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P152 -DIFFERENCES IN SYMPTOM BURDEN AND THE IMPACT ON PHYSICAL FUNCTION ACROSS PRIMARY AND SECONDARY CARE CKD POPULATIONS

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Purpose: CKD patients suffer with a high symptom burden which affects physical function, however there is a limited knowledge of which symptoms affect patients in different populations. This study primarily aimed to describe the differences in symptom burden of non-dialysis CKD patients across primary and secondary care. A secondary aim was to investigate which symptoms most impact physical function.

Methods: Self-reported symptoms of 376 primary care CKD patients [64% females, mean age 75.2 (SD: 9.7) years, eGFR, 47.8 (SD: 10.1) ml/min/1.73m²] and 208 secondary care CKD patients [36% female, mean age 56.8 (SD: 16.7) years, eGFR, 40.5 (SD:26.6) ml/min/1.73m²] were assessed using the recently validated Kidney Symptom Questionnaire (KSQ). The 13 symptoms were classified into binary variables (i.e. apparent: at least once per week or non-apparent) and scored on a 4-point Likert scale, with a maximum symptom burden score of 52. Linear regression was used to determine the association between individual symptoms and physical function, measured using the Duke Activity Status Index (DASI), scored from 0 to 58.2 with higher scores denoting higher physical function.

Results: In order of prevalence, the top five most common symptoms in primary care were: 1) 'Feeling tired' (87%); 2) 'Bone/joint pain' (76%), 3) 'Polynocturia' (73%); 4) 'Cramp/muscle stiffness' (72%) and 5) 'Sleep disturbance/insomnia' (70%). In secondary care the top 5 symptoms in order of prevalence were: 1) 'Feeling tired' (89%); 2) 'Polynocturia' (76%); 3) 'Cramp/muscle stiffness' (76%); 4) 'Sleep disturbance/insomnia' (71%); 5) and 'Feeling cold' (67%).

The overall mean total symptom score was 21.2 (SD: 11.6), in primary care 20.7 (SD: 10.9) and in secondary care 22.0 (SD: 12.7) out of a possible 52. The overall mean DASI was 35.3 (SD: 16.4), in primary care 34.4 (SD: 15.5) and in secondary care 37.0 (17.7).

Increasing symptom burden was significantly correlated with a lower level of physical function in the total population ($r=-0.459$, $p<0.001$) after adjusting for age, gender and eGFR, in primary care ($r= -0.381$, $p<0.001$) and in secondary care ($r=-0.577$, $p<0.001$).

Loss of appetite ($\beta=-0.203$, $p=0.03$) was the greatest predictor of poor physical function in primary care even after adjusting for age, gender, eGFR and other symptoms. In secondary care, poor concentration was the greatest predictor of poor physical function ($\beta=-0.193$, $p=0.055$).

Conclusions: Patients with non-dialysis CKD suffer from numerous symptoms which have a negative impact on physical function. Although these symptoms are similar in primary and secondary care populations, 'bone/joint pain' affect primary care patients more perhaps due to the increased age in this population.

Although, conclusions are limited due to the self-reported nature of the DASI and the KSQ, the results of the study show that loss of appetite was the greatest symptom predictor of poor physical function.

Interestingly, this symptom was not commonly reported. Whilst increasing age was an overall larger predictor of poorer physical function, due to the multi-collinearity of appetite with other symptoms, appetite may be acting as a proxy for total symptom burden.