

Health Risk Behaviours of Stroke Patients in the Western Cape, South Africa

ABSTRACT: *Stroke is a leading cause of death and a major cause of disability globally. Individuals with physical disabilities, including those who have suffered a stroke are at risk of secondary complications due to the impact of their disability, which may be exacerbated by their lifestyle choices. The aim of the present study was to determine the health risk behaviours and factors that influence these behaviours of stroke patients in the Metropole Region of the Western Cape, South Africa. A cross – sectional survey, utilizing a self-administered questionnaire on a convenient sample of 417 stroke patients, was used to collect data. A sub-sample of 10 participants was purposively selected for in-depth, face-to-face interviews.*

Approximately forty percent (40.3%) of the participants did not engage in physical exercise. While 30.2% smoked only 9% abused alcohol. A significant association was found between age and smoking ($p < 0.002$). Information gathered in the in-depth interviews revealed factors that influenced the behaviours of the participants. These factors included lack of financial resources and lack of access to information. As participants were found to be at risk of secondary complications because of poor lifestyle choices, there is a clear need to implement health promotion programmes to promote well-ness enhancing behaviours in order to enhance the quality of health of patients who have suffered a stroke in the Western Cape, South Africa.

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INTRODUCTION

Physically disabled individuals, including those who have suffered a stroke, are highly susceptible to secondary health complications, which may arise after a primary disability (Pope and Tarlov 1991). In patients who have suffered a stroke these secondary complications not only include contractures, spasticity and pressure sores, but also include psycho-social adjustments to depression, isolation and environmental issues such as architectural inaccessibility (Frey et al 2001). The occurrence and severity of secondary conditions can limit the person's ability to perform essential tasks and social roles (Coyle et al 2000). In addition to being predisposed to secondary complications, stroke patients often also have predisposing illnesses that have been identified as modifiable risk

factors for stroke. These illnesses include hypertension, diabetes mellitus, cardiac disease and hyperlipidemia (Connor and Bryer 2006). Excessive alcohol use and smoking have also been identified as modifiable risk factors for stroke (Bonita et al 1999). According to the South African National Guideline on Stroke and Transient Ischaemic Attack Management (2001), such risk factors place individuals who have suffered a primary stroke at greater risk for a second stroke.

Age and stroke severity have been found to be risk factors for death and dependency within the first year post stroke (Appelros et al 2003). The long-term prognosis post stroke is also affected in individuals who have cardiac problems (Appelros et al 2003). The modifiable risk factors and secondary complications can further be aggravated by the lifestyle the person engages in following a stroke. A habitual lifestyle that involves health-promoting behaviours such as appropriate use of medicines, being physically active and good hygiene enhances an individual's health status. On the other hand, practising health risk behaviours which

include physical inactivity, poor hygiene and smoking are potential dangers, which often result in poor health conditions and ultimately a poor quality of life (Mutimura 2001). Engaging in health risk behaviours could compromise the functional mobility of the disabled individual and potentially lead to an earlier decline in health and a dependency on other individuals for care (Stuifbergen and Roberts 1997).

By shifting the focus in health to health promotion, disabled individuals can be empowered with knowledge to avoid health risk behaviours. Health Promotion is defined by the Ottawa Charter as the "process of enabling people to increase control over, and to improve, their health" (WHO 1986). Five strategies are set out in the Ottawa Charter for successful health promotion. These are: 1) building healthy policy, 2) creating supportive environment, 3) strengthening community action, 4) developing personal skills and 5) re-orienting health services. With regards to people with disabilities however the definition of health promotion includes, promotion of healthy lifestyles and a healthy environment, prevention of

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secondary complications and further disabling conditions, preparing the person with a disability to understand and monitor his or her own health and health care needs as well as participation of the individual in community held life activities (Public Health Service 1998). An important focus of health promotion is motivating individuals to engage in healthy lifestyle behaviours. Addressing the risk factors related to stroke can decrease the occurrence of a stroke (Bonita et al 2004). Studies have shown that decreasing high blood pressure and cessation of cigarette smoking can decrease stroke incidence (Wolfe 1991). Excessive alcohol consumption should also be addressed as there is some evidence indicating it increases the risk for stroke (Salter et al 2007). Correct use of prescribed medication is also important as this would also decrease the risk for stroke (Salter et al 2007). A strong association has been found between moderate intensity exercise and reduced stroke. A low fat and cholesterol diet is effective in reducing serum cholesterol and blood pressure which may result in a reduce stroke risk (Salter 2007). Aggressive management of the above risk factors can help to reduce the risk of stroke and recurrent stroke (Joseph et al 1999). The implementation of primary prevention strategies for secondary prevention of stroke in individuals at high risk needs to occur. Before these strategies can be implemented the stroke risk factor profile needs to be known.

The aim of the present study was therefore to determine the health risk behaviours and factors that influence these behaviours of stroke patients in the Metropole Region of Western Cape, South Africa.

METHOD

Both quantitative and qualitative designs were used to collect the data. The study was conducted in the Metropole Region of the Western Cape. A total of 43 Community Health Centers (CHCs) are distributed in 8 health districts across this region. These CHCs provide comprehensive primary health care services, which include preventative, promotive, rehabilitative and curative care. The majority of stroke

patients in this region access these centers for rehabilitation, medical check-ups and to receive their monthly supply of chronic medication. A convenient sample of stroke patients was recruited using health personnel linked to CHCs in one of the 8 health districts. Purposive sampling was used to select 12 stroke patients from the main study for face-to-face interviews. Length of time since stroke and age were the characteristics used to purposively select the patients for the interviews.

Instrumentation

The instrument used to collect data consisted of an interview questionnaire. A questionnaire adapted from Mutimura (2001) was used to collect data. The original questionnaire was used to determine the health promotion needs of individuals with lower limb amputations in Rwanda (Mutimura 2001). To obtain content validity of the adapted questionnaire colleagues knowledgeable in the field of health promotion and stroke rehabilitation were requested to comment on the questionnaire. A test retest reliability study was conducted using a sample of 10 stroke patients. The questionnaire was found to be highly reliable with ICC scores ranging between 0.95 and 1.00. The questionnaire was divided into 7 sections. Section A requested for socio-demographic characteristics. Section B gathered information relating to the stroke such as date of stroke, side of impairment, admission to hospital post-stroke and rehabilitation services received. Sections C assessed variables relating to the general health/lifestyle of the patients. Sections D and E respectively dealt with the patients' knowledge of stroke and issues relating to support they received or needed. Sections F included questions relating to physical mobility. The patients were requested to respond to an item about physical activity while section G assessed the perceived health-related needs of the patients. The health-needs the patients could chose from included education about definition, causes, and prevention of stroke; HIV/Aids prevention and awareness; importance and means of exercise; weight management; coping with depression as well as information

about risk factors such as hypertension and diabetes. The process of forward and back translation was used to translate the questionnaire into Afrikaans and Xhosa two of the local languages used by the participants who were not fluent in English. Face to face interviews were used to provide in-depth descriptions of the participants' health-related behaviours and their reasons for engaging in certain lifestyles. An interview guide informed by existing literature (Stuifbergen and Rodgers 1997) was used to obtain descriptions of the participants' health-related behaviors and the reasons for their engagement in certain behaviours.

Procedure

The researcher as well as trained research assistants administered the questionnaire to the participants on a one to one basis, ensuring correct completeness of the questionnaire. The research assistants were nursing sisters, home-based carers and final year physiotherapy students. The research assistants from the specific health districts were given a list of names of stroke patients that could be recruited to partake in the study. The majority of the participants were approached at their homes while others were approached when they attended stroke clubs. When meeting with the participants the research assistant explained the purpose and possible benefits of the study to the participants, obtained informed consent and completed the questionnaires. Participants who met the inclusion criteria for the qualitative part of the study were contacted by the researcher to obtain their consent and willingness to be interviewed. A convenient time and location was determined for the qualitative interviews, which lasted on average fifty minutes.

The quantitative data was analysed descriptively using Microsoft Excel and the associations between health related behaviours and factors that influenced these were analysed using the chi-square test at a significance level of ($p < 0.01$). The qualitative data was transcribed verbatim and common themes were identified. The qualitative data was used to verify some of the quantitative findings.

RESULTS

Socio-demographics and health-related characteristics

Although a total of 420 questionnaires were completed, 3 questionnaires were incomplete and were therefore not included in the analysis of the data. The mean age of the participants was 61.4 years, with ages ranging from 31 – 91 years (SD 10.1). The socio-demographic characteristics and risk factors as reported by the participants are summarized in **Table 1**.

Health Related Behaviors:

Two hundred and forty nine (59.7%) of the participants participated in some kind of physical activity or exercise while 168 (40.3%) did not participate in any kind of physical activity or exercise. **Table 2** illustrates the frequency of participation in physical activity or exercise in relation to gender, employment status and stroke chronicity. No significant difference was found between participation in physical activity and the socio-demographic variables.

A number of barriers to participation in physical activity were identified by the participants (see **table 3**). The greatest barrier to participation in physical activity or exercise, reported by the participants was a lack of energy and uncertainty if they would cope with exercise (n=92, 36.2%). This finding was emphasized by one of the participants in the in-depth interviews as illustrated by the following response.

P1 ... *I can't manage any type of exercise. I used to go to the stroke group but would feel very tired after the exercises. Every one else exercising in the group did not get as tired as I did...*

Lack of motivation to participate was also highlighted as a barrier by two of the participants interviewed.

P11 ... *I do know a few exercises I should be doing everyday to keep my hand and my leg moving, but to be honest I just don't do them. I don't see how those exercises will help me move easier. Perhaps if I was encouraged more by my wife to do the exercises, I will try harder to do them...*

Table 1: Socio-demographic characteristics of the study sample (N=417)

Variable	n	%
Gender		
Male	170	40.8
Female	247	59.2
Marital status		
Married	181	89.8
Widowed	133	60.0
Divorced/separated	47	23.1
Single	56	26.3
Employment		
Employed	8	1.9
Retired	106	26
Receiving a disability grant	129	31.5
Disabled no grant	142	34.7
Unemployed	12	2.9
Education		
Primary level	170	40.8
Secondary level and above	247	59.2
Illnesses		
Hypertension	348	83.5
Diabetes	144	34.5
Cardiac illnesses	70	16.8
Time since stroke (months)		
≤ 6		19.1
> 6 -12		9.9
> 12		71 .0

Table 2: Frequency of participation in physical activity in relation to gender, education, employment status and time since stroke (n=249)

	Everyday N (%)	3 times a week N (%)	Once a week N (%)	Hardly ever N (%)
Gender				
Male	48 (46)	21(20.2)	26 (25)	9 (8.7)
Female	65 (44.9)	38 (26.2)	33(22.7)	9 (6.2)
Education				
Primary level	54 (50)	16 (14.8)	27(25)	11(10.2)
Secondary and above	59 (41.9)	43 (30.4)	32 (22.7)	7 (5)
Time since Stroke (months)				
≤ 6	41 (16.5)	9 (3.6)	23 (9.2)	3 (1.2)
> 6 -12	34 (13.7)	10 (4)	14 (5.6)	9 (3.6)
> 12	38 (15.3)	40 (16.1)	24 (9.6)	6 (2.4)

P7 ... *It's like if I had someone to guide and motivate me I wouldn't feel so helpless and afraid about what the future holds for me...*

Not knowing where to exercise was reported by 48 (19%) participants. This was also reiterated by one of the participants in the interview.

P8 *As far as I know there are no proper facilities in this community for disabled people like me to use for exercising. Everything is always focused on the fit ...*

Twenty six (10.2%) of the participants were not involved in any physical activities because of various health concerns. The influence of this factor was also explained by one participant.

Table 3: Barriers to participation in physical activity or exercise (n=254)

Barriers to participation in physical activity or exercise	N	%
Cost of transport	37	14.5
Do not know where to exercise	48	19
Lack of motivation	51	20
Other health concerns	26	10.2
Lack of energy/ not sure I can manage	82	32.3
Other reasons: lack of time, facilities and interest	10	4

Table 4: Participants smoking and using alcohol

Substance usage	Yes		No	
	N	(%)	N	(%)
Currently Smoking	126	(30.2)	291	(69.8)
1-5 cigarettes a day	65	(51.6)		
6-10 cigarettes a day	38	(30.1)		
11-20 cigarettes a day	23	(18.0)		
Alcohol use	55	(13.2)	262	(86.8)
Everyday	14	(25.5)		
3-4 times a week	24	(43.6)		
Once a week	9	(16.4)		
A few times a month	8	(14.5)		

P2: *...I am scared to do any exercises because what will happen if I have a heart attack or something?*

P10 *...I don't know what exercises to do because I have a heart problem...*

The frequencies with which the participants consumed alcohol and smoked are illustrated in **table 4**. One hundred and twenty six (30.2%) of the participants smoked while 55 (13.2%) consumed alcohol. A significant association was found between alcohol use and age ($p < 0.001$) as well as between smoking and age ($p < 0.002$). With regards to alcohol consumption the majority (17/55, 31%) being in the age group 63-73 years while the majority (63/123, 50%) of the participants in the 55-62 years group smoked. Additionally some of participants were partaking in more than one risky behaviour. The results indicated that if the participant smoked, it was quite likely that they consumed alcohol as well. The associations between these two variables were stronger for males ($p < 0.0001$) than for females ($p < 0.001$). Most of the participants who combined at least two

health-risk behaviours were ($n=49$) physically inactive participants and smokers (19 males and 30 females). The second highest number was ($n=46$) alcohol consumers and smokers (34 males and 12 females), while 31 participants' were physically inactive, smokers and alcohol consumers (21 males and 10 females). Twenty-eight participants' (22 males and 6 females) were both physically inactive and consumed alcohol.

Emotional factors have been mentioned by two of the participants as reasons for smoking and drinking as illustrated by the following two quotations.

P10 *... I have become very depressed since having the stroke. Now smoking feels like the only small pleasure I have in life ...*

P3 *... Wine keeps me going from day to day...I suppose it makes me happy for the day. I wouldn't be coping without it (the wine)...*

DISCUSSION

Although stroke patients remain at continued risk for recurrent stroke (Williams, 2001), the stroke patients in the present study continued to partici-

pate in risky health-related behaviours. These behaviours include not participating in physical activity on a regular basis, smoking and alcohol consumption. Joseph et al (1999) reported similar results which found that although stroke patients in their study were given advice regarding smoking, diet and exercise, their risk factor profile showed little improvement following a 2 year prevention programme. Although individuals are encouraged to partake in physical activities post-stroke a number of barriers prevent people with disabilities from partaking in physical activities. These barriers included lack of energy and motivation, lack of knowledge of where and how to exercise, cost of transport, other health concerns as well as lack of financial resources and time (Smith 2000). Other barriers to participating in physical activity identified in the present study and have been reported in other studies (Stuifbergen & Rodgers 1997; Stuifbergen et al 1990) include, lack of financial resources, having other health concerns and lack of time. The effect of the above mentioned barriers deprived persons with disabilities the opportunities to increase their overall well-being and quality of life (Stuifbergen et al 1990). A health risk behaviour of concern that the participants were involved in was smoking. Individuals who smoked had a fourfold risk of stroke compared to people who had reported that they had never smoked (Bonita et al 1999). This risk may be reduced through preventative measures, including lifestyle changes such as the cessation of smoking (Greenlund et al 2002). Emotional factors have been identified as a reason for continuing smoking post stroke. It is therefore important that these emotional factors are addressed by health professionals managing these patients in an attempt to decrease the involvement in health risk behaviours.

The above findings indicate the need for health-promoting intervention programmes for stroke patients and those at risk of stroke. One of the main foci of the Global Stroke Initiative is the implementation of prevention campaigns (Bonita et al 2004). Physiotherapists could play an active role in these

campaigns using the tools which have been identified by the Ottawa Charter as core to effective health promotion. The tools include advocacy, enablement and mediation (WHO 1986). With their knowledge regarding the implementation of effective exercise programmes physiotherapists could improve the level of physical activity of individuals and communities which could assist with stroke prevention. Physiotherapists and other rehabilitation professionals should also integrate health promotion interventions in their stroke rehabilitation programmes. They should encourage an active independent attitude towards healthy living in these individuals (Stuifbergen and Rodgers 1997). For these programme to be effective however it is necessary to obtain feedback regarding what the individuals believes and understands (Samsa et al 1997). As risk factors are different amongst different ethnic groups it is important to work in close partnerships with local community groups when developing these programmes (Dudas et al 2001).

CONCLUSIONS AND RECOMMENDATIONS

This study revealed that participants were partaking in a number of health risk behaviours. These behaviours included smoking and being physically inactive. Health risk behaviours such as these could lead to the recurrence of the stroke and subsequent complications such as contractures and pressure

sores. These conditions could further decrease the quality of life of the stroke patient. It is therefore recommended that health promotion programmes that focus on the identified health promotion needs of the stroke patients be implemented as part of the rehabilitation programmes of these patients at Community Health Centres in the Western Cape.

REFERENCES

- Appelros P, Nydevik I, Viitanen M 2003. Poor Outcome after First-Ever Stroke Predictors for Death, Dependency, and Recurrent Stroke Within the first Year. *Stroke* 34:122-126.
- Bonita R, Duncan J, Truelsen T, Jackson R, Beaglehole R 1999. Passive smoking as well as active smoking increases the risk of acute stroke. *Tobacco Control* 8:156-160.
- Bonita R, Mendis S, Truelsen T, Bogousslavsky J, Toole J, Yatsu F 2004. The Global Stroke Initiative. *The Lancet Neurology* 3:391-393.
- Conner M and Bryer A 2006. Stroke in South Africa. Chronic Diseases of Lifestyle in South Africa: 1995-2005. Technical Report. K.Steyn, J. Fourie and N. Temple. Cape Town, South Africa. South African Medical Research Council.
- Coyle C, Santiago M, Shank J, Ma G, Boyd R 2000. Secondary Conditions and Woman with Physical Disabilities: A Descriptive Study. *Archives of Physical Medicine and Rehabilitation* 81: 1380-1387.
- Dundas R, Morgan M, Redfern J, Lemic-Stojcevic N, Wolf C 2001. Ethnic Differences in behavioural risk factors for stroke: Implications for health promotion. *Ethnic Health* 6(2) 95-103.
- Frey L, Szalda-Petree A, Traci M, Seekins T 200. Prevention of secondary health conditions in adults with developmental disabilities: a review of the literature. *Disability and Rehabilitation* 23: 361-369.
- Greenlund K, Giles W, Keenen N, Croft J, Mensah G 2002. Physician Advice, Patient Actions, and Health-Related Quality of Life in Secondary Prevention of Stroke through Diet and Exercise. *Stroke* 33: 565-579.
- Joseph L, Vicken L, Babikin M, Allen N, Winter M 1999. Risk Factor Modification in Stroke Prevention. The Experience of a Stroke Clinic. *Stroke* 30:16-20.
- Mutumura E 2001. Health Promotion Needs of Physically Disabled Individuals with Lower Limb Amputation in Selected Areas Of Rwanda. Unpublished Master's Thesis, University of the Western Cape.
- National guideline on Stroke and Transient Ischaemic Attack Management. 2001 Department of health Republic of South Africa.
- Pope A and Tarlov A 1991. Disability in America: Toward a National Agenda for Prevention. Washington D.C: National Academy Press.
- Public Health Service 1998. Healthy People 2010 Objectives: Draft for Public Comment. Washington, DC: US Department of Health and Human Resources.
- Samsa G, Cohen S, Goldstein L, Bonito A, Duncan P, Enarson C, DeFries G, Horner R, Matchar D 1997. Knowledge of Risk Among Patients at Increased Risk for Stroke. *Stroke* 28:916-921.
- Salter K, Teasall N, Foley N, Bhogal S, Speechly M 2007. a "Secondary Prevention of Stroke" Evidenced Based Review of Stroke Rehabilitation 5th edition. Retrieved 31/01/08.
- Stuifbergen A., Rogers G 1997. Health promotion practices of woman with Multiple Sclerosis. *Archives of Physical Medicine and Rehabilitation* 78:3-9.
- Stuifbergen A, Becker H, Sands D 1990. Barriers to Health Promotion for individuals with disabilities. *Family and Community Health* 13:11-22.
- Smith R 2000. Promoting Health of people with physical disabilities: a discussion of the financing and organization of public health services in Australia. *Health Promotion International* 15: 79-86.
- Williams G 2001. Incidence and characteristics of total stroke in the United States. *BMC (Biomed Central) Neurology* 1:2-17.
- World Health Organisation 1986. The Ottawa Charter: principles for health promotion. Copenhagen: WHO Regional Office for Europe.
- Wolfe P, D'Agostino R, Belanger A, Kannel W 1991. Probability of Stroke: A Risk Profile From the Framingham Study. *Stroke* 22: 312-318.

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Patient Satisfaction with the Physiotherapy Service in an Intensive Care Unit

ABSTRACT: *Patient satisfaction with physiotherapy treatment is an important outcome measure that is often overlooked. The aim of this quality assurance activity was to assess patients' satisfaction with the physiotherapy service provided in an intensive care unit (ICU). A questionnaire evaluating factors pertaining to patient satisfaction was specifically designed for use in this study. Questionnaires were distributed to patients who had spent a minimum of two weeks in the Royal Adelaide Hospital ICU, within a few days of transfer to a general ward. Thirty five patients completed the questionnaire over the 15 month study period. Respondents reported a high degree of satisfaction with the personal characteristics of the physiotherapists seen and the physiotherapy service provided in ICU.*

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KEY WORDS: *PHYSIOTHERAPY, PATIENT SATISFACTION, INTENSIVE CARE UNIT.*

INTRODUCTION

In this era of evidence based medicine, there is an increasing onus on physiotherapists to base their interventions on evidence whenever possible, and to use outcome measures to evaluate the effectiveness of treatment. The sorts of outcome measures that may be used to assess the effectiveness of physiotherapy intervention range from 'physiological' data (eg goniometric range of movement, dynamometric measurement of strength) to patient reported parameters (eg quality of life, pain, satisfaction).

Patient satisfaction with physiotherapy is a relatively under-utilised outcome measure in physiotherapy, although it has been evaluated for some patient groups (eg patients with cystic fibrosis, out-patients with low back pain, patients attending private practices). In those studies that evaluated patients' satisfaction, issues that were considered important included the physiotherapist's personal and professional manner (eg friendliness, empathy, consideration of privacy), explanation of assessment and treatment, and adaptation of treatment to suit the patient (Goldstein et al, 2000; May 2001a, b; Monnin and Perneger, 2002; Potter et al, 2003).

A literature review was unable to identify any research assessing patient satisfaction with physiotherapy services provided in an intensive care unit (ICU).

Instead, the outcome measures used to assess the effectiveness of physiotherapy for ICU patients have predominantly comprised physiological data (eg haemodynamic and respiratory parameters). This is an important oversight, not only from the patients' perspective who seek empathy, kindness and care (Gurry, 2001; Gurry, 2002; Potter et al, 2003), but also from the physiotherapists' perspective, as patient satisfaction can have such a major influence on compliance with treatment.

Thus, the aim of this quality assurance activity was to assess the degree of patients' satisfaction with the physiotherapy service provided to them in the Royal Adelaide Hospital (RAH) ICU.

METHODS

Inclusion criteria for the study were those patients who spent a minimum of two weeks in the RAH ICU and who were deemed by treating physiotherapists to be conscious and orientated for at least two weeks of this time. This decision was based on informal verbal/non-verbal communication between the physiotherapist and patient. Patients were withdrawn from the study if their questionnaire response indicated that they were unable to recall their ICU physiotherapist. The study was conducted over a 15 month period.

The RAH ICU is a 24 bed tertiary

referral unit for adult intensive care patients with medical, surgical and/or traumatic conditions. The majority of patients in the RAH ICU are mechanically ventilated, and once they are spontaneously ventilating are usually transferred to a step down unit or general ward. It is routine practice in the RAH ICU that patients receive sedative medication to facilitate their management as deemed necessary by medical staff – sedation is weaned / ceased when considered clinically appropriate (ie sedation is not routinely interrupted on a daily basis). Patients in the RAH ICU at the time of the study did not routinely receive treatment from a physiotherapist outside of normal weekday working hours, except if there was a specific clinical indication (eg recent extubation, acute lobar atelectasis).

Each patient included in the study was provided with a questionnaire within a few days of transfer from ICU to a general ward. Patients were asked

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