

## Cross-cultural adaptation of a questionnaire about competencies of family physicians in Kosovo from practitioners' and policymakers' perspective

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### Abstract

**Aim:** Our aim was to validate an international instrument measuring abilities, skills and competencies of family physicians from practitioners' and policymakers' perspective in Kosovo.

**Methods:** A sample of 20 family physicians in primary health care services and 20 policymakers in the health sector was interviewed in December 2012 and subsequently re-interviewed in January 2013. A structured questionnaire, administered and subsequently re-administered after two weeks (test-retest) to all participants, assessed physicians' level of abilities, skills and competencies regarding different domains of quality of health care. The questionnaire included 37 items grouped into 6 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 score for each domain were calculated for the test and retest procedures. Cronbach's alpha was employed to assess the reliability (internal consistency) for both the test and the retest procedures, whereas Spearman's rho was used to assess the test-retest reliability (stability over time) of the tool.

**Results:** Among policymakers, the instrument exhibited a higher internal consistency (Cronbach's alpha was 0.97 for the test and 0.96 for the retest procedure) compared to family physicians (0.89 and 0.88, respectively). Subscale coefficients, however, were not very different in each group. In particular, the "patient care and safety" domain behaved similarly in both groups for the test and the retest procedure. Overall, stability over time of the instrument was slightly higher among policymakers (Spearman's rho: 0.87,  $P < 0.01$ ) compared to practitioners (Spearman's rho: 0.83,  $P < 0.01$ ). Except the "continuing professional development" domain, for all the other subscales, the test-retest reliability coefficients were higher among policymakers than practitioners.

**Conclusion:** Our findings point to an adequate internal consistency (for both the test and retest procedures) and stability over time (test-retest reliability) in this sample of family physicians and policymakers in Kosovo. From this perspective, this validation study provides useful evidence on cross-cultural adaptation of an international instrument measuring the level of competencies of family physicians in Kosovo. Seemingly, the instrument indicates a good potential for wide scale application to policymakers and especially to nationally representative samples of family physicians in transitional Kosovo.

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

## Introduction

In the past decade, there has been published a considerable amount of literature aiming to conceptualize, operationalize and define the quality of health care (1). Thus, quality of care, in general, is defined as “...the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge” (1). From this point of view, quality of health care must be in line with the public expectations which certainly relate to a good quality of health care services. This is especially true for the expectations and demands of the clinically-ill patients – salient features which put pressure upon health care professionals at all levels and require them to provide high quality health care services (2). This is particularly relevant for general practitioners and family physicians who, in most countries, serve as gatekeepers and exercise a multitude of functions related to health care service provision at a population level. For this very reason, quality improvement and performance evaluation have become core issues in health care practice, especially in industrialized countries. In order to deal with quality improvement, however, a basic prerequisite would be to include various topics pertinent to quality of health care services in different levels and layers of the medical curricula (2). From this standpoint, quality improvement topics should be included at all levels and aspects of medical education implying that medical students and practitioners should not only receive medical knowledge in the course of their studies and training, but should additionally acquire abilities, skills and competencies in the areas of quality improvement and quality assurance at large (2,3). It has been convincingly argued that in general practice/ family medicine, quality of health care includes different aspects of health care services and covers a wide range of practitioners’ scope of work referred to as “comprehensive/ holistic approach to health care provision” (2,4). Besides the traditional features, this wide array of scope of work of family physicians includes also management skills, community orientation, and various complex problem-solving skills and abilities to effectively and efficiently handle different tasks and duties pertinent to provision of high quality health care services (2,4).

Consequently, it is generally recognized that attitudes, abilities and competencies in quality improvement are vital for family physicians/ general practitioners in order to improve particularly patient care, but also health care services at a population level (2). Hence, different attempts have been established and undertaken aiming to design precise and detailed tasks, duties, roles, abilities, skills and competencies for medical doctors including also continuous professional development (which in the medical field is referred to as “continuous medical education”) [5]. Such tasks, duties and roles including specific competences are grouped into various frameworks (6-9). Models and frameworks of attitudes, abilities, skills and competencies are also considered as a useful instrument for self-assessment of primary health care physicians and practitioners committed to improve the quality of health care services they provide by integrating knowledge gained into their daily (routine) health care practice (10,11).

Yet, little evidence is available with regard to efforts, programs and activities aiming to improve the teaching quality and standards of medical curricula in European countries including also the transitional countries of the Western Balkans. In particular, there is scant evidence about the topics pertinent to teaching quality improvement, reflected in the structure, content and outcomes of both undergraduate and postgraduate medical curricula, as well as continuous medical education.

The information is especially scarce for Kosovo, a country which is currently undergoing a very difficult period of transition following a decade of war with Serbia. In this context, the aim of this cross-cultural adaptation survey was to validate an international instrument (developed with the support of the European Community Lifelong Learning Program) regarding self-perceived level of skills, abilities and competencies of family physicians from both practitioners’ and policymakers’ perspective in post-war Kosovo.

## Methods

A sample of 20 family physicians operating in primary health care services and 20 policymakers in the health care sector was interviewed in December 2012 (*test*) and subsequently re-interviewed in January 2013 (*retest*).

A structured questionnaire, administered and subsequently re-administered after two weeks (test-retest) to all participants, assessed family physicians' level of abilities, skills and competencies regarding different domains of quality of health care from the perspective of practitioners and policymakers, respectively. More specifically, family physicians were asked to *self-assess* their level of skills, abilities and competencies regarding the described domains of primary health care. Conversely, policymakers were asked to rate, from their perspective, the *required/desirable* level of skills, abilities and competencies of family physicians regarding the same domains of quality of care.

The questionnaire included 37 items grouped into the following six subscales/ domains of the quality of 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 (range: 37-185) and a subscale score for each domain were calculated for the test and the retest procedures.

Along with demographic information, data on job position and function (for policymakers), work experience (for both groups), specialization and involvement in teaching and training activities (for family physicians) were also collected.

Cronbach's alpha was employed to assess the reliability (internal consistency) for both the test and the retest procedures, whereas Spearman's rho was used to assess the test-retest reliability (stability over time) of the tool.

## Results

Table 1 presents the distribution of demographic factors and work characteristics in this study sample in Kosovo including 20 family physicians and 20 policymakers in the health care sector. Among policymakers (12 men and 8 women), median age was 44.5 years (interquartile range: 42.0-47.5 years). Among family physicians, (12 men and 8 women), median age was 49.0 years (interquartile range: 37.0-58.8 years). Forty percent of policymakers hold a working position in Pristine, whereas 60% operated in other regions of Kosovo. For family physicians, these figures were 30% and 70%, respectively. The median of working experience for family physicians was 19.0 years (interquartile range: 12.0-28.5 years),

**Table 1.** Distribution of demographic factors and work characteristics in a sample of family physicians and policymakers in the health sector, Kosovo, 2012-2013

Characteristics	Policymakers (N=20)	Family physicians (N=20)
<b>Age (years)</b>	44.5 (42.0-47.5)*	49.0 (37.0-58.8)*
<b>Sex:</b>		
Men	12 (60.0)†	12 (60.0)†
Women	8 (40.0)	8 (40.0)
<b>Region:</b>		
Pristine	8 (40.0)†	6 (30.0)†
Other regions	12 (60.0)	14 (70.0)
<b>Years of practice/position</b>	7.0 (3.3-8.0)*	19.0 (12.0-28.5)*
<b>Specialization:</b>		
General practitioner	-	13 (65.0)†
Specialist		7 (35.0)
<b>Position/function:</b>		
Director of health center	4 (20.0)†	
Coordinator of health programs	6 (30.0)	
Family medicine trainer/educator	3 (15.0)	
Other	7 (35.0)	
<b>Involvement in training activities:</b>		
No	-	15 (75.0)†
Yes		5 (25.0)

\* Median values and interquartile ranges (in parentheses).

† Numbers and column percentages (in parentheses).

whereas for policymakers it was 7.0 years (3.3-8.0 years). Among family physicians, 35% were specialized, whereas 65% were general practitioners. validation study. Among policymakers, the instrument exhibited a higher internal consistency (Cronbach's alpha was 0.97 for the test and 0.96 for

the retest procedure) compared to family physicians (0.89 and 0.88, respectively). Subscale coefficients, however, were not very different in each group. In particular, the "patient care and safety" domain behaved similarly in both groups for the test and the retest procedure (Table 2).

**Table 2.** Internal consistency of each domain (subscale) of the instrument for the test and the retest application in a sample of family physicians and policymakers in Kosovo

Domain (subscale)	Policymakers (N=20)		Family physicians (N=20)	
	Test	Retest	Test	Retest
<b>Overall scale (37 items)</b>	0.97*	0.96	0.89*	0.88
<b>Patient care and safety (8 items)</b>	0.89	0.89	0.88	0.87
<b>Effectiveness and efficiency (7 items)</b>	0.90	0.82	0.91	0.92
<b>Equity and ethical practice (8 items)</b>	0.96	0.91	0.92	0.90
<b>Methods and tools (5 items)</b>	0.89	0.91	0.87	0.91
<b>Leadership and management (4 items)</b>	0.89	0.78	0.77	0.81
<b>Continuing professional development (5 items)</b>	0.94	0.88	0.83	0.79

\* Cronbach's alpha.

Table 3 presents the test-retest reliability (stability over time) for each subscale of the instrument. Overall, stability over time of the instrument was slightly higher among policymakers (Spearman's rho: 0.87,  $P < 0.01$ ) compared to practitioners

(Spearman's rho: 0.83,  $P < 0.01$ ). Except the "continuing professional development" domain, for all the other subscales, the test-retest reliability coefficients were higher among policymakers than practitioners (Table 3).

**Table 3.** Test-retest reliability (stability over time) for each subscale of the instrument

Domain (subscale)	Policymakers (N=20)		Family physicians (N=20)	
	Spearman's rho	P-value	Spearman's rho	P-value
<b>Overall scale (37 items)</b>	0.87	<0.01	0.83	<0.01
<b>Patient care and safety (8 items)</b>	0.95	<0.01	0.92	<0.01
<b>Effectiveness and efficiency (7 items)</b>	0.85	<0.01	0.81	<0.01
<b>Equity and ethical practice (8 items)</b>	0.83	<0.01	0.77	<0.01
<b>Methods and tools (5 items)</b>	0.79	<0.01	0.74	<0.01
<b>Leadership and management (4 items)</b>	0.73	<0.01	0.69	<0.01
<b>Continuing professional development (5 items)</b>	0.80	<0.01	0.82	<0.01

## Discussion

This validation study provides valuable evidence about cross-cultural adaptation of an international instrument (questionnaire) measuring the level of skills, abilities and competencies of family physicians from both practitioners' and policymakers' perspective in the transitional population of Kosovo. As described previously, the design and development of this questionnaire on self-assessment level of skills, abilities and competencies of family physicians was aligned with the Quality Improvement Competency Framework (QICF) [2,10]. It must be pointed out that the QICF was developed in the course of a robust and methodical expert study involving European primary care experts interested or specializing in the area of quality improvement (2,10).

Overall, the international tool employed in this validation exercise exhibited a good internal consistency for both the test and the retest procedures in both samples included in the survey namely family physicians and policymakers of the health care sector. Particularly for the policymakers, the tool showed a very high internal consistency in both rounds of application. Nevertheless, among the policymakers, there were discrepancies in the reliability coefficients for the "effectiveness and efficiency" subscale (0.90 vs. 0.82 for the test and the retest procedures, respectively), "leadership and management" domain (0.89 vs. 0.78, respectively) and "continuing professional development" subscale (0.94 vs. 0.88, respectively). On the other hand, among family physicians, there were fewer discrepancies between the test and the retest procedures compared with the policymakers, notwithstanding the overall lower reliability coefficient (Cronbach's alpha).

In both study groups, in general, the questionnaire showed a good stability over time, as indicated by the test-retest reliability coefficients. Compared with the sample of family physicians, Spearman's correlation coefficients (a measure of stability over time of the instrument) were higher among policymakers for all the subscales, except for the "continuing professional development" domain.

The overall internal consistency of the instrument in this Kosovo sample of family physicians was comparable with a fairly recent study from Albania, which reported a similar cross-cultural adaptation

process of the same instrument in a representative sample of family physicians operating in primary health care services in Tirana, the Albanian capital (2). Our study expands further the evidence of validation of this international instrument in Albanian settings. It is appealing for future studies to pre-test (alias validate) this instrument also in Albanian speaking regions of Macedonia.

In conclusion, in the Kosovo context, we validated a useful tool measuring family physicians' level of abilities, skills and competencies regarding different domains of health care services from both practitioners' and policymakers' perspective. Our findings point to an adequate internal consistency (for both the test and the retest procedures) and stability over time (test-retest reliability) in this sample of family physicians and policymakers in Kosovo. From this perspective, this validation study provides useful evidence about cross-cultural adaptation of an international instrument measuring the level of competencies of family physicians in Kosovo. On the face of it, this international instrument indicates a good potential for wide scale application to policymakers and especially to nationally representative samples of family physicians in transitional Kosovo.

## Source of support

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