of the patient's needs are not met. But with the help of patient's family members basic nursing duties are achieved. Rehabilitation in a resource strained nation like Zambia is a challenge due to lack of infrastructures, moreover even when present such equipment are old, dilapidated or obsolete. However the most challenging problem is that of inadequate staffing.

In Norway, the health and social system make provision for the rehabilitation of patients; this is not the case in Zambia where patient's relatives are responsible for all rehabilitation process ranging from financial support to basic care even after discharge.

Due to overwhelming cases of communicable diseases and AIDS pandemic experienced in the country, less attention is paid to other health conditions like hemiparesis. The government's main stream of focus is on AIDS and infectious disease management, maternal and child health care in accordance with the millennium development goals (Zambia Ministry of health, 2005). In Zambia, stroke and related hemiparesis, is considered a family illness and rehabilitation effort by medical personnel are targeted mostly towards stabilizing the medical condition. It also includes providing relatives of patients with vital information needed to help them live through the long term practical emotional, social and financial difficulties encountered in coping with the residual impact of hemiparesis (Eldred C and Cykes C, 2008). Rare cases exist where patients receive help from a multidisciplinary team and only when the individual involved was exceptionally wealthy and could pay for services of privately arranged rehabilitators outside the circular health system.

ANAYSIS

The declaration of 1990s as the decade of the brain, by the National Institute of Health opened a new trend in the development of neuroscience and clinical rehabilitation

research. This enhanced the process of neuro rehabilitation, whose knowledge and application has led to understanding that optimizing functional recovery from stroke is contingent on relatively intense and challenge, targeting motor and cognitive relearning of function skill (Langhammer and Stanghelle, 2000).

Since the scope of this work is on the role of family in rehabilitation of hemiparesis in patients with stroke, much emphasis will not be on diagnosis and treatment. However the early identification and correction of the causative factor is core to rehabilitation of the disabilities it may cause. Accurate examination, diagnosing, establishment and subsequent treatment of the causative factor which may be an emboli, thrombus or haemorrhage in the brain as earlier explained, are necessary preliminary process undertaken prior to rehabilitation. The diagnosis should be reviewed by an experienced clinician and emphasis should be concentrated on underlying cardiovascular causes. Corrective measures applied depend on the part of the brain affected, the size of the infarction, and when the symptoms started. The treatment applied may range from surgical to medical interventions depending on the cause. Effort should also be made to identify and treat the predisposing factors, like diabetes mellitus, cardiovascular disease, high blood cholesterol levels, hypertension and arterial fibrillation, which otherwise would increase the chances of complication.

Rehabilitation begins as soon as the medical condition of the patient has stabilized. It ranges from making passive exercise like turning in bed, limb movement to active exercise where the patient is able to perform the exercise on his/her own. In Norway, the author observed that such tasks were actually carried out by nurses working in the neuro-wards. The author believes that this would have been made more successful if families and the rehabilitation team work together as a team. This is necessary because a person recovering from hemiparesis needs encouragement and support from the family. Family involvement starts with regular visits to the hospital where such a person is undergoing intensive care and preliminary rehabilitation and such visits boost morale of the patients. Specific support and encouragement can be by spending quality time with the patient and joining in a number of activities or by simply keeping them company.

In Zambia, more challenges are faced by patients and their relatives after discharge from hospitals. This is because as stated earlier, hemiparesis is considered a family illness and the role of medical personnel is the initial process of stabilization of patient's

condition. Additionally, it involves educating and providing the family with vital information needed to help them live through the long term practical emotional, social and financial difficulties encountered in coping with the residual impact of hemiparesis. Therefore the issue of physical therapy, occupational therapy, and other rehabilitation programs are left for the family to cope with.

How can the patient's relative be in-cooperated in the rehabilitation process? How can the nurses help the family in the rehabilitation of the patient?

Physical therapy

It is necessary for the nurses to work with the family in the rehabilitation process so as to teach them on what is required of them. The family can only learn some simple procedures and techniques by working with the nurses during the hospitalisation of the patient which will in turn be useful after discharge. When attending to the patient with hemiparesis, it is essential to work on the affected side. This assists in making sure that the affected side is involved in the exercise and that the patient may not neglect it.

The target or main focus of physical therapy is to strengthen muscles and improve gait, by passive and active exercises of the part affected. It is also applied to loosen muscles and joints that had become stiff due to stroke. This was achieved through continued exercises and tasks which strengthen the muscle groups. Such exercises include limb movement. This was done with the help of nurses or patient's relatives. However, it was vital for nurses to assess the disability of the patient and know how much help the patient needs for self care. This promotes independence and self esteem.

In addressing problems which were related to difficulty with gait and balance while standing and walking, it was necessary to encourage and support the patient to apply passive and active exercises to the affected limbs and body parts. This helped to loosen and strengthen muscles and joints that had become stiff due to hemiparesis. In some cases, it was necessary to use elements like braces which would be applied to the limbs to prevent the foot from dragging and knees from buckling and improves the patient's ability to move around (Leung J and Moseley, A 2003). This was often observed in Norway and rarely in Zambia because these braces were not readily available.

Good positioning of the stroke patients is recommended at all times. Family members involved in the rehabilitation process can help with the positioning of the patient. They

should be taught on how to position the patient so as to avoid pressure on the bone prominences and relax the muscles especially on the joints.

It is important for the family to identify and understand factors that may affect the patient's level of physical exercise. These include (Roth E, et al, 1998);

- The level of body impairments after stroke
- Patient's motivation and mood
- Stability of the patient's medical condition
- Severity of pre-existing and acquired medical co - morbidity
- Effects of some type of treatment.

The family member involved in the rehabilitation should observe safety of self and other at all times when assisting the patient. This can be by working with good body alignment, for example, the bed should not be too high or too low when attending to the patient.

It is vital that family members are encouraged to attend rehabilitation sessions and instructions. This helps the family members learn how best to rehabilitate their affected relatives. It equally offers them additional meetings with health care providers and creates room for them to ask questions and find out about patient's progress.

Occupational Therapy

This embraces the teaching of different skills that help the patient lead as normal life as possible. It helps the patient perform daily activities such as dressing up, with the help of tricks, specially designed gadgets and devices. Since rehabilitation is about getting back to normal life and living a life as independent as possible, this can mean helping the survivors of stroke acquire new skills or relearn the old ones. It also involves helping stroke survivors adapting to limitations caused by the stroke (National Institute of Neurological disorders and stroke 2010).

For a comprehensive result in rehabilitation, individualised care should be applied, since a tiny timely change in an individual's environment can greatly increase independence.

People with hemiparesis may have trouble with many activities that were done with ease before, such as; walking, talking, bathing, eating, dressing, using the toilet as well as more complex tasks like housekeeping, driving and using the telephone. Family members or relatives should help victims of hemiparesis practice skill learned in rehabilitation. It is important to find out what he or she can do alone, what he or she can do with help, what he or she can't do at all. In doing this, family should avoid doing things which patient can do on their own. This is necessary since his or her confidence will grow with every task accomplished without help.

The acquisition of special gadgets may fall under the responsibilities of the family especially in the Zambian set up, where there is neither health insurance nor social security in place to handle these forms of ill luck. Therefore, there may be need for the procurement of wheelchair, walking stick as part of the external support. Other related equipment like stair lifts, hoist, perching stools or special adaptations to buildings may be a necessity.

A significant challenge is encountered by families in the rehabilitation of young people with hemiparesis. This is evident in the fact that such individuals require special education and training to cope with the ever challenging obstacles of a constantly changing world (Lindstrom B, et al, 2009). Therefore, families should be adequately prepared to fully support a young stroke victim since a significant number of them fall victim of severe depression and are filled with a high sense of rejection by friends and old play group.

What factors affect family involvement in the rehabilitation process?

The following are some of the factors that affect family involvement in the rehabilitation processes;

From practical experience, the author was able to establish that in Zambia and Norway, the family involvement in the rehabilitation process, on a large extent depended on cultural values and beliefs of the family. In Zambia, a school of thought believes that stroke is caused by witchcraft while others attribute it to angry spirits. In this context it is seen as punishment from the realm of spirits not pleased with the person affected (Taylor, 2006). With these kinds of belief, the family often seek help from the traditional healers or the spiritualist. This makes it difficult for the family to fully

embrace the role of rehabilitation since they would not believe in the western or modern type of medicine. Some families may tend to give up with helping such a person who was not in good terms with the spirit.

The author also observed that economic structure and cultural values of a society affect the family's participation in the rehabilitation process. This has a more significant impact in Norway than it is in Zambia. In Norway a significant percentage of the population are committed to work, making it difficult to have time to be with their loved ones and fully participate in the rehabilitation process. The treatment times may collide with the family's working schedule, thereby making it even more difficult for family participation.

The author also observed that the literacy level of the Zambian population has a significant impact on the overall result. Although the patient's family was more involved in the rehabilitation of the patients, lack of adequate knowledge of the rehabilitation task and duties resulted in poor rehabilitation results. The opposite was the case for Norway, where almost all the duties were carried out by the nurse.

Another factor that may affect family participation in rehabilitation among others includes inadequate motivation. An average Zambian family believe that the condition in question is not curable; hence, people often view it as a condition leading to death. Therefore, little emphasis is placed on rehabilitation of such patients and these often result in death within a few months or years.

Similarities, differences and challenges

In both countries, health care workers try to involve the family in the rehabilitation process of the patient. The difference observed by the author is that the family in Zambia was physically participating in the rehabilitation process as compared to Norway where the family was rarely involved in the actual care. The challenge faced by Zambia is that of lack of resources. As for Norway, the challenge faced by the family in the involvement of rehabilitation is that of lack of time due to commitment to work.

CONCLUSION

During the whole experience of practice in Norway, the author learnt that family involvement in rehabilitation of hemiparesis and neglect plays a vital role in the

recovery system as a whole. Family involvement reassures the patient and quickens the recovery system. The nurses also play a vital role in this process; they provide the family with the relevant information and training on the basic procedures. The best way to involve the family is to integrate patient relatives in all decision and rehabilitation practices that involve the patient.

RECOMMENDATION

It is recommended that the Norwegian family should be firmly integrated in the rehabilitation of stroke patients since this provides psychological comfort and quickens recovery. This can be achieved by working out a rehabilitation schedule which fully involves the patient's family taking into consideration their work schedule. It would be helpful for the nurses to involve the family members in the care of the patient when they are available. This will motivate them and increase their knowledge on rehabilitation.

The following are the recommendations for Zambia;

- There's need to improve on the training of nursing personnel in the rehabilitation process as a whole, because the nurse is an advocate of care of the patient.
- Since the rehabilitation process is usually left for the family to handle, it is necessary to establish a good ground for this. This can be achieved by providing centres where adequate information and training can be given to patients' relatives by trained health personnel.
- The patient's relatives should be adequately informed that hemiparesis has no link to witchcraft or angry spirits. This will go a long way towards encouraging them to actively participate in rehabilitation of the patients rather than seeking spiritual help.

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