

Jordanian Physicians' Attitudes toward Disclosure of Cancer Information and Patient Participation in Treatment Decision-making

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ABSTRACT

Objective: This study aims to determine the attitude of Jordanian physicians toward disclosure of cancer information, comfort and use of different decision-making approaches, and treatment decision making. **Methods:** A descriptive, comparative research design was used. A convenience sample of 86 Jordanian medical and radiation oncologists and surgeons practicing mainly in oncology was recruited. A modified version of a structured questionnaire was used for data collection. The questionnaire is a valid measure of physicians' views of shared decision making. **Results:** Almost 91% of all physicians indicated that the doctor should tell the patient and let him/her decide if the family should know of an early-stage cancer diagnosis. Physicians provide abundant information about the extent of the disease, the side effects and benefits of the treatment, and details of the treatment procedures. They also provided less information on the effects of treatment on the sexuality, mood, and family of the patient. Almost 48% of the participating physicians reported

using shared decision making as their usual approach for treatment decision making, and 67% reported that they were comfortable with this approach. The main setting of clinical activity was the only factor associated with physicians' usual approach to medical decision making. Moreover, age, years of experience, and main setting of clinical activity were associated with physicians' comfort level with the shared approach. **Conclusions:** Although Jordanian physicians appreciate patient autonomy, self-determination, and right to information, paternalistic decision making and underuse of the shared decision-making approach persist. Strategies that target both healthcare providers and patients must be employed to promote shared decision making in the Jordanian healthcare system.

Key words: Cancer, decision making, information provision, Jordanian, physicians

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Introduction

Assisting patients in decision making is an important function of patient–provider communication. Patient involvement in decision making is necessary because of the large number of preference-sensitive decisions in cancer care.^[1,2] Studies conducted in the USA and Canada have shown that information exchange and promoting cancer patient involvement in decision making improve patient knowledge regarding cancer and its treatment,^[3-5] satisfaction,^[6,7] ability to cope, and adherence to the treatment; these processes also reduce patient uncertainty and anxiety^[8,9] and ultimately increases the health-related quality of life.^[10,11] Physician support and motivation have been reported as factors promoting patient involvement in decision making among Western physicians.^[12] Socially sanctioned roles in the patient–provider relationship in non-Western countries, whose cultures are mostly family centered, are different from those in Western countries (autonomous, self-determinate patients and authoritative physicians). Physicians in non-Western countries may act as authoritarian rather than authoritative healthcare providers. Non-Western physicians are also reluctant to inform their patients of their cancer diagnosis and prefer to disclose the diagnosis to the family.^[13] A study reported that Japanese patients were not given the opportunity to participate in decision making and forced to make treatment decisions without being given sufficient information.^[13]

The attitude of Jordanian physicians toward truthful disclosure of cancer information, information provision, and patient involvement in medical decision making has been rarely investigated. In their narrative review of the non-Western literature of decision making among adult cancer patients, Obeidat *et al.*^[13] found that only three studies recruited Arab cancer patients or healthcare providers. None of the three studies recruited Jordanian healthcare providers, including physicians, and addressed treatment decision making. Thus, this study aims to determine the attitude of Jordanian physicians toward disclosure of cancer information, comfort and use of different decision-making approaches, and patient participation in treatment decision making. Specifically, this study strives to (a) determine the attitude of Jordanian physicians toward disclosure of cancer information; (b) examine the amount of details usually provided by physicians regarding the disease, treatment, and benefits and costs of treatment options; (c) evaluate the physicians' use and support of different approaches to decision making when discussing treatment options;

and (d) assess the relationship of physicians' demographic characteristics (namely, age, gender, specialty, and years of experience) with their attitude toward disclosure of cancer information, usual approach to decision making, and comfort with shared decision making.

Methods

Study design

A descriptive comparative survey design was used in this research.

Population and setting

Jordanian medical and radiation oncologists and surgeons were recruited using convenience sampling technique based on the following inclusion criteria: Practicing mainly in oncology and licensed to provide healthcare services, holding a professional degree with credentials, able to read and understand English language, and able to complete the survey. Physicians were recruited from three teaching hospitals, three hospitals affiliated with the Jordan Ministry of Health, King Hussein Cancer Center, and from private clinics in the capital of Amman.

Data collection

This study was approved by the Institutional Review Board of each hospital. Physicians who were eligible to participate in the study were approached by a primary investigator (PI) and/or a trained data collector and invited verbally to participate in the study. The PI/data collector introduced him/herself to physicians in the oncology units in each hospital and provided the physicians with a cover letter explaining the purpose of the study, risks and benefits, assurance of keeping their information confidential, and contact information of the researcher.

The participants were given time to read the information on cover letter. When no questions or clarifications were asked, the study questionnaire and a coded envelope were given to the participants. The participants were instructed to fill out the questionnaire anonymously at their convenience, place the completed forms in the envelope, and return it to the data collector. Data were collected between June 2014 and February 2015.

Measures

A structured questionnaire developed by Canadian researchers on medical decision making through focus groups and pilot-testing^[14] was modified and used to collect data for the present study. Permission from the

original author of the questionnaire was obtained. The questionnaire has been used in several studies of shared decision making^[14-16] and is regarded as a valid measure of physicians' views of shared decision making. In the present study, the internal consistency reliability coefficient for the scale was set as 0.76. Physicians were asked to indicate the amount of details that they usually provide, from 1 = no information to 5 = abundant information, on 10 topics related to the benefits and costs of treatment options. The participating physicians were asked to select from four unlabeled scenarios reflecting four decision-making approaches that best reflected their usual approach to treatment decision making. The first scenario describes the paternalistic approach, in which the physician dominates the decision-making process. The second scenario is the information-sharing-only approach, in which the patients and the physicians share information but the physician makes the final treatment decision. The third scenario describes the informed approach, in which the physicians provide information on the advantages and disadvantages of treatment options but the patients make the final treatment decision alone. The fourth scenario is the shared approach, in which the patients and the physicians share responsibility throughout all the phases of the treatment decision-making process and both agree on the final treatment decision. Physicians were asked to rate their comfort levels with each decision making approach on a five-point Likert scale from not comfortable to extremely comfortable. Physicians were asked to indicate the percentage of their patients with which they usually initiate a discussion concerning participation in decision making, whether they routinely offered a treatment recommendation, and which role they felt their patients wanted to play: Passive, shared, or active.

The attitude of physicians toward the disclosure of cancer diagnosis and prognosis was assessed using a scale adapted from Ruhnke *et al.*^[17] The scale was incorporated into the structured medical decision-making questionnaire. The scale consists of two vignettes concerning a patient with early-stage cancer and a patient with advanced-stage cancer. Physicians were asked to indicate their agreement or disagreement by using a four-point Likert scale with three statements related to each vignette. The questionnaire was introduced to Jordanian physicians in its original language because English is the language used in all medical schools in Jordan; thus, most healthcare professionals in Jordan are proficient in English as their second language.

Statistical analysis

Data were analyzed using SPSS version 19.0 (SPSS, Inc., Chicago, IL, USA). Descriptive statistics of sample

demographics and characteristics were calculated. The four-point Likert scale was dichotomized into "agree" or "disagree" and frequencies were calculated for each category and reported for each of the three statements under the two vignettes to determine the attitude of physicians toward disclosure of cancer information. The frequencies of the response categories were calculated using the five-point Likert scale: No information, little information, some information, considerable information, and abundant information. Furthermore, the means and standard deviations for each response category and the total information giving score were calculated. The frequencies of the physicians' reported usual approach to decision making and their comfort level with the different approaches were calculated to determine their use and support of such approaches to decision making when discussing treatment options. The original four-category response to usual approach to decision making was collapsed into two categories, namely, shared decision making or not. The five-category response for comfort level with shared decision making was collapsed into two categories, namely, low comfort (not comfortable, somewhat comfortable, and neutral) and high comfort (very comfortable and extremely comfortable). Univariate analysis (crosstabs and Chi-square test for categorical variables, Pearson correlation for continuous variables, and Spearman's rho for correlations between continuous and categorical variables) was conducted to identify associations between physicians' demographic characteristics (age, gender, specialty, years of experience, country of medical training, caseload, type of clinical setting, most common type of cancer managed, and community size) and their attitude toward disclosure of cancer information, usual approach to decision making (shared or nonshared), and high comfort with shared decision making. A two-tailed $P = 0.05$ was considered statistically significant.

Results

Participants

Among the 121 eligible physicians approached, 86 completed questionnaires were returned (71% response rate). The response rate is higher than the mean response rate for physician surveys reported in the literature^[18,19] because of the direct contact between the research team and the study participants. No statistically significant differences were found in the demographic characteristics of the participants and eligible, nonparticipating physicians. Physicians who declined from participating in the study reported that they lacked time to complete the study questionnaire because of their busy schedules.

Table 1 shows the demographic characteristics of the participating physicians.

Physicians' attitudes toward disclosure of cancer information

Almost 91% of the participating physicians agreed that the doctor should tell the patient and let him/her decide whether the family should know of a diagnosis of

Table 1: Demographic and work characteristics of the sample ($n=86$)	
Variable	Frequency (%) ^a
Age (mean), years	44.4 (35-65)
Gender	
Male	76 (90.5)
Female	8 (9.5)
Years qualified (mean)	19 (6-19)
Specialization	
Medical oncologist	31 (36.5)
Radiation oncologist	14 (16.5)
Surgeon	40 (47.1)
Type of cancers treated	
Breast	30 (35.3)
Colorectal	21 (24.7)
Gynecological	3 (3.5)
Leukemia/lymphoma	8 (13.7)
Urological	12 (14.1)
Lung	8 (9.4)
Hours of patient care per week	
<20 h	28 (32.6)
20 h or more	58 (67.4)
Main setting of clinical activity	
Private hospital	15 (17.4)
Public hospital	22 (25.6)
Cancer center	34 (39.5)
University affiliated	15 (17.4)

^aPercentages based on valid cases only

Table 2: Physicians' attitudes toward disclosure of cancer diagnosis and prognosis ($n=86$)		
Vignette	Frequency (%)	
	Agree	Disagree
If the patient has a diagnosis of early stage cancer		
The doctor should tell the patient, and also let the patient decide whether or not their family should be told	78 (90.7)	8 (9.3)
The doctor should tell the patient's family, and also let them decide whether or not the patient should be told	40 (46.5)	46 (53.5)
Assume the family has been told and they do not want the patient to be told; the doctor should tell the patient anyway	65 (75.6)	21 (24.4)
If the patient has a diagnosis of advanced-stage cancer		
The doctor should tell the patient, and also let the patient decide whether or not their family should be told	68 (79.1)	18 (20.9)
The doctor should tell the patient's family, and also let them decide whether or not the patient should be told	44 (51.2)	42 (48.8)
Assume the family has been told and they do not want the patient to be told; the doctor should tell the patient anyway	63 (73.3)	23 (26.7)

early-stage cancer, but a lower percentage (79%) agreed that the doctor should tell the patient and let him/her decide whether the family should know of a diagnosis of advanced-stage cancer [Table 2].

A positive correlation was observed between average hours devoted per week to direct patient care in oncology and physician's attitude toward disclosure of a diagnosis of advanced-stage cancer; with higher average number of hours that the physician devoted to direct patient care in cancer per week, the physician is more likely to prefer the disclosure of a diagnosis of advanced-stage cancer to the patient in reference to the family ($r_{pb} = 0.374$, $P < 0.001$).

Information giving

Table 3 shows the amount and type of information that physicians routinely provide to newly diagnosed or newly referred cancer patients. Physicians gave the most information regarding the extent of the disease, side effects and benefits of the treatment, and treatment procedures and provided the least information on effects of treatment on appearance, sexuality, mood, and family. No association was found between the amount of information given and any demographic characteristic or physician's usual approach to decision making.

Use and support of different decision-making approaches

Although 67% of participating physicians reported high levels of comfort with shared decision making, less than half (48%) of the number reported using this scheme as their usual approach to treatment decisions [Table 4]. The majority of physicians reported initiating a discussion with their patients about participating in treatment decision making and offering treatment options when available (91% and 94%, respectively). Univariate analysis revealed that only the main setting of clinical activity ($\chi^2 = 7.90$, $df = 3$, $P = 0.048$) was associated with physicians' usual approach to medical decision making [Table 5]. However, age, years of experience, and main setting of clinical activity were associated with physicians' comfort level with the shared approach. Physicians practicing in university-affiliated hospitals were more likely to use a shared approach and to be the most comfortable with this approach compared with physicians practicing in other clinical settings.

About 67% of surgeons and 66% of medical oncologists reported high comfort with the shared approach; however, only about 49% and 42% of them, respectively, reported using this approach as their usual approach to treatment

Table 3: Information giving (n=86)

Item	Frequency (%) ^a					Mean (SD)
	No information	A little information	Some information	Quite a bit of information	Great deal of information	
Extent of the disease	2 (2.3)	3 (3.5)	8 (9.4)	43 (50.0)	30 (34.9)	4.12 (0.88)
Details of treatment procedures	1 (1.2)	1 (1.2)	5 (5.8)	44 (51.2)	35 (40.7)	4.29 (0.73)
Benefits of treatment	1 (1.2)	2 (2.4)	4 (4.7)	32 (37.6)	46 (54.1)	4.41 (0.79)
Risks (side effects) of treatment	1 (1.2)	1 (1.2)	7 (8.1)	25 (29.1)	52 (60.5)	4.47 (0.79)
Impact of treatment on sexuality	2 (2.4)	10 (11.8)	27 (31.8)	27 (31.8)	19 (22.4)	3.60 (1.03)
Changes in appearance due to treatment	2 (2.4)	6 (7.1)	21 (24.7)	31 (36.5)	25 (29.4)	3.84 (1.01)
Effects of treatment on mood	5 (5.9)	6 (7.1)	28 (32.9)	27 (31.8)	19 (22.4)	3.58 (1.09)
Effects of treatment on family	7 (8.2)	9 (10.6)	22 (25.9)	32 (37.6)	15 (17.6)	3.46 (1.15)
Effects of treatment on social activities	5 (5.8)	13 (15.1)	18 (20.9)	33 (38.4)	17 (19.8)	3.51 (1.14)
Effects of treatment on patients' ability to care for themselves at home	3 (3.5)	5 (5.9)	18 (21.2)	36 (42.4)	23 (27.1)	3.84 (1.01)
Total information giving score						39.104 (6.47)

^aPercentages based on valid cases only. SD: Standard deviation

Table 4: Usual approach to decision-making and comfort levels with each approach (n=86)

Decision making approach	Frequency (%)			Neutral n (%)	Frequency (%)	
	Usual approach	Not comfortable	Somewhat comfortable		Very comfortable	Extremely comfortable
Paternalistic (Example 1)	17 (20.0)	12 (15.4)	20 (25.6)	19 (24.4)	18 (23.1)	9 (11.5)
Information sharing (Example 2)	12 (14.1)	5 (6.5)	21 (27.3)	29 (37.7)	15 (19.5)	7 (9.1)
Informed (Example 3)	15 (17.6)	4 (5.2)	11 (14.3)	25 (32.1)	31 (40.3)	6 (7.8)
Shared (Example 4)	41 (48.2)	3 (3.9)	4 (5.3)	18 (23.7)	23 (30.3)	28 (36.8)

decision making. Among all participating physicians, 64% reported that more than half of their patients preferred the physician taking full responsibility for treatment decision making. Almost 19% reported that more than half of their patients preferred to share decision responsibility, and 7% reported that more than half of their patients preferred to have full responsibility in treatment decision making.

Discussion

Physicians' attitudes toward disclosure of cancer information

The proportion of Jordanian physicians who preferred to inform the patient of an early-stage cancer diagnosis and let him/her decide whether the family should be informed is higher than the proportions reported among physicians from other Arab countries.^[20,21] Jordanian physicians' attitudes regarding disclosure of the diagnosis of advanced-stage cancer to the patient him/herself are comparable to those reported among American and European physicians,^[22] but higher than the proportion reported among physicians from other Arab countries.^[20,21] Furthermore, the proportion of physicians who indicated that the doctor should tell the patient anyway if the family has been told of a diagnosis of advanced-stage cancer and family does not want to tell the patient is higher than those reported among physicians

from other Eastern countries.^[23-25] The most plausible explanation for the difference between Jordanian physicians and those from other Arab countries is that the change in physicians' and the public's attitude toward patient autonomy, self-determination, and cancer itself could be relatively fast among Jordanian physicians and the public owing to the less conservative Jordanian culture compared with several other Arab countries.

Use and support of different decision-making approaches

The majority of Jordanian physicians in this study reported high comfort levels with the shared decision-making approach. Almost half reported using the shared approach as their usual approach to decision making. Although this percentage is lower than those reported among Western physicians,^[14,16] this result reflects the evolving change in Jordanian physicians' and the public attitudes toward patient autonomy, self-determination, and informed consent.

Differences in physicians' use of the shared approach and their comfort level with this approach according to clinical setting may be related to differences in caseload between these settings. Physicians practicing in university-affiliated hospitals usually present a smaller caseload than those

Table 5: Univariate analyses of usual decision-making approach and high comfort with the shared approach by doctor characteristics (n=86)

Demographic and work characteristics	Frequency (%)		χ^2 (df)	High comfort, frequency (%)	χ^2 (df)
	Nonshared	Shared			
Age (years)					
Under 40	20 (64.5)	11 (35.5)	χ^2 (2)=5.80	12 (48)	χ^2 (2)=6.40*
40-55	20 (51.3)	19 (48.7)		26 (74.3)	
Over 55	4 (26.7)	11 (73.3)		13 (81.3)	
Years of experience (years)					
<10	7 (53.8)	6 (46.2)	χ^2 (2)= 5.54	3 (30)	χ^2 (2)=8.84*
10-20	26 (63.4)	15 (36.6)		23 (65.7)	
>20	11 (35.5)	20 (64.4)		25 (80.6)	
Gender					
Male	35 (47.6)	40 (53.3)	χ^2 (1)=4.82	47 (71.2)	χ^2 (1)=1.49
Female	7 (87.5)	1 (12.5)		4 (50)	
Specialization					
Medical oncologist	18 (58.1)	13 (41.9)	χ^2 (2)=1.92	19 (65.5)	χ^2 (2)=0.056
Radiation oncologist	5 (35.7)	9 (64.3)		9 (69.2)	
Surgeon	20 (51.3)	19 (48.7)		22 (66.7)	
Type of cancers treated					
Breast	19 (63.3)	11 (36.7)	χ^2 (5)=7.55	14 (51.9)	χ^2 (5)=11.07
Colorectal	8 (40)	12 (60)		11 (61.1)	
Gynecological	2 (66.7)	1 (33.3)		3 (100)	
Leukemia/lymphoma	3 (37.5)	5 (62.5)		8 (100)	
Urological	5 (41.7)	7 (58.3)		8 (80)	
Lung	5 (62.5)	3 (37.5)		4 (57.1)	
Main setting of clinical activity					
Private hospital	8 (53.3)	7 (46.7)	χ^2 (3)=7.90*	11 (73.3)	χ^2 (3)=10.65*
Public hospital	9 (42.5)	12 (57.1)		10 (62.5)	
Cancer center	23 (67.6)	11 (32.4)		16 (51.6)	
University affiliated	4 (26.7)	11 (73.3)		14 (100)	

*P<0.05

practicing in other clinical settings, meaning that the physicians would have more time to involve patients in decision making.

This study revealed an inconsistency between comfort levels and usual approach to decision making reported by participating physicians. The proportions of physicians who reported high comfort with the paternalistic approach and those who use it as their usual approach to decision making are higher compared with Western physicians.^[14,16] Several factors could be responsible for the underuse of shared decision making by Jordanian physicians and the perseverance of the paternalistic approach. First, unlike numerous Western countries that enact laws mandating physicians to inform patients of their diagnosis and offering them treatment options when available, such laws are lacking in Jordan. The code of ethics of the Jordanian Medical Association gives the physician the right to not disclose the diagnosis to his/her patient but disclose a life-threatening diagnosis (such as cancer) to the family and the diagnosis news is deemed harmful to the patient. The Jordan Medical Association's code of ethics does not

mention shared decision making, describe the nature of the patient-physician relationship, or mention the physician's obligation to offer patients treatment options when available.

Second, patient-centered care is a core value in numerous Western countries; in the USA, for example, shared decision making is one of the primary tenets of healthcare reform, and specific measures have been suggested (such as funding to develop and implement decision aids and paying healthcare providers to use decision aids) to promote the implementation of shared decision making in clinical practice.^[26] These efforts do not exist in the Jordanian healthcare system. Third, whereas a communication skills training course is integrated into the curricula of Jordanian medical schools, shared decision making is not part of the content taught in this course in any school. Thus, Jordanian physicians may lack the necessary training to communicate effectively and involve the patients in medical decision making.

Another possible contributing factor is that Jordanian physicians act in accordance with patients' preferences for

participation in treatment decision making. The majority of participating physicians reported that more than 50% of their patients wanted their physicians to be the sole decision makers. The cultural norms, in which patients are not accustomed to being involved in medical decision making, are rooted deep in Jordanian society and may be responsible for Jordanian patients' willingness to play a passive role in treatment decision making.

Strategies that target both healthcare providers and patients must be employed to promote shared decision making in the Jordanian healthcare system. Healthcare providers, especially physicians at both the undergraduate and postgraduate level, should be trained on effective patient-provider communication, patient-centered care, process of shared decision making, and how to embrace a culture of open dialogue in which the patient feels welcomed and supported in sharing information with the healthcare provider and welcomed to be involved in the decision-making process.

Jordanian patients may lack information regarding available treatment options for different types of cancer, such as breast^[27] and prostate cancers. At present, the only health education resource available for Jordanian cancer patients in Arabic is King Hussein Cancer Center's website, which is the only website that offers patients certain guidance on how to make informed treatment decisions. By contrast, the Jordan Ministry of Health website lacks patient education resources. Low health literacy has been implicated as one of the major barriers for the successful implementation of shared decision making in clinical practice.^[12] Thus, one possible strategy to promote shared decision making in Jordan is to target national health campaigns at raising public awareness about the availability of treatment options for different types of cancer; acquiring this knowledge would ultimately empower people to be more involved in their own medical care and decision making. The Jordan Ministry of Health should develop patient education resources that contain accurate, relevant, and easy to understand health information and make this information available to the public. Finally, even King Hussein Cancer Center, the only specialty cancer center in Jordan, does not offer any Arabic decision aids; hence, high-quality, culturally sensitive decision aids need to be developed to help patients make informed treatment decisions and to create systems that support the implementation of these aids.

The results of this study should be interpreted in light of several limitations. The sample size was small. However, the wide range of ages, years of experience, specialties, and clinical settings included in the sample indicate that the

sample is representative of Jordanian oncology physicians. Study data were obtained using self-reporting; thus, social desirability bias is expected and physicians may have overestimated their information provision behavior and their use of and comfort with the shared decision-making approach. Finally, physicians were asked regarding their usual approach to decision making. In different clinical situations, physicians may vary their decision-making approach, and this provision was not addressed in the study. Thus, to address those limitations, future studies should include large samples and direct observation of the clinical situation in which treatment decisions are made.

Conclusion

Despite a strong appreciation of patient autonomy, self-determination, and right to information among Jordanian physicians, the paternalistic decision-making approach and an underuse of the shared decision-making approach persist. A notable inconsistency was found between physicians' comfort level with shared approach and their reported use of this approach. Thus, future studies should address Jordanian physicians' perceptions of barriers that may hinder their use of the shared approach with cancer patients.

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Conflicts of interest

There are no conflicts of interest.

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