Assessment quality of life for patients with cerebro vascular accident

Samira A. Gourgees, PhD, Assistant Professor[*]

الخلاصة :

دراسة وصفية أجريت في العيادات الاستشارية لمستشفى الجملة العصبية ومستشفى بغداد التعليمي للفترة الواقعة من ١/ تموز / ٢٠٠٤ ولغاية الاول من تشرين الاول / ٢٠٠٤ وذلك من اجل تقييم نوعية حياة مرضى المصابين بجلطة دماغية (CVA) وتهدف الدراسة التعرف على المؤشرات والجوانب (الجسمية ، النفسية ، الاستقلالية ، الاجتماعية والبيئية) وعلاقتهما ببعض المتغيرات الديموغرافية بهؤلاء المرضى . اختيرت عينيه غير احتمالية من (٥٠) مريض مصاب بجلطة دماغية (CVA) . تم تطوير استمارة اعتمادا على تقييم نوعية الحياة المعدة من قبل (WHO) والتي صممت من جزئين واحتوت على (٧٧) فقرة شملت (١) استمارة البيانات الديموغرافية، (٢) الاستمارة الخاصة بتقييم نوعية حياة المرضى المصابين بجلطة الدماغية (CVA). تم تحديد الثبات بالنسبة لادوات القياس هو (٠,٩٢) حيث تمكنت الدراسة من تحقيق المصداقية لادوات القياس ايضا وذلك من خلال عرضها على الخبراء لغرض مراجعتها وتقييم درجة مصداقتها. تم استخدام الاحصاء الوصفي (التكرارات ، النسبة المئوية، الوسط الحسابي) و الاحصاء الاستنتاجي (تحليل التباين الاحادي ، الاختبار التائي)

اشارت نتائج الدراسة الى ان نوعية الحياة لهؤلاء المرضى قد تاثر بشكل بالغ من الفقرات المتعلقة بالطاقة والاعياء كجزء من المؤشر للحالة الجسمية وايضا اثرت على نوعية الحياة لهؤلاء المرضى المتعلقة بمستوى الاستقلالية والبيئة والعلاقات الاجتماعية. اوصت الدراسة اعداد و تنفيذ برنامج تثقيفي لهؤلاء المرضى .

Abstract :

A descriptive study was conducted out patient in Neuralgic Hospital and Teaching Baghdad Teaching Hospital from 1st July / 2004 through October 1st / 2004 . in order to assess with QOL for CVA patients , the study aimed to identifying the QOL domain of (physical , psychological , level of independence , social and environment) and it relation with some demographic characteristic which is related to those patients .A purposive sample of (50) CVA patients who selected from out patient clinic of hospitals . A development questionnaire was structured and is adopted of WHO quality of life questionnaire presented into (2) parts consist of (77 items) that included 1. demographic data, 2. assessment of CVA patient with QOL domains .

Reliability of the study instruments was obtained through test and retest reliability which (0.92) the content validity questionnaire was determined through panel of experts .

Descriptive statistical analysis that used (frequency , percentage , mean of score) and inferential statistical analysis (ANOVA , t test)

The study findings had revealed that the sub domain of energy and fatigue as part of the physical domain of the quality of life had greatly effected domain had also level independence , environment and social relation ship.The study recommended education program to be developed and implement for patient .

Introduction :

Cerebra vascular accident (CVA) is a sudden loss of brain function resulting from a disruption of the blood supply to a part of the brain[1] . frequently , it is the culmination of cerebrovascular disease of many years standing [2] . Cerebra vascular disease is the third ranking cause of death in the United States and strikes over 400.000 persons in the country every year , Two thirds of those who survive have some permanent disability. Thus, 2 and a half million persons in the country are disabled by stroke [3,4] .

Despite progress in stroke prevention and improvements in medical care stroke remains the third leading causes of death and the major cause of long – term disability in adults in the United States [1,4] .

---

[*] Department of Fundamental Nursing / College of Nursing / University of Baghdad.

Quality of life is define by the WHO as individual's perceptions of their position in life in the context of the culture and value systems , in which they live and in relation to their goals , expectations standards and concerns , it is a broad ranging concept incorporating in a complex way the persons , physical health , psychological state , level of independence , social relationships , personal beliefs and their relationships to salient features of the environment [6] .

Health related quality of life analysis measure the impact of treatments and disease processes on these holistic aspects of person's life . Also quality of life analyses are particularly helpful for ; investigating the social , emotional and physical effect of treatments and disease processes on people's daily lives ; analyzing the effect of treatment or disease from the patient's perspective ; and determining the need for social , emotional and physical support during illness [5,7] .

CVA has a considerable impact on the functional status and quality of life perceived by the patient [12] .

Quality of life is an important out come measurement to judge disease impact and response to treatment ; however it is very difficult to be measured [11] .

The objective of the study are to assess the quality of life domains (physical , psychological , level of independence , environment and social relation ship) and identify relation ship between demographic characteristic such as (Age , Sex , Level of education) with these domains .

Methodology :

Descriptive design was carried out to assess the (QOL) for patients with (CVA) . The study initiated from July 1st / 2004 through October 1st / 2004 . A sample of (50) patients , (35) male and (15) female were conducted with (CVA) out patient in Neuralgic Hospital and Baghdad Teaching Hospital . Questionnaire was constructed by the investigator for the purpose of the study to assess the domains which are related to (CVA) and interview techniques as mean of data collection each patient spent , approximately (30 – 45) min .

The study instrument are distributed through demographic characteristic such as age , sex , level of education , marital status and occupational status and question of QOL patients with CVA Appendix (A) . The questionnaire is adopted of WHO QOL questionnaire [6] . it is compose of five domains as follow ; physical , psychological , level of independence , Environment and social relationship domains

- Physical domains consist of (20) items and composed of four subdomaius; (3 items) pain and discomfort , (4 items) energy and fatigue , (3 items) sleep and rest , (10 items) body symptoms problems .
- Psychological domains consist of (19 items) and composed of four sub domains ; (4 items) body image and appearance , (4 items) self concept esteem , (5) items thinking ,   (6 items) learning memory and concentration .
- Independence domains consist of (13 items) and composed three sub domain's ; (3 items) mobility transfer , (6 items) activity of daily living , (4 items) dependence medication .
- Social domains consist of (9 items) and composed of two sub domain's ; (3 items) personal relationship , (6 items) social support .
- Environment domains consist of (11 items) and composed of three sub domain's ; (5 items) of physical Safety and security , (6 items) of home environment . Appendix (B)

These items are measured on (3) levels of likert rating scale always (3) , some times (2) , never (1) , the cut off point was (2) of all domains , the pilot study was

conducted on (5) patients . To determined the reliability and validity of questionnaire through use panel of expert . Data analysis by using descriptive analysis (percentage , frequency , mean of score) inferential analysis (t test , ANOVA)

Results

Table (1) : Distribution of CVA patients demographic characteristic

Demographic characteristic	F	%
Sex :		
Male	35	70
Female	15	30
Age : (years)		
21-30	2	4
31-40	4	8
41-50	6	12
51-60	18	36
$61 \geq$	20	40
Level of Education :		
Unable read and write	18	36
Read and write	10	20
Primary and intermediate of graduate	12	24
Secondary graduate	4	8
Institute and college graduate	6	12
Post graduate	0	0
Marital status :		
Single	4	8
Married	30	60
Divorced	5	10
Widowed	9	18
Separate	2	4
Occupational status :		
Covermental employ	8	16
Self employ	12	24
Retired	20	40
Unemployed	5	10
House wife	5	10

This table indicted that the majority of study sample were male (70%) and remaining were female and indicated that (40%) of the patient were ($61 \geq$) years old related to their educational status the greater number of them was to read and write and they a count for (36 %) of the same the majority of the sample were married and counted to (60%) of the whole sample with respect to their occupational status accounted for (40%) most of them are retired .

Table (2) : Mean of scores for items of physical domains

Levels / Physical items Sub domains	always		Some time		Never		MS
	F	%	F	%	F	%	
Pain and discomfort	90	60	57	38	3	2	2.6
Energy and fatigue	157	78.5	35	17.5	8	4	2.73
Sleep and rest	76	50.7	15	10	59	39.3	2.1
Body symptoms problems	260	52	70	14	170	34	2.2

Mean of score above 2 = suffering from physical domains, Mean of score less 2 = no suffering from physical domains.

This table reported that the mean of scores for all items were suffering from physical domains.

Table (3) : Mean score for items of psychological domain

Levels / Psychological items (sub domain)	Always		Some time		Never		M.S
	F	%	F	%	F	%	
Body image and appearance	95	29.5	27	13.5	78	39	2.1
Self concept esteem	88	44	53	26.5	59	29.5	2.1
Thinking problems	134	53.6	80	32	36	14.4	2.4
Learning memory and concentration	162	54	60	20	29	9.3	2.1

Mean of score than 2 = suffering from psychological domains , Mean of score less 2 = No suffering from psychological domains.

This table reported that the mean of scores on all items were highly suffering from psychological domains .

Table (4) : Mean score for items of level of independence domains

levels / Physical items (Sub domains)	Always		Some time		Never		M
	F	%	F	%	F	%	
Mobility and transfer	74	49.3	22	14.7	54	36	2.1
Activities of daily living	186	69.2	86	28.7	28	9.3	2.5
Dependence medication	23	11.5	52	26	125	62.5	1.5

Mean of score ≤ 2 = suffering from level of independence domains, Mean of score ≥ 2 = No suffering from level of independence domains.

This table reported that the mean of scores on all items were suffering except dependence medication .

Table (5) : Mean of scores for items of Environment domains

Levels Environmental items (Sub domains)	Always		Some time		never		MS
	F	**%**	**F**	**%**	**F**	**%**	
Physical safety and security.	96	38.4	87	34.8	6.7	26.8	2.1
Home environment	84	28	62	20.7	154	51.3	1.8

Mean of score above 2= suffering from Environment domains, Mean of score less 2= No suffering from Environment domains.

This reported that the mean of score on Physical safety and security are suffering but home environment are no suffering .

Table (6) : Mean of scores for items of social relation domains

Levels Social items (Sub domains)	Always		Some times		Never		MS
	F	**%**	**F**	**%**	**F**	**%**	
Personal relation ship.	138	69	51	25.5	19	5.5	2.6
Social support .	102	34	50	16.7	148	49.3	1.8

Mean of score above 2= suffering from social relationship , Mean of score less 2= No suffering from social relationship .

This table report that mean of score on personal relationship suffering but the social support were no suffering were significant except social support .

Table (7) : Statistical compression between the sex of the sample and QOL domains by the level of effect

Indicator	Sex	Mean	SD	T value	C.S
Physical domains	Male	2.21	.3318	2.99	S
	Female	2.15	.2665		
Psychological domains	Male	2.38	.3491	3.30	S
	Female	2.42	.4645		
Level of independence domains	Male	1.42	.1215	2.11	S
	Female	144	.1565		
Environment domains	Male	2.84	.3878	0.68	Ns
	Female	2.10	.3120		
Social relationship domains	Male	2.42	.5593	0.16	Ns
	Female	2.45	.6505		

Significant = $P \leq 0.05$, Df = 48 , Critcal = 1.67

This table reveals that was the Significant difference in (5) domains in relative to their sex except the environment and social domois .

Table (8) : Statistical compression between the age of the sample and QOL domain by the level of effect

Indicator	Age	Mean	SD	F. value	C.s
Physical	21-30	1.442	.1161	3.28	S
	31-40	1.434	.1027		
	41-50	1.401	.1753		
	51-60	1.426	.1180		
	61≥	1.49	.1147		
Psychological	21-30	2.340	.2253	7.61	S
	31-40	2.131	.3978		
	41-50	2.139	.3205		
	51-60	2.107	.2681		
	61≥	2.128	.3250		
Level of independence	21-30	2.026	.3596	3.44	S
	31-40	2.238	.3477		
	41-50	2.017	.4030		
	51-60	1.900	.3713		
	61≥	1.940	.1673		
Environment	21-30	2.398	.3449	9.12	S
	31-40	2.597	.1922		
	41-50	2.438	.3241		
	51-60	2.118	.4362		
	61≥	1.797	.4106		
Social relationship	21-30	2.275	.5571	12.18	S
	31-40	2.918	.1618		
	41-50	2.478	.5149		
	51-60	2.031	.5280		
	61≥	1.775	.6812		

Significant = $P \leq 0.05$,   Df = 4 ,   Critical = 2.37

This table indicated that there were significant difference in all the domains .

Table (9) : Statistical compression between the level of education the sample and the QOL domains by the level by effect

Indicator	Level of education	Mean	SD	F. value	C.S
Physical	-not able to read & write -read and write -primary and intermediate -secondary. - institute and college	1.4231 1.318 1.256 1.153 1.461	.2305 .1672 .1813 .1421 .1088	3.161	S
Psychological	-not able to read & write -read and write -primary and intermediate -secondary - institute and college	2.526 2.490 2.363 2.221 2.68	.2506 .2192 .3661 .40561 .3933	3.243	S
Level of independence	-not able to read & write -read and write -primary and intermediate -secondary - institute and college	2.252 2.375 2.217 2.115 2.43	.2331 .2281 .3072 .3541 .3570	2.923	S
Environment	-not able to read & write -read and write -primary and intermediate -secondary - institute and college	2.253 2.363 2.170 2.047 2.285	.1979 .2557 .3408 .3213 .3350	3.436	S
Social relationship	-not able to read & write -read and write -primary and intermediate -secondary - institute and college	2.454 2.668 2.423 2.156 2.435	.5598 .4105 .5672 .6375 .6008	2.850	S

Significant = P $\leq$ 0.05   , Df = 4   ,   F. critical = 2.37

This table indicated that there were significant difference in all the domains .

Discussion

The findings of the present study showed the majority of the sample were male (70%) while female were (30%) table (1) the findings were similar to those other study Frick who stated that man are almost twice as likely as women to suffer from CVA[5]. The their age , the study indicated that the higher presented (61 / $\geq$) years was (40%) . Gosman , mentioned that of all ages suffer from CVA but most commonly incidence of CVA is highest in elderly [3] .

Regarding the majority of the sample (36%) were unable to read and write , relative to their marital status most of them (60%) were married of concerning occupational status the result of present study indicated that (40%) of retired this result is supported by Gonsman who stated that patient CVA most of them elderly and unemployed [3] .

The present study revealed that patient suffered from physical domains (table2) . Long and phipps mentioned that patient with CVA develop a wide variety of

chronic discomforts and patient exposed to sleep disorder maybe due to pruritus especially at night [11] .

The findings showed that the patient complained of change body image and appearance also self concept self – esteem are memory and thinking problems (table 3) these results agree with Erica , et al mentioned that depression is a very common feature following   CVA [9] . Cock et al monitored that both men and women having intensive fear of pain and fear death increased consistently through each point of measurement (2) .Eakin have reported that increase in health problem and depressive illness amongst the families of stroke victims [10] .

The findings of the study indicated that have experienced problems in mobility and transfer (table 4)a study was done by Cock , et al, who stated that the women in this sample needing help with these activities at 24% and 35% respectively[2]. Johansson et al found significant improvement in a group of stroke patient's who received acupuncture during the a cut phase , compared with an untreated group , regarding assessments of walking , balance , activities of daily living (ADL) , quality of life , mobility and emotional state , the acupuncture group also spent fewer days in nursing homes and rehabilitation wards compared with the control group [7] .

The effect of environment domain have experience problem table (5) Chalmer showed that environment support is necessary for a CVA patient to promote continuing human development the person [1] .

The effect social domain have experience problems in personal relationship (table 6). Glass who state that chroincally ill patient loses health membership in social group , independence financial stability , employment and hopes for the future [4] .

Result of the study showed that there was significant statistical between sex and three QOL domain (physical , psychological and environma) $p < 0.05$ except level of indepence and social are no significant (table 7).

The result found that statistically significant at level $p < 0.05$ between all the QOL domains and age (table 8) . The incidence and mortality from CVA increase with age but at least (25) present of (CVA) victims are under the age of 65 years (8) . regarding the QOL domain with level of education (table 9) unfortunately . The highest number of the sample were not read and write and was move effected in all domains . this result agrees with Erica et al study of CVA patient high educational were factors significantly related to a good QOL [9] .

Recommendations
1. To encourage the establishment of a society for patient with CVA disease to look after their personal , social problems and rehabilitation programs for better quality of life .
2. Educational program for those patients should be designed to help them live a better life with CVA , the patients emphasize the importance of how to cope with their problems for a good quality of life .
3. Coordination with Ministry of Health through highly trained staff concerning cerebrovascular disease and how to tack care for the patients .
4. Farther studies can be conducted with large sample size and different setting

References
1. Chalmers , C. : Talking to stroke patieat's , **nursing times** , Aug. , 81(32) , 1985 , PP. 7-13.
2. Cock Croft , G etal : feeding problems in stroke patients , **Nursing mirror** , 160(1), 1989 .

3. Gosman , G. ; Effect of Acupuncture treatment on daily life activities and quality of life , **Amrican heart association**, 29 , 1998.
4. Glass , T. the quality and quantity of social support : stroke recovery as psycho – social transition , **Soc, Sci , Med** , Jun. 34 (11) , 1992.
5. Frick , 1 : **The quality of life the missing measurment in health care**, 2nd ed.,. creat Britain : A corrdor book sourenir press (Eda) Ltd , 1991 . PP.133 – 137 .
6. World Health Organization Quality of Life, **Program on mental health** , world health organization QOL user manual geneve division of mentat health , 1998 .
7. Johansson , K . librdgren , L. and Widner , H: Can sensort stimulation improve the functional out come in stroke patients? Neurology, 43(21), 1993, P. 189 .
8. Kinney M.R. , etal : quality of life in cardioc patient research ameta – analysis , Nsg research , may , 245(3) , 1996 .
9. Erica . B. stern , Ph. And et. al.: Community education for stroke a wariness , **American heart association** , 30, 1999
10. Eakin . P.: Problems with assessments of activities of daily living , **Brj. Accup ther** . 1998 .
11. Long B.C and Phipps . W.: **Essentials of medical surgical nursing**: a nursing process approach , 1st ed , C.V. mosby company st . louis , 1985.
12. Zehan .l quality of life : conceptual and measurement issues , **journal of advanced nursing**, 17 , 1992 .

Appendix (A)

الاستمارة الخاصة بدراسة تقييم نوعية حياة المرضى المصابين بطارئة وعائية دماغيه .

أولا : المعلومات العامة :

الجنس : ذكر   أنثى

العمر :

المستوى التعليمي :
لا يقرا ولا يكتب   يقرا ويكتب   ابتدائية

متوسطة   ثانوية   معهد أو كلية

دراسات عليا

الحالة الاجتماعية :
اعزب   متزوج   مطلق   ارمل

منفصل

المهنة :
موظف حكومي   اعمال حرة   متقاعد

لا يعمل   ربة بيت

Appendix (B)

الاستمارة الثانية :

ابدا	احيانا	دائما	المؤشرات الجسميه
			١. الالم وعدم الراحة :
			أ. اشعر بالالم في جميع اجزاء الجسم .
			ب. اشعر بالالم عند القيام بعمل ما .
			ت. اعاني من الصداع .
			٢. الطاقة والشعور بالاعياء :
			أ. اشعر بالتعب لاي جهد بسيط .
			ب. اضطر للتوقف عن المشي بعد فترة قصيرة .
			ت. اعاني من التعب والخمول .
			ث. لا اتمكن من صعود السلالم
			٣. النوم والراحة :
			أ. اعني من الارق.
			ب. اعاني من كثرة النوم .
			ت. اشعر بعدم الراحة عند التفكير بان حياتي مهددة .
			٤. الاعراض الجسمية الناتجة من المرض :
			أ. اعاني من ضعف الأطراف العليا
			ب. اعاني من ضعف الاطراف السفلى .
			ت. اعاني من اضطرابات الرؤيا .
			ث. اعاني من اضطرابات السمع .
			ج. اعاني من التحدث بصورة واضحة .
			ح. اعاني من فقدان الاحساس في الاطراف العلي .
			خ. اعاني من فقدان الاحساس في الاطراف السفلى .
			د. اعاني من صعوبة التنفس .
			ذ. اعاني من ارتفاع الضغط .
			ر. اعاني من الم الصدر .
ابدا	**احيانا**	**دائما**	**المؤشرات النفسيه**
			١. هيئة الجسم والمظهر :
			أ. اشعر باختلاف مظهري عن الاخرين .
			ب. اتقيد في ارتداء الملابس .
			ت. اشعر بالخجل عندما يزورني الاخرين .
			ث. لا اشعر بالرغبة في رؤيتي بالمراة .
			٢. قيمة وتقبل الذات :
			أ. اشعر بعطف الاخرين اتجاهي .
			ب. اشعر بالحرج امام الاخرين .
			ت. اشعر بالتوتر العصبي والنفسي .
			ث. ينتابني شعور بالانقباض الداخلي .
			٣. التفكير :
			أ. افكر بطول فترة العلاج
			ب. افكر كثيرا بما يكلفني العلاج
			ت. افكر كثيرا بالمرض ومستقبلة .
			ث. افكر بالخوف من الموت .
			ج. افكر كثيرا بمستقبل عائلتي ز
			٤. التركيز والذاكرة والتعليم :
			أ. لا امتلك القدرة على التركيز .
			ب. اعاني من النسيان .
			ت. اواجه صعوبة في التعليم نتيجة المرض .
			ج. اواجه صعوبة في ذكر الاشياء المحيطة بي .
			ح. فكري مشوش .
			خ. اواجه صعوبة في التعلم

ابدا	احيانا	دائما	المؤشرات الاستقلالية
			١. القابلية على الحركة والاستقالة :
			أ. اجد صعوبة في التجوال بدون مساعدة .
			ب. اقضي معظم وقتي بحركة قليلة .
			ت. استخدم الكرسي المتحرك للانتقال .
			٢. النشاطات الحياتية اليومية :
			أ. لا استطيع غسل وجهي الا بمساعدة الاخرين
			ب. لا استطيع تصفيف شعري الا بمساعدة الاخرين .
			ت. لا استطيع تغيير وضعيتي الا بمساعدة الاخرين .
			ث. لا استطيع استخدام الحمام الا بمساعدة الاخرين .
			ج. لا استطيع تغير الملابس الا بمساعدة الاخرين .
			ح. لا استطيع تناول غذائي الا بمساعدة الاخرين .
			٣. الاعتماد على الادوية والعلاجات :
			أ. اعتمد على الاخرين في اخذ الادوية .
			ب. اعاني من عدم انتظامي في اخذ الدوية .
			ت. اعاني من صعوبة الحصول على الدواء .
			ث. تعتمد حياتي على تعاطي الادوية باستمرار

ابدا	احيانا	دائما	المؤشرات الاجتماعية
			١. العلاقات الشخصية :
			أ. اميل الى الانعزال بعيد عن الاخرين .
			ب. اعاني من التغيرات او الفتور في العلاقات العائلية .
			ت. علاقتي مع الاصدقاء اصبحت سلبية .
			٢. الدعم الاجتماعي :
			أ. لا اجد من يساعدني .
			ب. اعاني من فقدان الاهتمام العائلي .
			ت. تحدد مسؤولياتي بعد اصبتي بالمرض .
			ث. لا امتلك الرغبة في التعامل مع الاصدقاء .
			ج. اعاني من عدم دعم الاصدقاء لي او التعاون معي .
			ح. افقد القدرة على اتخاذ القرارت وحل مشاكلي .

ابدا	احيانا	دائما	المؤشرات البيئية
			١. الامان :
			أ. اجد صعوبة في نزولي من السرير .
			ب. اجد صعوبة في صعودي الى السلالم .
			ت. اجد صعوبة في ذهابي الى الجيران .
			ث. ينتابني الضجر في الاماكن العامة .
			ج. ارضية المنزل غير صالحة للمشي .
			٢. بيئة المنزل :
			أ. اجد صعوبة في رمي النفايات في سلة المهملات واخراجها من الغرفة .
			ب. تهوية المنزل غير جيدة .
			ت. اجد صعوبة في استعمال المرحاض .
			ث. اجد صعوبة في اداء مهمات البيت (مثل نظافة الحديقة) .
			ج. تزعجني وجود الضوضاء في البيت .
			ح. تزعجني قطع الكهرباء باستمرار .