

Original research paper

Physician's perspective towards shared decision making in developing countries

ABSTRACT

Aims: To evaluate Iranian physician's perspective on shared decision making by validating and translating shared decision making questionnaire physician version (SDM-Q-DOC)

Place and duration: Iranian Evidence Based Medicine center of excellence, Tabriz University of medical sciences, Tabriz, Iran from June 2012 to July 2013

Methods: Shared decision making questionnaire physician version (SDM-Q-DOC) was translated and validated by conducting a pilot study among urologists in one of the hospitals of Tabriz University of Medical sciences. Validated questionnaire was handed out among Iranian physicians in 3 main hospitals of Urmia. The results were analyzed using factorial analysis SPSS 16 software. To assess reliability Cronbach's alpha coefficient was calculated. Pearson correlation coefficient was used for assessing test retest value

Results: The Persian version of questionnaire showed an acceptable level of reliability (Cronbach alpha=0.901). In implementation phase Iranian physicians were in favor of SDM process generally (mean score= 74.4%) but their perspective on different phases of SDM were different with 93% answering questions evaluating physicians' clinical explanations to their patients and only 68% agreeing with questions evaluating attitudes of physicians in involving their patients in taking the last treatment option.

Conclusion: Physician version of SDM-Q-DOC is a valid and reliable questionnaire assessing physicians' attitude towards SDM process. In this study Iranian physicians showed a positive view to SDM.

Keywords

Shared decision-making; Patient-centeredness; Person-centeredness; Evidence-Based Medicine; Developing Countries.

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32 1. INTRODUCTION

33 In recent decades there has been a strong notion towards Shared Decision Making (SDM) in medical
34 literature, medical encounters[1] and even in health care system of countries[2]. Despite great efforts in
35 the field of shared decision making, SDM process however still belongs numerous barriers when it comes
36 for SDM implementation[3]. Measuring SDM from different viewpoints might clarify the health care
37 system's status for SDM implementation.

38 SDM in practice is defined as presenting information for patients to involving them in finalizing the
39 suitable treatment option [4, 5]. There are several instruments assessing SDM process. They vary from
40 questionnaire based to audiovisual based instruments. The Instruments assessing SDM can be classified
41 as instruments assessing SDM from third observer perspective [6-8], physician's perspective [9] and
42 patients' perspective [10]. Despite high amount of studies discussing various option for assessing shared
43 decision making most of them are not able to address social and cultural differences in decision making
44 encounters[11]. Some SDM characters could be regarded as a negative one by patients if it is
45 implemented in a country with different level of culture and health knowledge [12]. Charles et al in their
46 study points out the importance of considering confounding factors in different possible contexts of shared
47 decision making[11].

48 It can be seen that because studies evaluating SDM process have been designed in developed countries,
49 they often fail to consider different contexts of this process existing in countries with lower level of
50 socioeconomic status. SDM implementation could be completely different in different cultures resulting in
51 different perspective of their physicians towards SDM process.

52 In this study we adapted SDM-Q-DOC "an instrument for assessing physicians' point of view on SDM" in
53 order to address this knowledge gap among medical literature. Our study evaluates physicians'
54 perspective in Iran as a developing country resulting in consideration of different cultural and social
55 values compared to western countries in SDM implementation.

56 2. METHODOLOGY

57 2.1. Developing the instrument

58 The nine item shared decision making questionnaire physician version (SDM-Q-Doc) was chosen to
59 assess Iranian physician's point of view on shared decision making (SDM).The original questionnaire was
60 in German language but we decided to use English version of the questionnaire for the process of
61 validation. Author's consent was obtained for using the English version instead of German. SDM-Q-Doc
62 was translated from English to Persian by two bilingual experts. One of the translators was physician and
63 other one was a researcher who was aware of the research objectives. Back-translation was performed

64 by a native English speaker (fluent in Persian) who was unaware of research aims. Translation
65 methodology was checked by sending the back-translation to original authors. This was to ensure that the
66 content of the translation conforms to original version and author's recommendations were considered.

67 In order to assess reliability we conducted a pilot study on 18 physicians from department of urology in a
68 teaching hospital of Tabriz University of Medical Sciences. Questionnaires were filled by physicians at two
69 separate times with one week interval. This was to reduce recall-induced agreement.

70 The results of the pilot study were analyzed and reliability of the questionnaire was assessed by
71 Cronbach's alpha using the factorial analysis in SPSS16 software. In order to evaluate test-retest value
72 Pearson correlation coefficient were calculated.

73 **2.2. Implementing the instrument**

74 After process of validation, the new questionnaire was administered among 81 physicians in teaching
75 hospitals of Urmia University of Medical Sciences (Shahid Motahari Hospital, Imam Khomeini Hospital,
76 Taleghani Hospital) to assess physicians perspective on shared decision making. Physicians attending in
77 the study were from departments of Anesthesia, Urology, Gynecology and Emergency.

78 To evaluate general perception of physicians from SDM the scoring system of original questionnaire was
79 implemented. The scale was a 9 item questionnaire including 6 items for each question. The scoring for
80 items were ranging from 0 (completely disagree) to 5 (completely agree). The total score for each
81 questionnaire was calculated and mean score (ranging from 0-45) of whole questionnaires were
82 determined to estimate perceived level of SDM among Iranian physicians in general.

83 The results were analyzed using SPSS16 software. Frequencies of answers for each question were
84 calculated and analyzed separately.

85 **3. RESULTS AND DISCUSSION**

86 In the first phase of the study (validation) 18 physicians from department of urology were involved. The
87 Cronbach's alpha coefficient was 0.9 indicating a high degree of internal consistency of the questionnaire.
88 The Pearson correlation coefficient was 0.70 showing a large and positive linear relationship between two
89 variables. Pearson coefficient was between 0.5- 0.70 in questions 1, 2, 4 and 5 that still showed a large
90 relationship. We attributed this to different understanding of Iranian physicians due to the difference
91 existing in medical scenarios in Iran compared to western countries.

92 In the second phase of the study (Implementation) 81 Physician were enrolled. Physicians were specialist
93 or general practitioners from departments of Anesthesia, Urology, Gynecology and Emergency. Mean
94 score over item was 31.18 (7.45 SD) which was calculated as 74.40% level of perceived SDM (Table 1).

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96 **Table 1.Scores noted based on questionnaire’s scoring system.**

Number of questionnaires	Mean score	Mean score (%)	Standard Deviation	Maximum	Minimum
81	31.18	74.40	7.45	45.00	14.00

97 *This table demonstrates level of perceived general SDM by Iranian physicians by reporting scores derived from original questionnaire’s proposed*
 98 *scoring system.*

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100 Approximately 97% of physicians declared they make clear to their patients about the necessity of taking
 101 a medical decision. Almost 90% agreed that they would like to know how their patient wants to be
 102 involved in the process of shared decision making. Likewise 90% said that they explain different options
 103 of treatments to their patients. Eighty nine percent believed that they explain advantages and
 104 disadvantages of different options to their patients. Most of the doctors (94%) agreed that they help their
 105 patients to understand all the information related to their health problem. On the other hand 30% of
 106 physicians declared they disagree with asking the patients about their treatment preferences and 32%
 107 were unlikely to weight different treatment options with patients. Interestingly 42% indicated that they
 108 select final decision alone not with their patients and 25% of doctors do not reach an agreement with their
 109 patients on how to proceed in the process of treatment (Table 2).

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115 **Table 2 .Questions and scores noted by participants for each question.**

Questions	Maximum	Minimum	Mean	Standard Deviation	Agree (%)	Disagree (%)
1 I made clear to my patient that a decision needs to be made.	5.00	2.00	4.23	0.89	97.5	2.5
2 I wanted to know from my patient how he/she wants to be involved	5.00	0.00	3.60	1.16	91.1	9.9

3	I told my patient that there are different options for treating his/her medical condition.	4.00	0.00	4.4	1.6	91.1	9.9
4	I precisely explained the advantages and disadvantages of treatment options to my patient.	5.00	0.00	3.62	1.16	88.9	11.1
5	I helped my patient understand all the information.	5.00	2.00	3.77	0.90	95.1	4.9
6	I asked my patient which treatment option he/she prefers.	5.00	0.00	3.17	1.36	70	30
7	My patient and I thoroughly weighed the different treatment options.	5.00	0.00	3.33	1.39	67.9	32.1
8	My patient and I selected a treatment option together.	5.00	0.00	2.69	1.36	58	42
9	My patient and I reached an agreement on how to proceed.	5.00	0.00	3.25	1.28	75.3	24.7

This table shows scores of each question indicated by Iranian physicians. It should be noted that the questionnaire which was passed out to physicians were in Persian.

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119 In this study physician's point of view on Shared Decision Making (SDM) was evaluated in a developing
 120 country by adapting the English version of SDM-Q-Doc scale to Persian language. In our knowledge this
 121 questionnaire is the first valid scale assessing physician's perspective on SDM in developing countries. In
 122 the adaptation phase the instrument was assessed showing an acceptable level of internal consistency
 123 and good level of reliability of the questionnaire. In the implementation phase physicians showed positive
 124 attitude towards SDM generally (with 74.40% level of perceived SDM) but their perspective in different
 125 stages of SDM as defined by Heghland and colleagues (2012)[13] (Information dissemination,
 126 Formulation of options, integration of information and control) were different.

127 Studies for evaluating physician's point of view on SDM reported positive attitude of physicians towards
 128 shared decision making in general. Some of these studies provide stages[13] and special frameworks[4]
 129 for SDM process. In a study by Charles and colleagues SDM has been discussed in four model of
 130 paternalistic (in which physician is the only decision maker), some sharing (in which physician shares
 131 information with patients but ignores them to involve in taking the final treatment option, informed (the
 132 physician shares information and the patient decides about the treatment option), and shared (in which
 133 physician shares the information with patient and they take the final decision together). In Charles and
 134 colleagues's study 93% of physicians were agree with shared approach, 28.2% agreeing with some
 135 sharing, 26.8% with informed and 5.3% with paternalistic approach[4, 14]. In another study by Heghland
 136 and colleagues physician's perspective on different stages of shared decision making has been
 137 assessed[13]. This study showed 80% of physicians were agree with sharing information but only 65%
 138 and 70% of them agreed in formulation of options and control process respectively which assess

139 physician's attitude towards involving patients in choosing the final treatment option. These studies have
140 been performed in developed countries in which positive point of view on SDM is expected due to high
141 level of literacy in their societies and SDM implementation by physicians is much easier than developing
142 countries. There are studies reporting the influence of culture in SDM process [11,12,15]. Although there
143 is a difference in culture and level of literacy in Iran's society but fortunately Iranian physicians point of
144 view on SDM was positive and their perspective in different stages of SDM were similar to western
145 countries with 94% of physicians agreeing with information exchange and 68% agreeing with questions
146 assessing physician's attitude on involving patients to select a treatment option. We attributed this
147 similarity to almost similar western educational system for Iranian physicians causing for better
148 information of Iranian physicians on SDM.

149 In a study by Murray and colleagues the role of physician's specialty in shared decision making has been
150 highlighted [16]. We did not consider physician's specialty in our sampling methodology, meaning our
151 sample was not a homogenous number of physicians from different specialties. It should be noted that
152 our study was a questionnaire based one with several limitations existing in self reporting studies. We
153 think that larger studies with suitable instruments should be implemented to assess physician's
154 perspective on SDM process in developing countries with different cultures.

155 **4. CONCLUSION**

156 It can be concluded that the Persian version of SDM-Q-DOC is a valid and reliable questionnaire which
157 can be implemented in health care system for assessment of SDM from physician view. Iranian
158 physicians had a positive view to SDM but they were more likely to disseminate information to their
159 patients rather than involving them in choosing the treatment option.

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