

Bio-psychosocial perspective of excessive fluid overload

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Introduction

It is a well-recognised phenomenon that many patients with end stage renal disease (ESRD) find it extremely challenging to adhere with what can - for some - be a very tight fluid restriction (Tsai et al 2014). What makes a patient arrive for haemodialysis treatment with a fluid overload >4 litres can seem to us as Registered Nurses (RNs) hard to fathom. We do, however, have a professional responsibility to try to understand the causes behind this and determine how we can best help these patients.

Objective

The objective of this empirical study was to explore the multi-factorial problem of excessive fluid overload in patients with ESRD undergoing maintenance haemodialysis therapy. With the support of a literature review, the goal was to try to establish an interconnection between the theoretical evidence and the practical reality of over-hydration in a group of patients in the hope that their excessive fluid overload could be discussed, addressed and in order to better understand the factors that can act as facilitators or as barriers when encouraging patients to adhere to their fluid restrictions.

Methods

60 patients undergoing haemodialysis treatment for >3 months, three times per week for four hours per treatment were included in the study which was conducted over a 4 week period. The study cohort was divided into two groups. Group 1 (n=17) included patients with persistent problems with fluid management between treatments and who exhibited weight gains exceeding >5% of dry body weight. The group 2 (n=43) included patients who were deemed "to have a stable fluid balance". This study was conducted based on the Kidney Disease Quality of Life Short Form (KDQOL-SF1.3) self-report questionnaires and data was also obtained from medical records which addressed details such as gender, age, occupation and urine output. It also included an open answer question where patients could write comments regarding the effects of ESRD in their daily life.

Results

Group 2 (Graph 2) indicated having a better quality of life than the group 1 (Graph 1) in terms of their self-assessment. Group 2 obtained higher scores meaning a greater quality of life. Overall, this study has shown that the participants perceived renal failure as a burden in their lives and that ESRD negatively affects their lives. For both groups, the burden of kidney disease attained the lowest scores, with group 1 scoring 13% and with group 2 scoring 37%. In terms of sexual function, group 1 scored 31% and group 2 scored 46%. The patients described this aspect as interfering not just with their social lives, but also on their relationships and sexual lives. Another impact related to fatigue, in which one of the comments in the open answer question was "dialysis days are pretty much a wash-out because I am often so tired after treatment that I do not want to socialise or do anything". Lindberg (2010) confirms that this situation has also been associated with fluid management.

Conclusion

Patients are aware of the need to adhere to their fluid allowance; however, an ambivalence seems to exist between fluid intake and restriction, often generating a treatment-related stressor. We have concluded that renal failure has a negative impact for the patients with a heavy treatment burden, often experience depression as a common psychological consequence (Jennifer & Thomas, 2012). This has distinctive impact on patients with persistent over-hydration compared to patients who are more adherent to their fluid allowance and could be considered a barrier to adherence to fluid restrictions. Nurses working with these patients are in a prime position to identify patients who are exhibiting signs of treatment related stressors, so that plans of care can be tailored accordingly.

References

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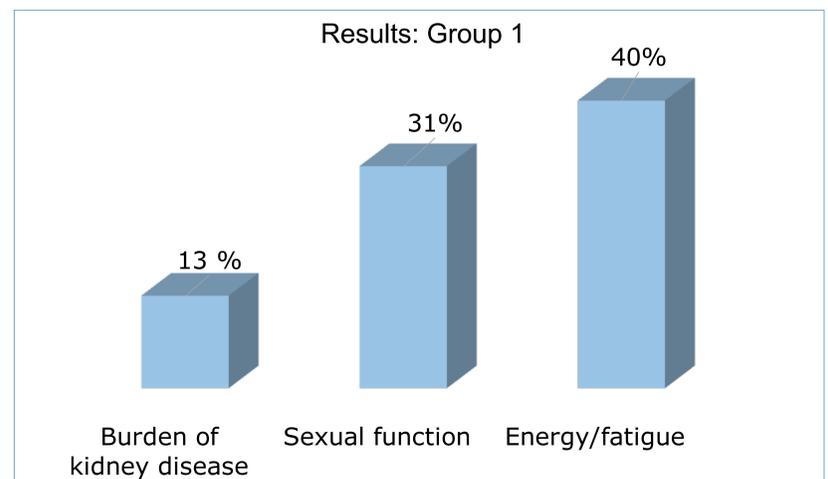


Figure 1: Percentage quality of life

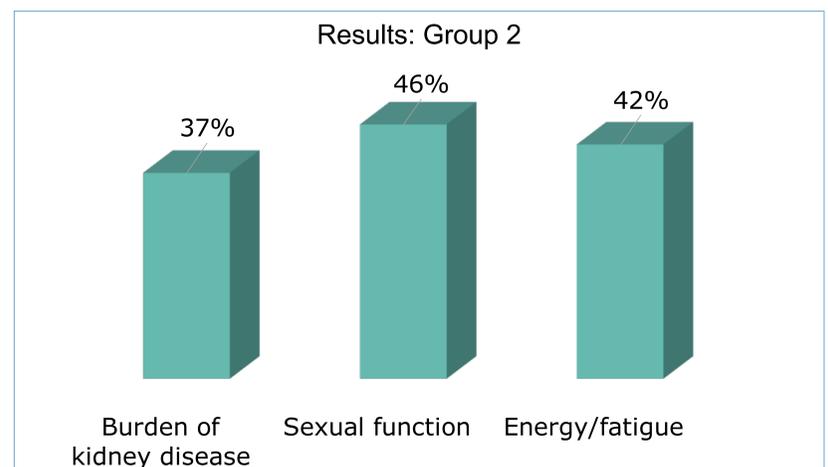


Figure 2: Percentage quality of life