Quality of Life Assessment using Heath Related Quality of Life in Affected CKDu Individuals; Concept Paper

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Abstract

Pandemics over the years have been a constant threat towards mankind, the most recent COVID-19 outbreak is no exception to this. With the emerging demand of treating the outbreak, majority of the frontline workers have been assigned towards helping out the COVID-19 affected patients leaving the others behind. However, over time several healthcare practitioners have been using alternative forms of patient assessment tools. Heath Related Quality of Life (HRQOL) is one of the commonly used tools that have been widely used across Europe and America, using these, patients can self-evaluate their own conditions without requiring the assistance of a doctor. This paper focuses provides a conceptual framework that can be followed for quality of life assessment in chronic kidney patients using the Kidney Disease Quality of Life (KDQOL) questionnaire.

Keywords: COVID-19; Quality of Life Assessment; Kidney Disease

Abbreviations: HRQOL: Heath Related Quality of Life; KDQOL: Kidney Disease Quality of Life; NHP: Nottingham Health Profile; WHOQOL: World Health Organization Quality of Life Scale (WHOQOL-100). Accordingly, SF-36 is the method used more often for assessing HRQOL in a more general view.

Introduction

Heath Related Quality of Life (HRQOL) is defined as the awareness of an individuals' status in life and his/her relationship with the surroundings he/she lives. HRQOL is becoming a significant tool in patients suffering from chronic diseases in order to evaluate the responses of a treatment and adjust the treatment options based on individuals' physical, emotional and social requirements. HRQOL is assessed in patients though different types of assessing methods namely, the Dartmouth COOP Functional Assessment Charts, Duke Health Profile, Health Assessment Questionnaire, Nottingham Health Profile (NHP), 12-Item Short Form Health Survey (SF-12), 36-Item Short Form Health Survey (SF-36), Sickness Impact Profile and the World Health Organization Quality of Life Scale (WHOQOL-100). Accordingly, SF-36 is the method which consists of 36 items which includes 8 subscales and 2 component scores and evaluates physical, mental and social well-being along with psychological state and general health using a set of standard questions. One such chronic disease which relies on QOL, specifically on the Kidney Disease Quality of Life (KDQOL) is the Chronic Kidney Disease (CKD). CKD is a condition where there is a progressive kidney failure through five important stages that are named from stage one to five which usually results due to common causes like diabetes and hypertension or otherwise due to aging and obesity and results in complications like hyperlipidemia, cardiovascular risk, anemia, decreased quality of life, premature mortality and metabolic bone disease.
The specific type of questionnaire used to assess CKD is called the KDQOL-SF which includes the questions of SF-36 along with a set of chronic kidney disease specific dimensions. It contains 12 scales to describe 43 items which includes the symptoms, effects of kidney disease, burden of kidney disease, work status, cognitive function, quality of social interaction, sexual function, sleep, Social support, dialysis staff support, overall health and patient satisfaction. Thus, the state and effect of CKD can be deeply assessed based on the personal perspective of each patient.

Some studies have already proven that KDQOL-SF is a worthy tool, for example a study by Senanayake, et al. used a modified version of a KDQOL questionnaire at renal clinics in Polonnaruwa and concluded that the questionnaire is a valid and reliable method of assessing CKD patients in Sri Lanka. Another research by Cruz, et al. concluded that CKD patients show a decreased QOL in early stages of disease but the association between QOL and each stage of CKD is unpredictable.

But since early 1990s, CKD irrelated to its’ general causes have been noticed in some regions of Sri Lanka, specifically in the North Central Region and it is termed as the Chronic Kidney Disease of unknown etiology (CKDu). The possible causes are still in research and some scientists have suggested the probable factors to be nephrotoxins like heavy metals (cadmium), bacterial toxins (cyanotoxin) and fungal toxins (Ochratoxin A) that are found in the agricultural lands and contaminated water bodies.

Unlike CKD, CKDu is a condition which is asymptomatic during the initial stages and shows symptoms like fatigue, panting, loss of appetite, nausea, hypertension and edema only at the latter stages of disease, due to this finding a cure for this disease is complicated. Thereby patients are treated for the signs and symptoms only. And to our knowledge, there is no data on the reliability on KDQOL for assessing CKDu like CKD is being assessed.

Therefore, in this cross-sectional study, the use of KDQOL for assessing CKDu is tested using a KDQOL questionnaire so that if the QOL of these CKDu patients is associated with their disease, then KDQOL can be used to monitor and treat these patients in an efficient and cost-effective manner.