



ORIGINAL RESEARCH PAPER

Physiotherapist

HEALTH RELATED QUALITY OF LIFE IN END STAGE RENAL DISEASE (ESRD) AND CHRONIC KIDNEY DISEASE (CKD) PATIENT: A REVIEW

KEY WORDS: Chronic Kidney Disease, Assessment, Health-related Quality Of Life, Diagnosis.

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ABSTRACT

Patients with Chronic Kidney Disease (CKD) endure compromised health-related quality of life (HRQOL). Although the link between HRQOL and increased mortality in ESRD patients is well documented, less is known about the relationship between CKD and HRQOL. Various co-morbid conditions related to CKD play a substantial role in the impaired HRQOL in CKD. Hypertension, both a cause and complication of CKD, negatively affects HRQOL due to associated co-morbidities, side effects from anti-hypertensive medications and awareness of the diagnosis. This review focuses on health related quality of life in end stage renal disease and chronic kidney disease. From the review of literature, it can be concluded that HRQOL declines with advanced stages of chronic kidney disease. The finding of different HRQOL scores among CKD patients support the need to individualize the concept of HRQOL, so that the crucial aspects of life can be assessed in our patients and integrate these domains into a comprehensive plan of care. The assessment of HRQOL early in disease course will help to identify high-risk CKD patients to whom modifying factors may help them to lead an active and healthy life. To maintain the well-being and functional capacity of CKD patients attention should be directed towards maintaining strength and aerobic fitness as well as focusing on renal function and anemia or other comorbidities

BACKGROUND

Health-related quality of life (HRQOL) assumes an increasing importance as a marker of treatment quality in many chronic diseases. Its evaluation allows the quantification of the diseases consequences according to the patient's subjective perception and enables adjustment of medical decisions to their physical, emotional and social needs (Eiser C (2007) et al)⁽¹⁾. It also improves the adherence to the therapeutic plan, the quality of the health care provided and the patient survival. The multiple limitations and complications of patients in advanced stages of chronic kidney disease (CKD) or under renal substitution treatment can contribute to this Quality of life (QOL) impairment. Diverse psychometric tests have been designed and validated to evaluate health-related QOL (Fructuoso M (2011) et al)⁽²⁾.

HRQOL in patients with advanced CKD is significantly impaired and is an important indicator of future mortality. Conditions like malnutrition, anemia, cognitive dysfunction, depression, sleep disorders, reduced social interaction, decreased physical and sexual functioning and co-morbidities like diabetes and cardiovascular disease impair HRQOL in CKD patients⁽³⁾⁽⁴⁾⁽⁵⁾. There is a need to develop strategies to identify accurately 'high risk' subjects who may benefit from preventive measures before complications occur.

A relationship between CKD stage and HRQOL has been reported in few studies. It is observed that patients with moderate to advanced renal insufficiency have a reduced quality of life and an increased frequency and severity of both symptoms and psychological distress, with the magnitude of these changes negatively correlated with GFR (Rocco MV (1997) et al)⁽⁶⁾. Health-related quality of life is substantially lower for people with CKD than for the general population, and falls as GFR declines. Moreover high glomerular filtration rate, high baseline QOL score, and low body mass index are associated with good follow-up QOL scores (Lima H.J (2016) et al)⁽⁷⁾.

Suk Jeong Lee (2015) et al⁽⁸⁾ compared health-related quality of life in patients with early to mid-stage chronic kidney disease and results of the study suggest that more effective management programs are needed to improve health-related quality of life in patients at all stages of chronic kidney disease. The advanced

stages of CKD were associated with lower scores in one or more HRQOL subscales. Identifying these factors will inform the timely implementation of interventions to improve the quality of life of these patients (Edward Zimbudzi (2016) et al)⁽⁹⁾.

The patient's psycho-emotional state is another aspect that should be taken into account when assessing a person with CKD. Because HRQOL is a multidimensional concept, in which the psychological state of the individual plays an important role, problems such as depression or anxiety have a big impact on HRQOL. Recent studies reveal that the psychosocial constructs that are more closely associated with HRQOL are stress, affection and cognitive evaluation. Therefore, it is very important to identify these states of anxiety and depression in patients with CKD to make it possible to treat them appropriately and systematically and thorough evaluation of the psycho-emotional state is recommended as an integral part of the treatment offered to optimize quality of life. Studies would be necessary to assess HRQOL in the presence of affective disorders such as anxiety or depression (Ana Rebollo (2017) et al)⁽¹⁰⁾.

In the literature, the impact of anemia on QOL in CKD is well described from the pre-dialysis CKD phases through ESRD. It is found that a greater number of comorbidities were associated with older age, diabetes and unemployment or retired status. Some reports have suggested that the presence of comorbidities is a major determinant of a decline in QOL. Diabetes mellitus has also been associated with low QOL (Maria Carolina Cruz (2011) et al)⁽¹¹⁾. A growing number of scientific studies have identified benefits of physical activity for patients with chronic kidney disease including: increase of exercise tolerance; reduction of inflammatory mediators; increase of synthesis and decrease in muscle protein degradation; increase of number and size of muscle fibers, thus increasing muscle strength; increase of hematocrit and hemoglobin. Central effects also occur: improve of left ventricular function, decrease in occurrence of cardiac arrhythmias, besides beneficial effects on risk factors for coronary artery disease (hypertension, lipid disorder) (Tomich GM (2014) et al)⁽¹²⁾.

Therefore, literature review reveals that more or less expected the primary goal is to treat patients, and the aim is to improve

psychological and social domains of health. These domains are greatly influenced by a person's experiences, beliefs, expectations and perceptions. This interest reflects a more "holistic" approach of health. It represents contemporary attempt to improve both physical and mental health status. Since complete cure does not always represent a realistic goal, as in the case of chronic diseases like CKD, possible ways to assess and improve HRQOL gain increasing importance. This need to estimate QOL in various diseases, led to the development of numerous disease specific instruments and the most commonly used variant in CKD patients is the kidney disease quality of life short form (KDQOL-SF) questionnaire. The incorporation of physical therapy as a part of routine treatment plan is successful in improving physical function, aerobic and muscle strength and quality of life

CONCLUSION

The review indicates that HRQOL declines with advanced stages of CKD. Various techniques and methods have been adopted to assess the health related quality of life in chronic kidney diseases as seen in literature review. Socioeconomic and psychosocial parameters have a major impact on HRQOL in underprivileged populations. Steps such as anemia correction and patient-centered health education could potentially improve the quality of life. Employment loss resulting from disease could be tackled by strengthening the social security measures and job retraining to suit the physical effects of the disease. Understanding the sociocultural environment of the patient is extremely important for effective health care delivery. A better understanding of HRQOL and its determinants would help to formulate individualized treatment strategies. Physiotherapy can provide significant improvement in the quality of life and physical capacity of CKD patients

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