**Sleep Quality Negatively Impacts Quality of Life in Non-Dialysis Dependant Chronic Kidney Disease Patients**

**Introduction**

Sleep quality is important in maintaining an optimal homeostatic state. In individuals undergoing dialysis, reduced sleep quality is associated with higher morbidity and mortality rates, and more frequent hospitalisations. Sleep complaints are also common in non-dialysis chronic kidney disease (CKD), but there is limited research to identify whether ‘poor’ sleep quality has an impact on health-related quality of life (HRQoL) in this population. Therefore, the aim was to investigate the role of sleep quality on HRQoL in non-dialysis CKD.I

**Methods**

Sleep quality and HRQoL were assessed in 24 stable non-dialysis CKD patients (57 ± 18yrs. eGFR: 44 ± 27ml/min/1.73m2). The Pittsburgh Sleep Quality Index measured sleep quality, providing a global score between 0 – 21: ‘poor’ sleep was classified as a score of ≥5, and ‘good’ sleep as ≤4. The Functional Assessment of Chronic Illness Therapy (FACIT) was used to measure HRQoL. The FACIT provides independent scores for physical, social/family, emotional, and functional well-being. Combined, these scores provided a total composite measurement of HRQoL (FACT-G), while an additional section provides a score to including the contribution of fatigue (FACIT-T). A further composite score (FACIT-TOI) for physical/functional outcomes was calculated as the product of the physical, functional and ‘fatigue’ sections. Higher scores for the scales indicated better HRQoL. Age and sex were used as covariates.

**Results**

Poor sleep quality was reported in 63% of the study population. HRQoL scores were overwhelming higher in those reporting a sleep score of ≤4 (‘good’ sleepers), compared to individuals classified as ‘poor’ sleepers. The mean score for FACIT-T was 18% lower in ‘poor’ sleepers compared to ‘good’ sleepers (p =.04) and the FACIT-TOI was 20% lower (p =.036). ‘Poor’ sleepers also scored 14% lower in FACT-G but this was non-significant (p =.082). A strong negative relationship was found between the Sleep Quality Index score and all sub-scales (Table 1).

Table 1. Pearson Product-Moment Correlations of sleep quality and HRQoL

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| --- | --- | --- | --- |
|  | **FACT-G** | **FACIT-T** | **FACIT-TOI** |
| **Sleep Quality Index** | -.512\* | -.534\*\* | -.513\* |

 *\*p <05, \*\*p <.01*

**Key Conclusions**

A high proportion of CKD patients were classified as ‘poor’ sleepers, and ‘poor’ sleep was associated with a reduction in overall physical, social, emotional, and functional HRQoL. Unsurprisingly, ‘poor’ sleepers reported greater fatigue-related symptoms (e.g., feeling ‘washed out’) and greater fatigue doing daily activities, including eating and socialising. Overall, sleep quality is an important aspect of disease burden in CKD. Efforts to improve sleep quality could reduce fatigue, improve HRQoL and lead to better outcomes.