

Chronic Kidney Disease Self-Management: A Validation Study in Vietnamese Language

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Background

Chronic kidney disease (CKD) is one of the chronic diseases on the rise in both developed and developing nations, including Vietnam.^{1,2,3} Effective self-management behaviours are known to slow the progression of CKD; however to measure CKD self-management behaviours of people in Vietnam, translation and validation of an instrument is required.

Aim

To evaluate the validity and reliability of the Vietnamese language version of the CKD Self-management Instrument (CKD-SM).

Methods

Design: Test/re-test reliability study (re-test 14 days later)

Setting: Renal Department, Bach Mai hospital, Hanoi, Vietnam

Sample size: 158 adults participants with all stages of CKD

Instrument: The CKD-SM⁴ comprises 32-items with 4 point-Likert scale measuring self-integration, problem solving, social support, and adherence behaviours with CKD treatment. Total scores range from 32 to 128.

Translation and Validation process: Involved 4 steps prior to reliability testing.⁵ Both forward-translation and back-translation was done by two bilingual healthcare professionals. Then an expert panel reviewed the Vietnamese version of the CKD-SM (V.CKD-SM).

Results

- Expert panel content validity index score was high (0.98-1.0).
- Reliability testing involved 158 people (51.3% women), most were aged < 60 years (76.6%; range 18-84 years) with CKD stages 1, (5.7%), 2 (9.5%), 3A (3.8%), 3B (3.2%), 4 (9.5%) and 5 (68.3%).
- Level of education were primary school (24%), secondary school (41%), and high school 23% (Figure 1).
- V.CKD-SM scores ranged from 47 to 115 (M = 72.20, SD ± 10.17; Figure 2). Table 1 contains 3 highest and 3 lowest scoring items.
- Instrument reliability was good (Cronbach's alpha = 0.93).
- The internal structure of the V.CKD-SM was analysed by using the extraction method (KMO value = 0.84, Bartlett's test of sphericity $\chi^2 = 2770.3$, $p < 0.01$) indicating adequacy and sphericity of the sample.
- Type of occupation affected level of self-management more than gender, age or level of education ($p < 0.01$).
- Re-testing (n = 52) showed good intraclass correlation coefficient (0.84, $p < 0.01$).

Conclusion

Vietnamese patients had moderate levels of CKD self-management behaviours. The V.CKD-SM is acceptable and feasible to measure whether self-management behaviours improve following patient education about CKD.

Figure 1: Level of Education (n=158)

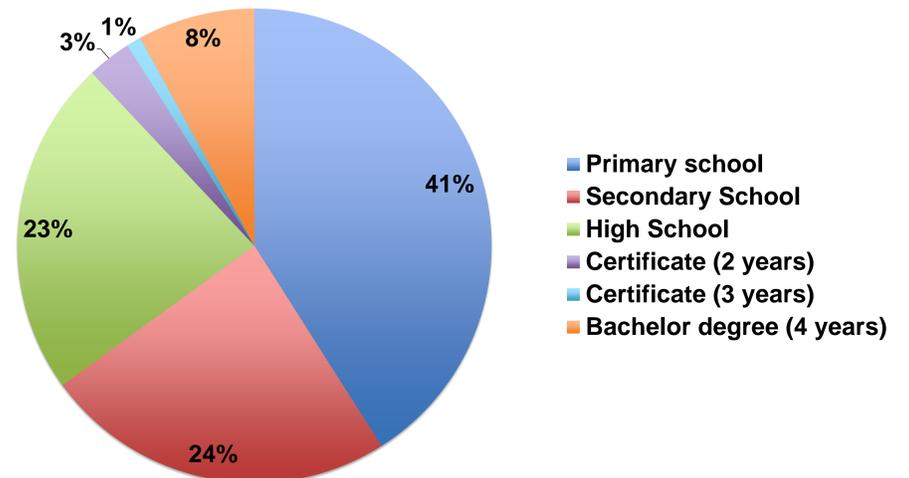
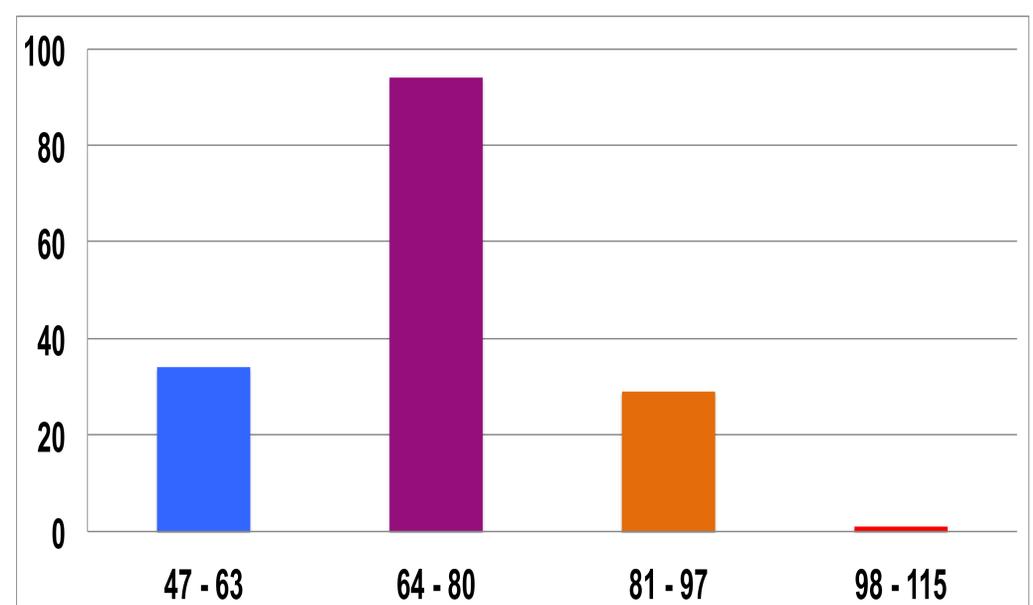


Table 1: V.CKD-SM highest and lowest responses results (n=158)

Items	4 point-Likert Scale*			
	1	2	3	4
8 I follow the diet which was recommended by doctors or nurses.	0	23	102	33
17 I follow doctors or nurses' recommendations about not smoking.	0	7	58	93
30 I take my medications as prescribed by doctors.	0	3	85	70
2 I will ask about the reasons which might cause the decrease of my kidney function.	76	68	11	3
5 I understand results of laboratory tests which were used to evaluate my kidney's function (For example: creatinine, eGFR).	104	50	4	0
29 I search for information about chronic kidney disease from different sources (for example internet, leaflet, manual, kidney disease patient peer group).	79	68	9	2

*Likert scale: 1=never, 2=sometimes, 3=often, 4=always

Figure 2: V.CKD-SM Scores* (n=158)



*Possible score range 32-128

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