

**Original Article****Validation and reliability analysis of the questionnaire  
“Needs of hospitalized patients with coronary artery disease”**

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**Abstract**

**Aim :** The aim of the present study was to assess validation and reliability of the questionnaire :  
“Needs of hospitalized patients with coronary artery disease”.

**Method and Material:** A sample of 702 patients with coronary artery disease hospitalized in public sector was enrolled in the study. The study was conducted between June 2009 and June 2010. A questionnaire of 39 items was used in order to assess patients’ needs. Moreover, baseline characteristics were recorded. Evaluation of the face and content validity was performed by asking 15 patients and 5 health professionals to evaluate the clarity and plenitude/ representativeness of the questions regarding the assessment of hospitalized coronary disease patient’s needs. Evaluation of the construct validity of the questionnaire was performed by factor analysis.

**Results:** Factor analysis led to the derivation of 6 components that indicate the following needs: a) need for support and guidance, b) need for information from the medical-nursing staff, c) need for being in contact with other patient groups, and ensuring communication with relatives, d) need for individualized treatment and for the patient’s personal participation to his/her treatment e) need to meet the emotional needs (e.g anxiety, fear, loneliness) and the physical needs (such as relaxation, sleep, better conditions during hospitalization), f) need to trust the medical-nursing staff. Cronbach Alpha coefficient indicates a high consistency of the questions of which the sub-scale is consisted (Cronbach's  $\alpha > 0.8$ ). Finally, a high repeatability of all sub-scales of questionnaire was identified through intraclass correlation coefficient (ICC).

**Conclusions :** The questionnaire proved to be a valid and reliable instrument of needs of hospitalized patients with coronary artery disease. Its’ use in daily clinical practice will enable health professionals to provide high quality of care.

**Keywords:** hospitalized patients -coronary artery disease-needs of patients

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## Introduction

Coronary artery disease consists the major cause of morbidity and disability in many developed countries, globally<sup>1,2</sup>. During recent years, due to the increase in life expectancy of coronary disease patients, the interest of health professionals has turned to the assessment and the fulfillment of their needs during hospitalization<sup>3,4</sup>.

Nowadays, it has become evident that the care of hospitalized coronary patients is not only limited to the treatment of the disease and the prevention of complications but also involves assessment of their needs for the provision of high quality of care. According to the literature, there are many definitions proposed for the "need" due to its' inherent complexity. The "patients' need" is a dynamic concept that changes over time and the disease progression. Another commonly held view is that the "patients' need" varies accordingly to the spirituality and cultural traditions of the individuals<sup>5-8</sup>.

Although, considerable advances were made in the last decades in understanding the significance of assessing needs of hospitalized patients with coronary artery disease, however, in daily clinical practice their evaluation is still underestimated, for a variety of reasons such as the lack of time and personnel. Undermining or not assessing the needs of hospitalized patients exerts a negative influence on the outcome of the disease and imposes a tremendous financial burden on the National Health System in each country, whereas their detection, evaluation, and meeting of the patients' needs may have beneficial effects<sup>9-12</sup>.

Needs of hospitalized patients with coronary artery disease is a qualitative attribute that can be assessed by the use of questionnaire. Though, questionnaires are the most widely used tools especially in large surveys due to the low cost and their ease in apply, however, are subjected to recall bias, thus validation studies should be conducted in order to determine their validity and reliability.

The aim of the present study was to assess validation and reliability of the Needs of hospitalized patients with coronary artery disease .

## Method and material

**Study Population:** The sample size was 702 patients, 478 of whom were men and 224 women with chronic or acute coronary disease (angina, unstable angina, STEMI, non-STEMI, heart failure, arrhythmias). This particular patient sample was a convenience sample.

All patients who met the inclusion criteria of the study and were hospitalized in a cardiology department or intensive care unit (ICU) the fourth day after the rectory of four public hospitals in Attica and two public hospitals of the province during the period June 2009 - June 2010 were included in the study. The inclusion criteria for the study were medical attendance due to coronary heart disease for at least 3 days, and a good knowledge / use of the Greek language. Patients who met the inclusion criteria participated in the study after they had been orally informed for the purposes of the study and oral consent for their participation had been taken.

The method for the data collection was interview, using a specially modified questionnaire, which it fully met the requirements of the current study and consisted of the questions of "assessment of the needs of patients hospitalized with coronary artery disease" and descriptive characteristics. Specifically :

**Assessment of the needs of patients hospitalized with coronary artery disease:** To assess the needs of hospitalized coronary patients of this study, a questionnaire of 39 questions regarding potential needs of patients with coronary artery disease during hospitalization was developed by the researchers. These questions were selected according to the Kristjandottir<sup>13,14</sup> questionnaire, that evaluates the needs of hospitalized children's parents and has been

translated and used in Greece by Kyritsi et al<sup>15</sup>. Moreover, information from extensive literature review on the needs of hospitalized coronary disease patients, and informal interviews conducted by the researchers with patients and health professionals, were used. In addition, the questions were chosen in order to cover a wide range of the hospitalized patients' needs. More specifically, the questions were initially grouped according to their content in the following 6 categories of necessities: a) need for support and guidance, b) need for information from the medical-nursing staff, c) need for being in contact with other patient groups, and ensuring communication with relatives, d) need for individualized treatment and for the patient's personal participation to his/her treatment e) need to meet the emotional needs (e.g anxiety, fear, loneliness) and the physical needs (such as relaxation, sleep, better conditions during hospitalization), f) need to trust the medical-nursing staff. The Likert type four-scale was used to answer all questions. The four different scales were represented the following answers: No, Little, Much and Too Much. The process of filling out the questionnaires took between 15 and 30 minutes.

#### **Reliability and validity assessment of the questionnaire:**

**Validity:** Initially, the questionnaire, immediately after the design, was submitted to 15 patients to determine whether the questions were clear, understandable, and in a logical order (face validity). Moreover, the same patients and 5 health professionals who had long experience in working with heart failure patients were asked to criticize the content of the questionnaire (content validity).

More specifically, they were asked to express their views on whether they consider these 39 questions to be representative of the needs of patients with coronary artery disease or if some additional statements need to be added. The construct validity of the questionnaire was tested using the appropriate statistical technique in order to determine the structure of the questionnaire, namely the number of sub-

scales measured by this questionnaire, and the questions that constitute each sub-scale. For the construct validity evaluation, the 39 questions were used relatively to the importance of the 39 statements that assess the needs of patients. The criterion validity of the questionnaire was not checked, as a gold standard tool for assessment of the hospitalized patients' needs has not been proposed yet.

**Reliability:** Finally, the internal consistency and the repeatability of each sub-scale derived from the construct validity of the questionnaire was tested using the appropriate statistical test. In particular, 50 patients were use in order to assess the repeatability. These patients completed the questionnaire two times. Between the two measurements there was a period of three to four days.

**Base line characteristics :** The type of coronary disease and a number of socio-demographic characteristics of patients who participated were collected. More specifically, the following were recorded: sex and age of the participants, marital status, educational level, place of residence, number of children, and age of children.

The study was approved by the Medical Research Ethics Committee of each hospital and was conducted in accordance to the World Medical Association's Declaration of Helsinki (1989).

#### **Statistical analysis**

##### **Evaluation of the validity and reliability of questionnaires**

Evaluation of the face and content validity was performed by asking 15 patients and 5 health professionals, respectively, to evaluate the clarity and plenitude/representativeness of the questions regarding the assessment of hospitalized coronary disease patient's needs. The factor analysis was used to evaluate the construct validity of the needs' questionnaire. The suitability of the data for carrying out such analysis was tested by using the Bartlett sphericity test and the Kaiser-Meyer-Olkin (KMO) statistic test that evaluates the

degree of correlation among the questions included in the questionnaire.

Statistically significant results of the sphericity test indicates that the variance-covariance matrix of the initial questions of the questionnaire is not diagonal (ie, variables are correlated with each other). Also, values of  $KMO > 0.8$  indicate a fairly high correlation and therefore, factor analysis is meaningful. The method of "Analysis of Principal Components" was used for assessment of the main factors. The criterion of Kaiser (eigenvalue  $> 1$ ) was used to determine the number of factors derived from the factor analysis. An orthogonal rotation (i.e. Varimax) was used to improve the explanatory ability of the factors. Each factor that emerged was interpreted based on the questions that had load value  $> 0.4$ .

Evaluation of the internal consistency of the sub-scales for the patients' needs questionnaire was carried out by calculating the Cronbach Alpha coefficient. This coefficient ranges from 0 - 1. Large Cronbach Alpha values indicate a high consistency of the questions of which the sub-scale is consisted. The "Cronbach Alpha if item deleted" index was used to identify the questions that reduced the internal consistency of the questionnaire and therefore had to be excluded.

The repeatability of questionnaire was evaluated by using the Intra-class correlation coefficient (ICC), which takes values between -1 and +1. Values proximate to +1 show high repeatability of the questionnaire. The results are shown as ICC (95% confidence interval).

**Descriptive statistics:** Evaluation for normality of distribution of the continuous variables (e.g sub-scales of the needs of patients) was tested by the Kolmogorov-Smirnov test. The categorical data are presented as absolute and relative (%) frequencies, while the continuous data are

presented as mean values  $\pm$  standard deviations, except days of hospitalization which are presented as median and interquartile range.

All statistical analysis was carried out using SPSS program, version 17 (SPSS Inc, Chicago, IL, USA).

## Results

### Descriptive results

*Table 1* presents the baseline characteristics of the participants. It was observed that the majority of the participants were married (71.4%) and between 50-80 years old (78.3%). About 50% of the participants were retired (48.1%), primary school graduates (48.4%) and had 2 children (48.3%).

The majority of those with children (84.2%) reported that their children had already entered adulthood. Regarding area of residence, almost half of the participants were leaving in the greater area of Attica, while the rest of the participants were coming from either the countryside, a small town or the capital of a region with the same frequency. Regarding distribution by sex of the above socio - demographic characteristics, the percentage of female primary school graduates (59.5%) was significantly higher than the men's percentage (43.2%).

Relatively to the patients' occupation, although the majority of both sexes claimed to be retired, there was a distinct number of people who reported housekeeping as occupation. In particular, the percentage of female patients was 38.4%, in opposition to males' percentage which was 2.1%.

Regarding the coronary disease type, the most common type was ST Elevation Myocardial Infraction-STEMI (32.2%) and heart failure (27.1%), while the least common was the non-STEMI Myocardial Infraction.

**TABLE 1: Baseline Descriptive Characteristics of the Sample, overall and by sex**

Baseline Characteristics	Overall N=702	Male n=478	Female n=224
<b>Age</b>			
<40 years	11 (1.6%)	8 (1.7%)	3 (1.3%)
41-50 years	63 (9.0%)	53 (11.1%)	10 (4.5%)
51-60 years	153 (21.8%)	115 (24.1%)	38 (17.0%)
61-70 years	224 (31.9%)	147 (30.8%)	77 (34.4%)
71-80 years	173 (24.6%)	108 (22.6%)	65 (29.0%)
>80 years	78 (11.1%)	47 (9.8%)	31 (13.8%)
<b>Marital Status</b>			
Married	501 (71.4%)	368 (77.0%)	133 (59.4%)
Single	52 (7.4%)	41 (8.6%)	11 (4.9%)
Divorced	35 (5.0%)	26 (5.4%)	9 (4.0%)
Widowed	108 (15.4%)	40 (8.4%)	68 (30.4%)
Partner	6 (0.9%)	3 (0.6%)	3 (1.3%)
<b>Occupation</b>			
Unemployed	11 (1.6%)	9 (1.9%)	2 (0.9%)
Public Employee	60 (8.5%)	52 (10.9%)	8 (3.6%)
Private Employee	103 (14.7%)	77 (16.1%)	26 (11.6%)
Free Lancer	85 (12.1%)	80 (16.7%)	5 (2.2%)
Household	96 (13.7%)	10 (2.1%)	86 (38.4%)
Retired	338 (48.1%)	241 (50.4%)	97 (43.3%)
Other	9 (1.3%)	9 (1.9%)	0 (0.0%)
<b>Educational Level</b>			
Primary School	338 (48.4%)	206 (43.2%)	132 (59.5%)
High School	238 (34.0%)	169 (35.4%)	69 (31.1%)
University Graduate	36 (5.2%)	33 (6.9%)	3 (1.4%)
Msc - Phd	53 (7.5%)	45 (9.4%)	8 (3.6%)
Illiterate	34 (4.9%)	24 (5.0%)	10 (4.5%)
<b>Place of residence</b>			
Greater Attica Area	355 (50.6%)	250 (52.3%)	105 (46.9%)
Region capital	131 (18.7%)	86 (18.0%)	45 (20.1%)
Small Town	108 (15.4%)	70 (14.6%)	38 (17.0%)
Rural residents	108 (15.4%)	72 (15.1%)	36 (16.1%)
<b>Number of Children</b>			
None	73 (10.4%)	56 (11.7%)	17 (7.6%)
One	121 (17.2%)	89 (18.6%)	32 (14.3%)
Two	339 (48.3%)	229 (47.9%)	110 (49.1%)
Three or more	169 (24.1%)	104 (21.8%)	65 (29.0%)
<b>Childrens' Age</b>			
0-2 years	3 (0.5%)	3 (0.7%)	0 (0.0%)
3-6- years	9 (1.4%)	8 (1.9%)	1 (0.5%)
7-12 years	34 (5.4%)	32 (7.5%)	2 (1.0%)
12-18 years	54 (8.6%)	46 (10.8%)	8 (3.9%)
>18 years	531 (84.2%)	335 (79.0%)	196 (94.7%)
<b>Type of Heart Disease</b>			
Unstable Angina	109 (15.5%)	74 (15.5%)	35 (15.6%)
Non-STEMI	16 (2.3%)	13 (2.7%)	3 (1.3%)
STEMI	226 (32.2%)	160 (33.5%)	66 (29.5%)
Angina	119 (17.0%)	81 (16.9%)	38 (17.0%)
Heart Failure	190 (27.1%)	124 (25.9%)	66 (29.5%)
Arrhythmias	42 (6.0%)	26 (5.4%)	16 (7.1%)

## Statistic results

Regarding face and content validity both patients and experts reported that the statements were clear, easy to understand, in a logical order, and totally representative of the needs of the hospitalized patients.

Construct validity of the questionnaire for evaluation of the patient's needs. : As it is already mentioned, factor analysis was performed for the evaluation of the construct validity of the questionnaire for the patients' needs. Initially, the relevance of the data used for the factor analysis was confirmed. The statistical criteria Kaiser-Meyer-Olkin ( $KMO=0,948$ ) and the Bartlett Test of sphericity (value 20,230.187,  $p<0.001$ ), indicated that the raw data were suitable for the implementation of factor analysis

From the 39 original questions used in the factor analysis, 6 factors came off, using the Kaiser criterion and Varimax orthogonal rotation. The only statement that was removed from the original version of the questionnaire was "to be able to see a social worker to get information on treatment charges."

As shown in Table 2, the first factor consists of 9 questions and indicates "the need for support and guidance of the patient." This factor explains the bulk of the variability of the original data (44.2%). The second factor consists of 8 questions and expresses "the need for information to the patient from the medical-nursing staff. The percentage of variability in the data interpretation by this factor is estimated to 7.9%. The third factor consists of 6 questions and expresses "the need for being in contact with other patient groups, and ensuring communication with relatives". This particular factor explains 4.5% of the variability of the data. The fourth factor consists of 6

questions and expresses "the need for individualized treatment and the patient's personal participation to his/her treatment." This particular factor explains 3.8% of the variability of the data. The fifth factor consists of 7 questions and express "the need to meet the emotional needs (eg anxiety, fear, loneliness) and physical needs (such as relaxation, sleep, better treatment) of the patient. This particular factor explains 3.2% of the variability of the data. Finally, the sixth factor consists of 2 questions and expresses "the need for patients to trust the medical-nursing staff. This particular factor explains 3.0% of the variability of the data.

The overall rate of variation of initial data the 6 factors interpret in common, amounts to 66.6%.

**Table 2:** Factors of the questionnaire for evaluation of the needs of patients with heart disease, derived from factor analysis

Questions	Sub- scales (Factors)					
	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>
A1. Be able to believe, that I will be given the best possible care by the doctors						0.707
A2. Be able to believe, that I will be given the best possible care by the nurses						0.704
B3. To be explained to me, so that I can be aware of, how and if I am responsible for my health situation		0.594				
B4. The nurses being in contact with me, in order to advise me on how I can contribute to the improvement of my health.		0.642				
C5. To be informed of anything that is planned to take place and why		0.789				
C6. To have full knowledge of my health situation		0.742				
C7. To be informed of every treatment I may receive		0.832				
C8. To be informed of all known prognoses of my disease		0.782				
C9. To be informed of how both the treatment and the disease will affect my future social and business life		0.527				
C10. To be informed the soonest possible, about the results of the tests I have had		0.614				
C11. To be noticed so that I am ready for my possible release day, and for any other change of date	0.476					
C12. To be handed written guidelines about the progress of my health and being able to consult them later on (cause of hospitalized, tests, medication, and other guidelines )	0.668					
D14. To be advised about what to do after I am released	0.750					
D15. To know I am able to contact the department after I have left the hospital	0.710					
D16. To get assistance so I am aware of the needs related to my disease	0.673					
D17. To be able to inform the nursing staff and the doctors about my symptoms	0.580					
D18. To be encouraged by the staff to contact them, whenever I need to	0.687					
D19. To feel that the staff invites me to ask questions and look for the answers	0.671					
D20. To be able to meet individuals with similar health problems			0.817			
D21. To have a nurse that would help me notice the needs for food and sleep			0.562			
D22. A qualified person from the department, doctor or nurse, to be assigned to take care of the needs of my family			0.512			
D23. To have scheduled meetings with patients having similar health problems, in order to share experience with them			0.832			
D24. To feel that I contribute significantly to the faster improvement of my health condition	0.537					

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E25. To feel less stress					0.529	
E26. An important person to me to be able to stay with me					0.766	
E27. To feel that the nursing staff acknowledges my emotions					0.410	
E28. To feel I am in a relaxing environment (no corridors, not many beds, etc.)					0.456	
E29. To get help and support based on my personal needs e.g. stress, fatigue					0.443	
E30. To be free to make the final decision about the possible treatments, after I have been informed from the medical staff			0.626			
E31. To have sufficient rest and sleep					0.429	
E32. The work in the department to be adjusted according to my needs				0.452		
E33. To be able to talk privately with a doctor or a nurse about my emotions				0.583		
F34. An important person to me to be able to stay with me 24 hours if I wish					0.652	
F35. To be informed so that I contribute to my treatment				0.519		
F36. To be able to take charge of my physical care				0.601		
F37. To be able to explain issues regarding my health condition to family members and friends			0.520			
F38. A nurse to be assigned to follow my health condition after I am released from the hospital taking into account my previous health condition				0.744		
F39. A person from the department to be specifically responsible for taking care of my needs				0.751		
<b>Percentage of variation each factor explains</b>	44.2%	7.9%	4.5%	3.8%	3.2%	3.0%

1: The need for support and guidance

2: Need for information from the medical-nursing staff

3: Need for being in contact with other patient groups, and ensuring communication with relatives.

4: The need for individualized treatment and for the patient's personal participation to his/her treatment

5: Need to meet the emotional needs (e.g anxiety, fear, loneliness) and the physical needs (such as relaxation, sleep, better conditions during hospitalization)

6: Need to trust the medical-nursing staff



**Evaluation of the internal consistency of the questionnaire for the patients' needs assessment:** Table 3 shows the detailed results of the evaluation of the internal consistency for each sub-scale (factor) of the questionnaire of patients' needs assessment, as those derived from the factor analysis. Table 3 shows that the internal consistency of the questions making up each sub-scale is extremely high (Cronbach's  $\alpha > 0.8$ ). Also Table 3 shows the range of each sub-scale. Higher values indicate higher significance of the specific needs of the patients during hospitalization.

<b>Table 3: Evaluation of the internal consistency of the sub-scales of questionnaire for evaluation of the patients' needs (Cronbach's <math>\alpha</math>).</b>		
<b>Sub-Scales</b>	<b>Number of questions (value range of sub-scale)</b>	<b>Needs Importance</b>
		<b>Cronbach's <math>\alpha</math></b>
Need for support and guidance	9 (9 - 36)	0.922
Need for information from the medical-nursing staff	8 (8 - 32)	0.918
Need for being in contact with other patient groups, and ensuring communication with relatives	6 (6 - 24)	0.865
Need for individualized treatment and for the patients' personal participation in his/her treatment	6 (6 - 24)	0.861
Need to meet the emotional needs (eg anxiety, fear, loneliness) and the physical needs (such as relaxation, sleep, better conditions during hospitalization)	7 (7 - 28)	0.859
Need to trust the medical-nursing staff	2 (2 - 8)	0.923

The evaluation of repeatability showed that all sub-scales of questionnaire were highly repeatable, with the exception of the need for guidance and support which the repeatability was found to be moderate. These results are shown in Table 4.

<b>Table 4: Repeatability of sub-scales of the needs' assessment questionnaire.</b>		
<b>Sub-scales</b>	<b>Needs Importance</b>	
	<b>ICC</b>	<b>95% CI</b>
Need for support and guidance	0.583	0.224 - 0.803
Need for information from the medical-nursing staff	0.890	0.754-0.953
Need for being in contact with other patient groups, and ensuring communication with relatives	0.933	0.845 - 0.971
Need for individualized treatment and for the patients' personal participation in his/her treatment	0.990	0.976 - 0.996
Need to meet the emotional needs (eg anxiety, fear, loneliness) and the physical needs (such as relaxation, sleep, better conditions during hospitalization)	0.900	0.775 - 0.957
Need to trust the medical-nursing staff	0.969	0.927 - 0.987

ICC: Intraclass correlation coefficient

CI : Confidence interval

## Discussion

In the current work, the reliability and validity of a Greek questionnaire for assessment of coronary artery disease patients' needs was examined. This questionnaire is an adaptation of the questionnaire developed by Icelander Guðrún Kristjánsdóttir to assess how parents perceive the needs of their children emerging during their hospitalization, as well as the importance of those needs and how they are met<sup>13,14</sup>. To the best of our knowledge, this questionnaire has been used in other studies and countries : in Iceland<sup>16</sup>, Portugal<sup>17</sup>, Sweden<sup>18,19</sup> and in England<sup>20</sup>. In Greece, this questionnaire was used by Kyritsi et al.,<sup>15</sup> who explored the needs of 150 parents during their child's hospitalization.

The results of the present study showed that the questionnaire is a valid and reliable measurement instrument of the needs of hospitalized patients with coronary artery disease. The needs of hospitalized patients with coronary artery disease shown in the present study are: a) The need for support and guidance, b) need for information from the medical-nursing staff, c) need for being in contact with other patient groups, and ensuring communication with relatives, d) need for individualized treatment and for the patient's personal participation to his/her treatment e) need to meet the emotional needs (eg anxiety, fear, loneliness) and the physical needs (such as relaxation, sleep, better conditions during hospitalization), f) need to trust the medical-nursing staff.

To the best of our knowledge, a similar study has been conducted in 2003 by Asadi-Lari et al.<sup>10</sup>. In this study, a questionnaire that assessed three patients' needs (i.e. help need, overall social needs and overall physical needs) was used.

All the needs are essential for the development of dynamic and interacting therapeutic relation between health professionals and patients. More specifically, assessment of the needs of patients with coronary artery disease, contributes to the best implementation of any medical /

nursing practice, reduces their anxiety, and ensures their cooperation. Moreover, it enables patients to understand the medical instructions in detail, to accept their medical state and to comply with the treatment. Recent studies have shown that meeting the needs of patients with coronary artery disease is associated with a statistically significant reduction in mortality, morbidity, re-hospitalizations and healthcare costs<sup>9-12,21-24</sup>.

It is worth mentioning that assessment of needs is not always possible in patients with coronary artery disease. For example, the patients in sudden heart attack have not any choice but to follow the instructions and the care of health professionals. On the contrary, assessing the needs of patients who suffered myocardial infarction or in those suffering from congestive heart failure is matter of vital importance during the process of deciding the appropriate therapeutic approach or during the recovery process<sup>9-12,21-23</sup>.

The assessment of needs for hospitalized patients with coronary artery disease is a process that should be an integral part of the treatment, starting very early, from the diagnosis stage until the discharge from hospital. According to Asadi-Lari et al.,<sup>10</sup> medical professionals tend to focus on a medical model of health care, ignoring the more comprehensive approach which addresses 'the state of physical, mental and social well being'.

However, in the Greek health system, systematic measurement of patients' needs as well as comparative studies regarding this subject are lacking.

## Conclusion

The questionnaire is a valid and reliable measurement instrument of the needs of hospitalized patients with coronary artery disease. Understanding the importance of assessing needs of hospitalized patients by the completion of the present questionnaire should prompt health professionals to provide care of high quality, identifying areas for potential improvements

that are not directly related to physical conditions.

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