

Validation of an instrument measuring primary health care users' opinion about abilities, skills and competencies of their family physicians in Kosovo

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Abstract

Aim: Our aim was to validate an international instrument addressing family physicians' competency level from the primary health care users' perspective in transitional Kosovo.

Methods: A sample of 98 primary health care users aged ≥ 18 years was interviewed in Kosovo in December 2012 (42 men and 56 women; mean age: 53 ± 11 years). Participants were asked to self-assess the level of abilities, skills and competencies of their respective family physicians regarding different domains of quality of health care. The questionnaire included 37 items pertinent to six subscales/domains. Answers for each item of the instrument ranged from one ("novice" physicians) to five ("expert" physicians). An overall summary score (range: 37-185) and a subscale summary score for each domain were calculated for all participants. Demographic and socioeconomic data were also collected. Cronbach's alpha was used to assess the internal consistency of the tool, and Mann-Whitney U test was used to compare mean scores for the overall scale and each subscale between men and women.

Results: Internal consistency of the overall scale was Cronbach's alpha=0.88; it was similar in men and women (0.88 vs. 0.89, respectively). The overall summary score of the instrument was 88.9 ± 8.8 ; it was somehow higher in women than in men (90.1 ± 9.3 vs. 87.3 ± 7.8 , respectively, $P=0.069$). There were no statistically significant differences in the subscale summary scores between men and women, except for the "patient care and safety" ($P=0.049$). There was a weak inverse correlation of the overall summary score with age, but a positive correlation with educational attainment.

Conclusion: This pilot study provides useful evidence about the cross-cultural adaptation of an international instrument measuring patients' self-perceived level of skills and

competencies of their family physicians regarding important aspects of the quality of primary health care services in Kosovo.

Keywords: abilities, competencies, cross-cultural adaptation, family physician, general practitioner, Kosovo, primary health care, quality of care, skills, validation.

Introduction

It has been extensively reported that abilities, skills and competencies in quality improvement are vital for general practitioners and family physicians in order to foster and improve patient care (1). From this point of view, it has been argued that for medical doctors, precise roles, abilities, skills and competences should be defined and specifically designed at all training levels including also continuing medical education (1,2). Such roles and competences have been already classified in frameworks (CanMEDS – Canadian Medical Education Directives for Specialists Roles Framework [2,3]), Tomorrow Doctor's at the UK (4) and the six core competences identified and described by the Accreditation Council for Graduate Medical Education (ACGME competencies) [5].

As reported previously, competency models can additionally serve as a useful self-evaluation tool for general practitioners and primary care physicians committed to practice-based learning (1,6,7) who want to improve the quality of care they provide, evaluate their clinical skills and experience, with the ultimate goal of integrating and including the eventually improved knowledge and skills into their daily practice with patients (1,8).

Nevertheless, it is a crucial point to develop valid instruments aiming to assess patients' opinions and perceptions about abilities, skills and competencies of their family physicians and general practitioners (8). Very little is known about abilities, skills and competencies of health care personnel (including family physicians) in transitional countries of the Western Balkans including Kosovo, which emerged as the newest state of Europe after ten years under United Nations' administration following a devastating war in the region. In this context, our aim was to validate an international tool (developed with the support of the European Community Lifelong Learning Program) addressing family

physicians' competency level from the primary health care users' perspective in post-war Kosovo.

Methods

A convenient sample of 98 primary health care users in Kosovo aged ≥ 18 years was interviewed in December 2012 (42 men and 56 women; mean age: 53 ± 11 years). Study participants were asked to assess, from their perspective, the level of abilities, skills and competencies of their respective family physicians about the following aspects (referred to as *domains*) of primary health care:

- Patient care and safety (eight items);
- Effectiveness and efficiency (seven items);
- Equity and ethical practice (eight items);
- Methods and tools (five items);
- Leadership and management (four items), and;
- Continuing professional development (five items).

Answers for each item of each subscale ranged from one ("novice"= physicians have little or no knowledge/ ability, or no previous experience of the competency described and need close supervision or instruction) to five ("expert"=physicians are the primary sources of knowledge and information in the medical field).

An overall summary score (including 37 items; range: 37-185) and a subscale summary score for each domain were calculated for all participants. Demographic and socioeconomic characteristics included age, sex and educational attainment.

Cronbach's alpha was used to assess the reliability (internal consistency) of the full scale (37 items) and each of the six subscales, separately in men and in women. Conversely, Mann-Whitney U test was used to compare the mean scores for the overall scale and each subscale between men and women.

Results

Mean age was similar in men and women who participated in the cross-cultural adaptation of this international instrument in the Kosovo setting. Furthermore, educational level was similarly distributed in both sexes (data not shown in the tables).

Reliability (the internal consistency) of the overall scale (37 items) was Cronbach's alpha=0.88; it was similar in men and women (0.88 vs. 0.89, respectively) [Table 1]. Reliability coefficient (Cronbach's alpha) ranged from 0.82 for the "leadership and management" domain to 0.90 for

the "patient care and safety" and "continuing professional development" subscales. In men, reliability (internal consistency) was the lowest for the "leadership and management" subscale (Cronbach's alpha=0.68), and the highest for the "equity and ethical practice" domain (Cronbach's alpha=0.91). On the other hand, in women, the lowest internal consistency (reliability coefficient) was evident for the "equity and ethical practice" subscale (Cronbach's alpha=0.83), whereas the highest (reliability coefficient) was exhibited for "continuing professional development" domain (Cronbach's alpha=0.94) [Table 1].

Table 1. Internal consistency of the instrument assessing primary health care users' perceptions on competencies of their family physicians in Kosovo, 2012

Domain (subscale)	Men (N=42)	Women (N=56)	Overall (N=98)
Overall scale (37 items)	0.88 (0.81-0.92)*	0.89 (0.84-0.93)	0.88 (0.85-0.91)
Patient care and safety (8 items)	0.86 (0.78-0.91)	0.92 (0.89-0.95)	0.90 (0.87-0.93)
Effectiveness and efficiency (7 items)	0.82 (0.73-0.89)	0.92 (0.88-0.95)	0.89 (0.85-0.92)
Equity and ethical practice (8 items)	0.91 (0.86-0.94)	0.83 (0.75-0.89)	0.87 (0.82-0.91)
Methods and tools (5 items)	0.82 (0.71-0.89)	0.84 (0.77-0.90)	0.83 (0.78-0.88)
Leadership and management (4 items)	0.68 (0.49-0.82)	0.87 (0.81-0.92)	0.82 (0.76-0.87)
Continuing professional development (5 items)	0.79 (0.67-0.88)	0.94 (0.92-0.96)	0.90 (0.87-0.93)

* Cronbach's alpha and their respective 95% confidence intervals (in parentheses)

The overall summary score of the instrument was 88.9 ± 8.8 ; it was somehow higher in women than in men (90.1 ± 9.3 vs. 87.3 ± 7.8 , respectively, $P=0.069$) [Table 2]. There were no statistically significant differences in the subscale summary scores between men and women, except for the "patient care and safety" where the mean score was significantly higher in men than in women (22.4 ± 3.0 vs. 23.2 ± 4.2 , respectively; $P=0.049$).

There was evidence for a weak inverse correlation of the overall summary score with age, but a positive correlation with educational attainment (data not shown in the tables).

Discussion

We conducted a cross-cultural adaptation of an international instrument (self-administered questionnaire) for assessment of family physicians'

competency level from primary health care users' perspective/ viewpoint in the context of Kosovo, a country in rapid transition towards a functional democracy.

Overall, this recently developed instrument showed a rather satisfactory reliability (internal consistency) in this convenient sample of primary health care users in Kosovo. The overall reliability of the instrument was similar in men and women, a finding which differs from a fairly recent study from Albania, where the internal consistency of the same tool was reported to be higher in women compared to men (9). In the Albanian validation study, the internal consistency of the instrument was higher for all of the subscales in women compared with men (9). In the Kosovo sample we did not obtain evidence of a clear sex difference, at least for the overall reliability coefficient (internal consistency)

Table 2. Summary score of each domain (subscale) of the measuring instrument by sex

Domain (subscale)	Overall (N=98)	Sex-specific		
		Men (N=42)	Women (N=56)	P [†]
Overall scale (score range: 37-185)	88.9±8.8 [*]	87.3±7.8	90.1±9.3	0.069
Patient care and safety (score range: 8-40)	22.9±3.7	22.4±3.0	23.2±4.2	0.049
Effectiveness and efficiency (score range: 7-35)	14.3±2.7	14.2±2.3	14.5±3.0	0.240
Equity and ethical practice (score range: 8-40)	16.2±2.4	16.1±2.6	16.4±2.3	0.257
Methods and tools (score range: 5-25)	10.2±1.8	10.0±1.8	10.4±1.9	0.572
Leadership and management (score range: 4-20)	11.2±2.0	10.9±1.6	11.4±2.3	0.082
Continuing professional development (score range: 5-25)	14.0±2.6	13.8±2.1	14.2±2.9	0.144

^{*} Mean values ± standard deviations.

[†] P-values from Mann-Whitney U test.

which was similar in both sexes. Nonetheless, similar to the previous report from Albania (9), there was evidence of a higher internal consistency for most of the subscales/ domains of the instrument. Conversely, the “equity and ethical practice” subscale showed a higher internal consistency in men than in women, a finding which requires caution and careful exploration in future studies involving the same measuring instrument in Kosovo settings.

In our study, interestingly, the overall summary score of the instrument was higher in women compared to men, a finding which nevertheless was borderline statistically significant. Furthermore, the inverse (negative) relationship with age should be addressed in future studies in Kosovo and similar settings.

As we have reported earlier, the current instrument assessing patients’ perceptions about the level of competency and abilities of their family physicians was designed in line with the Quality Improvement Competency Framework (QICF) which has been developed in the course of a systematic consensus study carried out among European primary care experts interested or specializing in quality improvement (1,9). As stated elsewhere, the QICF involves six domains compatible with the current instrument employed in the cross-cultural adaptation exercise for assessment of patient’s perceptions about the competencies of their general practitioners in

Kosovo: “patient care and safety”, “effectiveness and efficiency”, “equity and ethical practice”, “methods and tools”, “leadership and management”, and “continuing professional education” (1,9). Each domain in turn reflects an important area of medical care which constitutes a routine primary health care practice and requires reflexion and assessment with the ultimate goal of improving the patient care (1,9).

In conclusion, we validated a useful instrument in the Kosovo population, measuring patients self-perceived level of abilities, skills and competencies of their family physicians regarding some important domains of primary health care services.

After the pre-test phase (i.e. the validation study reported in this article), this instrument is currently being administered to a large representative sample of primary health care users in different regions of Kosovo.

Source of support

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