Kidney Knowledge Survey: 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] Improving patient knowledge assists in slowing the progression of CKD. However, there is a lack of a valid and reliable instrument in Vietnamese language to measure patient knowledge.

Aim

To evaluate the reliability and validity of the translated Kidney Disease Knowledge Survey (KiKS) in Vietnamese language.

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: English language KiKS[4] (E.KiKS) contains 28 items that measure the person's understanding of CKD including knowledge about preventing kidney function, treatment options, and common signs and symptoms of CKD. The items are scored as 1 = correct, or 0 = incorrect and scores range from 0 to 28.

Translation and Validation process: Involved 4 steps [see Poster 21] prior to reliability testing of the Vietnamese version of the KiKS (V.KiKS).

Results

- Content validity index score from expert panel was high (97%).
- Reliability testing involved 158 people (81 female and 77 male), most were aged < 60 years (76.6%; range 18-84 years) across all stages of CKD - stages 1, (5.7%), 2 (9.5%), 3A (3.8%), 3B (3.2%), 4 (9.5%) and 5 (68.3%).
- Level of education [See Figure 1, Poster 21].
- The majority of participants' occupation was classified as farmer (44%) (Figure 1).
- V.KiKS scores ranged from 11 to 23 (M = 17.67, SD ± 2.61; Figure 2) with most not knowing types of medications to avoid, what "eGFR" means, and symptoms associated with CKD. Table 1 contains the 5 highest and 5 lowest scoring questions.
- Instrument reliability of the V.KiKS was analysed by using the Kuder-Richardson-20 (KR-20). The KR-20 of the V.KiKS was 0.58 indicating acceptable reliability.
- Type of occupation affected level of kidney disease knowledge (p < 0.01) while gender, age, and level of education did not (p > 0.05).
- Re-testing (n = 52) revealed good reliability of the instrument (intraclass correlation coefficient = 0.82, p < 0.01).

Conclusion

Vietnamese patients had low levels of knowledge about CKD. The V.KiKs is quick and simple for patients to complete. The instrument can be used by clinicians and researchers to evaluate patient's knowledge particularly prior to and following CKD education programs.

Figure 1: Type of Occupation (n=158)

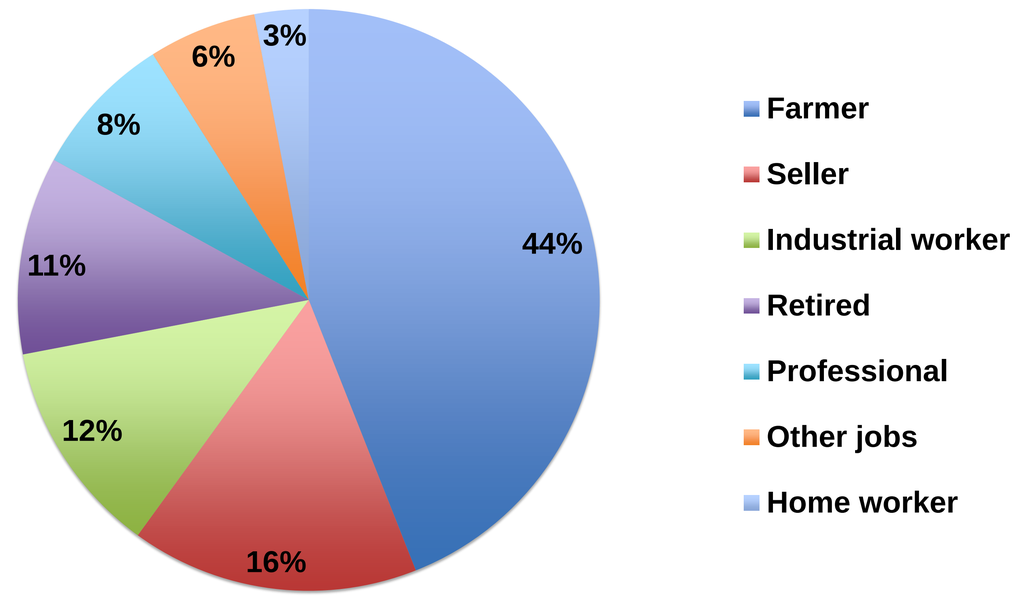
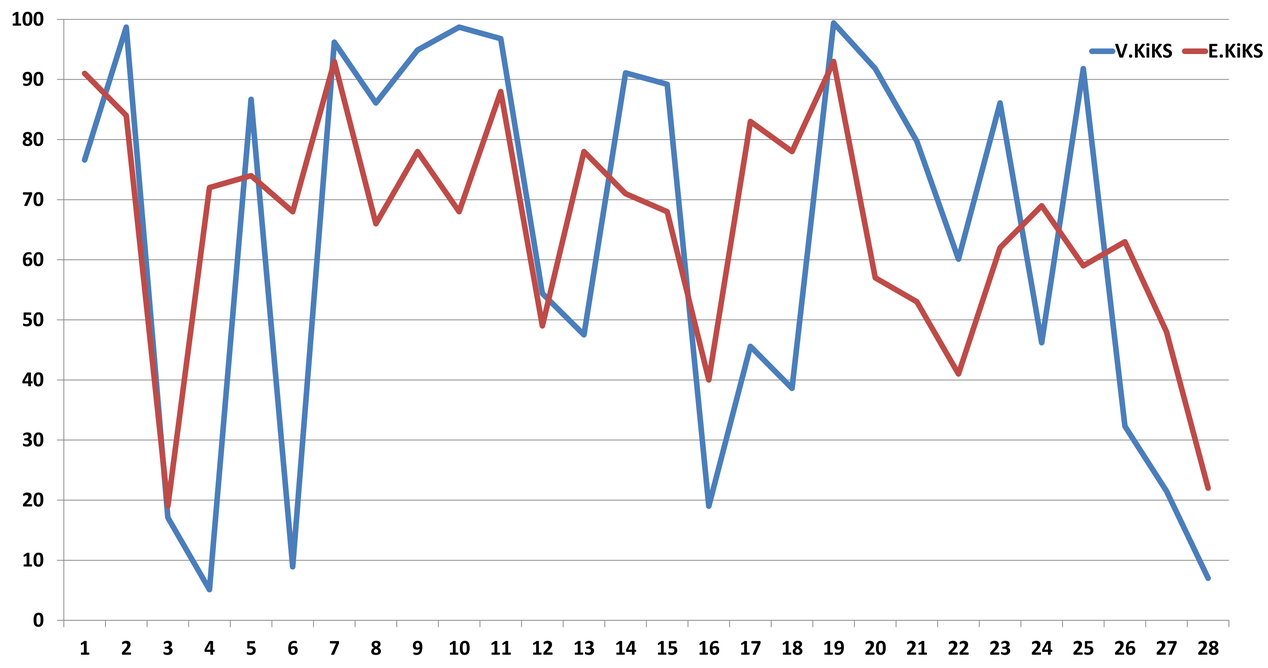


Table 1: V.KiKS highest and lowest responses results (n=158)

Items		Correct	Incorrect
2	Are there certain medications your doctor can prescribe to help keep your kidney(s) as healthy as possible?	156	2
9	Does CHRONIC kidney disease increase a person's chances for death from any cause?	150	8
10	Does the kidney make urine?	156	2
11	Does the kidney clean blood?	153	5
19	Increased fatigue?	157	1
3	Why is too much protein in the urine not good for the kidney?	27	131
4	Select the ONE MEDICATION from the list below that a person with CHRONIC kidney disease should AVOID:	8	150
6	What does "GFR" stand for?	14	144
16	Does the kidney help keep blood sugar normal?	30	128
28	No symptoms at all?	11	147

Figure 2: Comparison V.KiKS and E.KiKS[4] correct items (%)



** Possible range from 0 to 100%*

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