



RESEARCH ARTICLE

HEALTH RELATED QUALITY OF LIFE OF THE DIABETIC CLIENT IN SELECTED HOSPITALS OF KATHMANDU, NEPAL

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ABSTRACT

**Introduction:** Type II diabetes is a common condition and a serious national and international health problem. In most countries diabetes has increased along-side rapid cultural and social changes: ageing populations, increasing urbanization, dietary changes, reduced physical activity and unhealthy behaviors. About eight percent of adults in the world are estimated to have diabetes, out of them eighty percent live in low- and middle-income countries. The main objective of this study is to assess the health related quality of life of adult diabetic client.

**Methods:** In this study descriptive exploratory study design was used. Simple random sampling technique was adopted to select the hospital and purposive sampling was used for the selection of the study population. All together the total study population were 301 of type II diabetic client. Written consent was taken from each respondents. Univariate analysis was used for mean, median, range and standard deviation and Bivariate analysis was used for Chi-square test, ANOVA and Pearson Correlation.

**Result:** The mean age of the respondents was 52.903 years  $\pm$ 8.272 and it is strongly related with physical domain, which is statistically significant where (p-value =0.000). The chi-square test (p-value =0.021) showed that there is relationship between duration of diabetes and psychological health status. There is strong relationship between diabetes complication and quality of life which is proved by ANOVA test where (F-value 8.208 and P- value.004).

**Conclusion:** HRQoL is strongly reduced in diabetic patients. Apart from demographic characteristics, presence of complications influences is more in HRQoL. Diabetes could be prevented by running awareness program and adopting the healthier behavior.

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INTRODUCTION

Diabetes is more common in the age group of 40-59 years. All nations—rich and poor—are suffering the impact of the diabetes epidemic. Diabetes particularly affects those who are socially and economically disadvantaged. Yet, with 175 million of cases currently undiagnosed, a vast amount of people with diabetes are progressing towards complications people are not aware about it (International Diabetes Federation, 2013). In Nepal prevalence of diagnosed type II diabetes, projected to rise 12.73%, 15.11%,17.49% in 2010,2015,2020 respectively (Dulal and Karki, 2009). Support from diabetes specialist nurses, other patients, and family

members is necessary to council the diabetic client to manage diabetes (Rise *et al.*, 2013). The major challenges faced by diabetic clients are making lifestyle changes, dealing with unsolicited advice on what should be eaten, impact of exercise on diabetes control, avoiding foods that one really enjoy, eating at social events where one have to control the diet, managing disease without taking insulin (Smyth, 2015). Theory claims there should have been better health related quality of life of people suffering from diabetes but in practice the HRQQL of diabetic patient is not very good (Chukwama and Tuomilehto, 2000). Researcher revealed that quality of life is not affected by early screening of diabetes (Edelman, Olsen, Dudley, Harris, 2002). To maintain quality of life certain challenges should be overcome. Non-adherence was more in the lower socio-economic group (Venkataraman, *et al.*, 2009 Jul-Aug). Major diabetes complications are associated with worse health-related quality of life (Coffey *et al.*, 2002).

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## MATERIALS AND METHODS

Descriptive exploratory cross sectional study design was used. Probability simple random sampling technique was used to select the hospital and purposive sampling was used for the selection of the study population and total study populations were 301. Written consent was taken from each respondents. Data were collected from March-September 2015 in Bir Hospital i.e National Academic of Health Sciences, Patan Hospital and stupa community hospital. Ethical permission was taken from Nepal Health Research council and then from the respective hospitals. Written consent was taken from each respondent for data collection after explaining the purpose of the study. Data entry was done in EPI Info 3.1 and data analysis was done by SPSS (Statistical Package for Social Science) version 20 and Microsoft Excel program. Univariate analysis was used for mean, median, range and standard deviation and Bivariate analysis was used for Chi-square test, ANOVA and Pearson Co-relation.

## RESULTS

The mean age of the respondents were 52.903 years  $\pm$ 8.272. In terms of education majority i.e. (32.9%) belongs to the illiterate group. Likewise ration of male and female were (Male: 54.5: female45.5). Regarding ethnicity, Bramin/ Chettri constituted the 50.3% of the study population. Business (30.9%) was the main occupation. Regarding economic status majority of the respondents (53.2%) illustrated that their annual family income was not sufficient up to 6 months followed by (38.5 %) it's enough for 6 month likewise (8.3%) said that food enough for one year.

### Awareness experience and management of hypoglycemia

Majority of (77.1%) respondent have heard about hypoglycemia, majority (52.2%) illustrated that hypoglycemia cannot be managed at home, like wise majority (68.4%) have never experienced hypoglycemia.

### Gender different and quality of life

Whi analyzing the correlation between gender of the respondents and quality of life the Pearson correlation test shows that there is no significant relationship ( $r = -.033$ ,  $p = 0.572$ ) between sex of respondents.

#### Health related Quality of life in different Domains

Different domains	Mean	Standard deviation
General health status	3.32	.91
Physical health status	3.48	.97
Psychological health status	3.55	.95
Pain and sleep patron	3.29	.92
Incurred cost due to Diabetes	2.73	1.003
Satisfaction in dietary regimen, treatment and exercise	3.78	.865

\* 5 options likert scale

The table data shows that highest mean value 3.78 and standard deviation  $\pm$ .865 noted in satisfaction in dietary regimen treatment and exercise. Similarly, the lowest mean

value 2.73 and standard deviation  $\pm$ 1.003 found in the incurred cost due to diabetes.

#### Association between quality of life in different Domains with selected variables through chi-square test

Variables	Different domains to measure quality of life	P-value
Age of the Respondent	General Health status	0.000
Age of the Respondent	Physical health Status	0.000
Age of the Respondents	Incurred cost due to Diabetes	0.000
Age of the Respondents	Disturb in sleep pattern due to diabetes pain	0.164
Diabetic complication	Psychological health status	0.001
Diabetic complication	Incurred cost to manage diabetes	0.000
Economic Status	Satisfaction on diet, treatment and exercise	0.000
Duration of diabetes	Psychological health status	0.021

The data shows that there is significant relationship between age of the respondent and general health status, physical health status, incurred cost due to diabetes. Similarly there is significant relationship between diabetic complication and psychological status, incurred cost to manage diabetes. Likewise there is significant association between Economic Status and satisfaction on diet, treatment and exercise. Also there is significant relationship between duration of diabetes and psychological health status. But there no significant relationship between age of the respondents and disturb in sleep pattern due to diabetes pain

## DISCUSSION

Majority of the respondents belongs to the age of 56-60years. The mean age of the respondents was 52.903 years  $\pm$ 8.272. Other study support this study where report shows that the prevalence of diabetes among elderly population of Kathmandu Valley is more than is aged 60 years and above is 25.9% (Chhetri and Chapman, 2009). Majority (77.1%) have heard about hypoglycemia while (22.9%) had not heard about hypoglycemia and its managements. Similar type of study result correspond with the present study result in which result shows that quality of life of diabetic clients was most significantly affected by awareness of the diabetes and complications and risk-factors of diabetes (Kalda *et al.*, 2008). Present report shows that there is relationship between age of the respondents and physical health status in which p-value is .000. The study report is supported by other study done by (Eljedi *et al.*, 2006) where the result shows that higher age reduces the HRQOL in diabetic patients. Present result shows that there is significant association between duration of diabetes and psychological health status. Similar type of study correspond with the present study result in which it shows that there is associated with a longer duration of diabetes, poor sleep quality lower health-related quality of life (Lou *et al.*, 2014). Present study result shows that almost half of the respondent (50.2%) was suffering from diabetes complications of and there is significant relationship between diabetic complication and incurred cost to manage diabetes in p-value is 0.000 observed. Similar type of study done and the results correspond with the present study in which it shows that largest component of unadjusted costs during the episode was inpatient visits to treat complication, followed by other ancillary care (Candrilli *et al.*, 2015). The present result shows

that there is relationship between pain and sleep patron and duration of diabetes which is statistically proved by chi-square test result where p value is .002. Elsewhere study shows that Poor sleep quality reduces mental and physical HRQoL and it is associated with decreased functional outcomes in adults with type 2 diabetes (Chasens *et al.*, 2014). The results of this study indicated that there is relationship between level of education and quality of life it is prove by ANOVA test, P-value is .004 observed. The present study result correspond with the elsewhere study in which it shows that is relationship between knowledge and attitude about diabetes and health related quality of life and found that if attitude toward disease is positive it will help to improve the quality of life (Papadopoulos *et al.*, 2007). Present result shows that age of the client and economic burden is significantly affected, upon that if the complication is prevent there will be more economic burden and quality of life will be more affected. The present report correspond with elsewhere study in which result shows that Low SES groups have to face double burden of the problem that is lower levels of health and low level of SES so impaired HRQoL (Mielck *et al.*, 2014).

### Conclusion

Majority of the respondents have heard about hypoglycemia. Perception and feeling about general health status is significantly affected by level of education, previous experience of hypoglycemic attack. Age of the respondent affects quality of life in general health, physical health and also there is relationship between age and incurred cost due to diabetes. Presence of diabetic complication plays a major role in affecting quality of life. Duration of diabetes also to some extent plays an important role in affecting the quality of life. Gender different does not have any role in affecting the quality of life but type of occupation plays a major role in affecting the quality of life. So awareness program should be initiated to reduce the number of diabetic patient, prevent complication and improve quality of life.

### REFERENCES

Chasens, R., Sereika, S., Burke, L.E.A., Stollo, P.J. and Korytkowski, M. 2014. Sleep, Health-Related Quality of Life, and Functional Outcomes in Adults with Diabetes. *Applied Nursing Research*, 114-119.

Chhetri, M.R. and Chapman, R.S.2009. Prevalence and Determinants of diabetes among the Elderly Population in the Kathmandu Valley of Nepal. *College of Public Health Sciences*, 34.

Chukwama, C. and Tuomilehto, J. (2000, p.11-23) The 'Thrifty' Hypothesis: clinical and Epidemiological Significance for Non- Insulin and Cardiovascular Disease Risk Factors. *Journal of Cardiovascular*, 5 (1), 11-23.

Coffey, J.T., Brandle, M., Zhou, H., Marriot, D., Burke, R. and Tabaei, B. 2002. Valuaing health related quality of life in Diabetes. *Diabetes care*, 25 (12), 2238-2243.

Dulal, R.K. and Karki, S. 2009. Disease management programme for diabetes mellitus in Nepal. *JNMA J Nepal Med Assoc.*, 176 :281-6.

Edelman, D., Olsen, M.K., Dudley, T.K., Harris, 2002. Impact of Diabetes Screening on Quality of Life. *Diabetes Carecare*, 25 (6), 1022-1026.

Eljedi, A., Mikolajczyk, R.T., Kraemer, A. and Laaser, U. 2006. Health Related Quality of Life in Diabetic Patients and Controls without Diabetes. *BMC Public Health*, 6 (268), 2458-2468.

International Diabetes Federation (2011, June). IDF. Retrieved May 5, 2014, from www.idf.org: <http://www.idf.org/types-daibetes>

Kalda, R., Ratsep, A. and Lember, M. 2008. Predictors of quality of life of patient with type II diabetes. *Dove Medical press*, 2, 21-26.

Lou, P., Qin, Y., Zhang, P., Chen, P., Zhang, L., Chang, G. and Li, T....*et al.* (2014, October 17). Association of sleep quality and quality of life in type 2 diabetes mellitus: A cross-sectional study in China.

Mielck, A., Vogelmann, M. and Leidl, R. 2014. Health-related quality of life and socioeconomic status: Inequalities among adults with a Chronicdisease. *Health and Quality of Life Outcomes*, 12 (58), 1-10.

Papadopoulos, A.A., Kontodimopoulos, N., Frydas, A., Ikonomakis, E. and Niakas, D. 2007. Predictors of Health Related Quality of Life in Type II Diabetic Patients. *BMC Public Health*, 7(186), 1186- 1471.

Rise, M., Pellerud, A., Rygg, L. and Steinsbekk, A. 2013. Making and maintaining Lifestyle changes after participating in Group Based Type 2 Diabetes Self Management Education: Qualitative Study. *The American Journal of Medicine*.

Smyth, V. 2015. The Diabetes Challenge. Group Health Cooperative.

Venkataraman, K., Kannan, A. T. and Viswanathan, M. (2009 Jul-Aug). Challenges in diabetes management with particular reference to India. *International Journal of Diabetes in Developing Countries*, 29 (3), 103-10

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