O70 Changes in symptoms and function and associated factors among patients with chronic kidney disease: Latent transition analysis

Zhuting Zheng[1], Guoxiang Liu[2], Bei Yun[1], Tian Jin[1], Jingting Wang[3], Changrong Yuan[1]

[1]School of Nursing, Fudan University, Shanghai, China. [2]Department of Nursing, The People's Liberation Army Naval Characteristic Medical Center, Shanghai, China. [3]School of Nursing, Naval Medical University, Shanghai, China

Objective: To examine the transition in symptoms and function among patients with chronic kidney disease (CKD) and to identify the associated factors.

Methods: A total of 143 patients with CKD were recruited in this longitudinal study. Participants completed the PROMIS®-29 profile at three time points: newly diagnosed (T1), one month after diagnosis (T2), and two months after diagnosis (T3). Seven dimensions were evaluated, including five symptom domains (anxiety, depression, fatigue, sleep disturbance, and pain interference) and two function domains (physical function and the ability to participate in social roles and activities). Latent profile analysis (LPA) was used to classify the participants into latent classes. Latent transition analysis (LTA) was then conducted to explore class transitions over time. Logistic regression analysis was conducted to examine the associated factors.

Results: LPA identified two classes at T1 and T2, and three classes at T3 ($p < 0.0001$ for T1 and T2; $p = 0.0005$ for T3). Four main patterns of changes were observed from T1 to T2, and three main patterns from T2 to T3. From T1 to T2, the highest transition probabilities occurred from the group characterized by low symptoms and high function to the same group (74, 51.7%). Bidirectional transitions between the low-symptom/high-function group and the high-OOOsymptom/low-function group occurred at probabilities of 11.9% and 10.5%. From T2 to T3, the highest transition probabilities occurred from the high-symptom/low-function group to a group with high symptom, low function, and low pain interference (62, 43.4%). The transition probability from the high-symptom/low-function group to the group with high symptom, low function, and high pain interference was 14.7%, while the probability of remaining in the low-symptom/high-function group was 32.9%. These transitions were significantly associated with patient age, whether the hospital and place of residence were located in the same city, the presence of diabetes, and waist soreness.

Conclusions: Dynamic transitions of symptom and function among patients with CKD were observed across different time points. These transitions were associated with different factors. The findings highlight the importance of regular monitoring and personalized management to improve the quality of life in patients with CKD.