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Original Article

Attitudes of Health Care Providers toward Discussing Treatment-Associated Costs with Patients in the Clinical Settings: A Cross-Sectional Study

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Abstract

Background: Some health care providers feel uncomfortable to lead cost communication. They spend most of their time providing psychological and physiological care, while the willingness to discuss costs with their patients is uncertain. **Objective:** We aimed to explore Jordanian nurses' and physicians' attitudes toward cost communication with patient and explore potential predictors of this action. **Methods:** Descriptive correlational survey design was conducted in 2019. A questionnaire was used to measure attitudes regarding the cost communication. A total of 122 Jordanian nurses and physician from a governmental hospital were participated in this study. Pearson's r coefficient correlation and multiple regression were used to analyze the data. **Results:** Jordanian health care providers demonstrated a positive attitude toward communicating cost issues with their patients. Most of them (68%), preferred to explain the cost that patients have to pay. The years of experience significantly predicted health care provider's positive attitude in cost discussion ($\beta = 0.214$, $P < 0.05$). **Conclusion:** Findings support the importance of discussing treatment-associated costs with patients. Jordanian healthcare providers are comfortable with and desire to discuss treatment-associated costs. Furthermore, the present findings emphasize to develop educational programs for health care provides to improve their financial and communication management skills.

Keywords: *Costs-discussions, Health economic, Jordan, Nurses, Physicians*

Introduction

The continuous rise in healthcare sectors expenditures has been at the forefront of debates and controversies among health professionals, legislators, economists, and many other stakeholders.[1] Although organizations are becoming more oriented toward shrinking budgets, the matter is different in the healthcare sectors, which highlights the importance of considering healthcare costs. Although the accessibility and quality of care are supported, the next paramount concern is cost.[2] Many countries, including the United States (US), Australia, Europe, and Middle East countries have shown a faster growth in health expenditures when compared it with the other highly uses goods or Broad Economic

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Categories.[3,4] Each cost-related decision must have a methodological basis that grounds the monetary and clinical values.[5,6] Currently, healthcare expenditures are 8.1% of the overall general budgeting in Jordan. In 2017, the total expenditures on healthcare exceeded $3 billion, although difficult to estimate, the cost of healthcare is projected to grow from approximately $3 billion in 2017 to $6 billion in 2022.[7] The inpatient costs, in Jordan, contributed to 50% of all costs while it was 17% for outpatients. In general, the average cost per visit to emergency departments was 19.7US $, and for each admission, the average cost was 674.2US $. The average cost per surgery was also 454.2 US $.[8] Jordan created many health reforms over the last two decades to introduce a health equity funds on the national level. These reforms have increased equitable access to health-care services. But, the out-of-pocket payments (people paying for their own care) are still high.[9,10]

Many contributing factors affect hospitalization expenditures, including the aging population, advancing technology, and implementing new treatment modalities.[11] At the same time, nursing impacts on patient clinical outcomes are known and well-studied; however, it is not clear how nurses affect the costs of hospitalized patients. Ostensibly, as the poor quality of nursing care such as medication errors and falling down require additional resources to compensate damages, the improving nursing care quality involves added expenses as well.[12,13] At the payment level, nursing care for ill patients has been overlooked by health care system administrates. A recent study concluded that nurses are aware about their contributions to patients' bills.[14] However, many hospitals are charging nursing care as a daily room service while it is now more recommended than ever to list nursing care as an independent reimbursement data.[15,16]

Recent publications have promoted the health care providers to communicate the cost issues with their patients. It is expected that the financial communication could affect patient overall satisfaction with the health care system.[17,18] Further, it is expected that considering costs in clinical decisions would be reasonable because (a) for their financial wellbeing, patients should be participate in decisions affecting their own expenses;[10] (b) discussing costs with patients may raise their appreciation and awareness about limited resources and help them to understand the importance of cost-conscious decision making;[19] and (c) health care providers will not make assumptions about patients' preferences.[5]

There are many barriers that make health care providers are reluctant to discuss cost with their patients. First, cost uncertainty as it is difficult to seek the exact cost of each clinical decision. Second, discussing each clinical decision is time-consuming. Third, many health care providers are not ready or prepared to discuss costs with their patients. Fourth, some health care providers feel uncomfortable to lead cost communication as it may compromise the relationship with the patients.[20,21] However, evidence that guide health care providers approach to such discussions are still needed.

Some believe that nurses and physicians held an ethical, legal, and social obligation to provide the best of care for their patients in a cost-effective manner.[22] Others believe that utilizing the health care system scarce resources are controlled by the organization's administrators, so it is not the business of health care providers. However, some believe that health care providers are mediators between patients and organizations administrators, and have the duty to inform patients about costs.[20] Nonetheless, no study described nurses' and physicians' attitudes toward cost communication with their patients in Jordan.

Objectives

We aimed in the current study to describe nurses' and physicians' attitudes toward cost communication with their patients.

Methods

Study design and participants

This study used a descriptive correlational design. Nurses and physicians from a governmental hospital in Jordan were participated in this study. The hospital located in Amman and has a total capacity of more than 1000 beds. It employs about 850 physicians and 1300 nurses and provides different types and levels of medical and nursing care to any Jordanian or non-Jordanian patients who seek care at the hospitals or its related clinics.

The sample size was calculated by using G*Power software (Uiversität Kiel, Germany). Using a power estimate of 0.80 with alpha set at 0.05, and a medium effect size, it was estimated that the required sample size was 122 subjects. Participants were identified conveniently according to their availability and eligibility. The inclusion criteria were; health care providers (nurse/physician), clinical experience of 5 years or more, and a willingness to participate. However, health care providers who were in managerial positions were excluded from the study. Data were collected between May 2019 and September 2019.

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Data collection instruments

The demographic data were collected by a questionnaire regarding age, gender, marital status, years of experience, and number of meeting patient/week. A 10-item self-reported instrument was adopted from the study of Altomare *et al*.[23] This scale measures the attitudes and engagement of health care providers toward cost communication with their patients. The scale was translated from English into Arabic by a professional English-language translator. Then, the scale was back-translated from Arabic into English by a professional English-language expert. Later, all translators back-translated the scale to confirm the content accuracy by both forms replicating the same conceptual meanings. The researcher and two other experts in the field carried out the final review for further modifications. All items are scored on a 5-point Likert-scale from 1 (strongly disagree) to 5 (strongly agree); higher scores reflected more engagement with cost discussions. The scale is valid and reliable with Cronbach's alpha of 0.87. Nurses and physicians who were eligible were approached by the primary investigator. A coded questionnaire was provided to each participant and they were asked to respond anonymously and return it to the primary investigator.

Ethical considerations

Approval number 12-5/2019 was assigned to this study by the responsible institutional review boards. Participants were asked explicitly to participate voluntary in the study and they told that results would be reported without any personal identifiers. We followed Helsinki declaration of ethics and observed all participants' rights (e.g., confidentiality, privacy, withdrawal). Permission and consent have been obtained from each respondent by reiterating the purpose of this study. Members who agreed to participate signed an informed consent form before receiving the study questionnaire.

Data analysis

Data were analyzed using the SPSS software, Version 26 (SPSS Inc., Chicago, IL, USA). Data were tested for the normality using the Kolmogorov– Smirnov test. Furthermore, frequencies and percentages, means and standard deviation (SD) were calculated to describe study variables including demographic variables. Pearson's correlation coefficient was used to correlate nurses' and physicians' attitudes toward cost discussions with their demographical variables. Multiple linear regression analysis (forward technique) was employed to predict the factors associated with nurses' and physicians' attitudes toward cost discussions. After converting the categorical variables to dummy coded variables, the significant factors in the univariate analysis were entered into the multivariate analysis. Tests with $P < 0.05$ were considered statistically significant.

Results

One hundred and twenty-two subjects were completed the study. A majority of our participants were males (67.21%), had 5–10 years of experiences (51.63%), and married (72.95%). Most of the participants were nurses (54.09%). The age of the participants ranged from 28 to 52 years (Mean = 39.72, SD = 6.64). Also, the vast majority of the subjects visited each patient <3 times per week (58.19%) [Table 1]. Table 2 presents the proportions of health care providers' attitudes toward cost discussions; overall their attitudes were positive and preferred to communicate cost. About three-quarter of nurses and physicians were strongly disagreeing considering the costs to the patient or insurance company when choosing a new treatment. However, about 68% of nurses and physicians are strongly agreeing on the importance of explaining the costs the patients will have to pay for their treatments. Also, about 70%, of health care providers were strongly agree that every patient should have access to effective treatments regardless of their cost. Further, a total of 33% of surveyed physicians neither agreed nor disagreed with the statement "health care providers should explain to patients the costs society will have to pay for the patient's treatment," and only 14% of nurses neither agreed nor disagreed with the statement "I have easy access to quality

Table 1: The sociodemographic characteristics of study participants (*n*=122)

Variable	Frequency (%)
Gender	
Male	82 (67.21)
Female	40 (32.78)
Years of experiences	
5-10	63 (51.63)
11-15	37 (30.32)
>15	22 (18.03)
Marital status	
Single	33 (27.04)
Married	89 (72.95)
Major specialty	
Nurse	66 (54.09)
Physician	56 (45.90)
Meeting patient/week	
Less than three times	71 (58.19)
Four – Seven times	41 (33.60)
More than seven times	10 (8.19)

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Table 2: Attitudes toward cost discussions

Statement	Nurses			Physicians		
	Strongly disagree/ disagree (%)	Strongly agree/ agree (%)	Neither agree nor disagree (%)	Strongly disagree/ disagree (%)	Strongly agree/ agree (%)	Neither agree nor disagree (%)
Health care providers should explain to patients the costs the patient will have to pay for his or her treatment	21.77	67.98	10.25	23.21	68.56	8.23
Health care providers should explain to patients the costs society will have to pay for the patient's treatment	41.55	47.67	10.78	35.79	31.44	32.77
When choosing a new treatment, health care providers should consider the costs to the patient	72.26	22.54	5.20	71.42	16.17	12.41
When choosing a new treatment, health care providers should consider the costs to the insurance company or government	72.26	20.62	7.12	74.65	15.81	9.54
I feel prepared to discuss cost effectiveness of treatments I recommend	43.69	44.51	11.80	35.47	51.33	13.20
I have easy access to quality resources which assist me in cost discussions with my patients	48.67	36.97	14.36	45.23	43.36	11.41
Society should only pay for treatments that improve survival, not those that only improve response or disease control	44.51	45.27	10.22	54.77	36.69	8.54
If two treatments are the same, the doctor should prescribe the cheaper medicine	61.06	28.58	10.36	63.14	25.35	11.51
Every patient should have access to effective treatments regardless of their cost	27.74	69.05	3.21	24.56	70.82	4.62
The JFDA should consider cost effectiveness of the treatment before issuing an approval	40.03	55.49	4.48	31.21	62.44	6.35

JFDA: Jordan Food and Drug Administration

Table 3: Correlation coefficients between participants attitudes toward cost discussions with their demographical variables

Attitudes toward cost discussions	Attitudes toward cost discussions	Age	Years of experiences	Marital status	Major specialty	Meeting patient/week
Age	0.217[a]	1				
Years of experiences	0.621[b]	0.532[a]	1			
Marital status	−0.024	−0.154	0.351[a]	1		
Major specialty	0.374	0.269	0.241[a]	−0.234	1	
Meeting patient/week	0.641[a]	0.415[c]	0.584[b]	0.265	0.482[a]	1

[a]$P<0.05$, [b]$P<0.01$, [c]$P<0.001$

Table 4: Predictors of participants attitudes toward cost discussions from their demographics

Variables	Attitudes toward cost discussions (n=122)		
	B	SE	*B*
Age	0.214	0.102	0.192[a]
Years of experiences	0.274	0.087	0.214[a]
Marital status	0.041	0.062	0.055
Meeting patient/week	0.175	0.104	0.158[b]
Major specialty	0.225	0.130	0.182
R^2			0.433[c]

[a]$P<0.05$, [b]$P<0.01$, [c]$P<0.001$. SE: Standard error

resources which assist me in cost discussions with my patients." To identify the correlations between sample's sociodemographic and health care providers' positive attitude toward cost discussions [Tables 3 and 4], the following variables (age, years of experiences, marital status, major specialty, meeting patient/week) were selected and after ensuring that there is no problems with multicollinearity, their positive attitudes to discuss cost is increased when their age, years of experience, and number of meeting with patients are increased. However, none of these correlations was very high (above 0.70). The regression model explained 43.3% of the variance and that the model was a significant predictor of health care provider's experiences, $F(5,116) = 0.433$, $P < 0.001$. It was found that years of experiences significantly predicted health care provider's attitudes ($\beta = 0.214$, $P < 0.05$), as did meeting patient/week and major specialty ($\beta = 0.182$, $P < 0.01$); $\beta = 0.158$, $P < 0.01$) respectively, while age and marital status did not.

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Discussion

The current study is considered the first one that conducted in Jordan to describe nurses' and physicians' attitudes toward cost communication with their patients. We found that a majority of our sample felt comfortable to discuss cost issues with their patients; also, Jordanian health care providers seemed to prioritize treatment benefit regardless of the financial cost. In comparison with international studies, this outcome is consistent with many of them.[21,24,25] Different samples of health care providers demonstrated moderate to high levels of experience in discussing cost issues with their patients.[24-26] However, our result is contradicting to the studies conducted in US which found that most nurses and physicians were not initiating discussions about cost issues, drug costs specifically, with their patients.[27,28] These discrepancies maybe because of the differences in health insurance systems and using different, measurement method, design, data collection procedure, or target group.

A survey of physicians revealed that 90% of agreed physicians had a responsibility to contain costs in their discussions.[29] Our study indicated that physicians feel similarly, because the majority of them, about 69%, agreed that it is their responsibility to consider out-of-pocket costs to patients. However, there is less agreement that it is the doctor's role to explain the costs society will have to pay for the patient's treatment; only 31% of our surveyed physicians agreed with that statement.

This could be explained because the healthcare providers in the current study were selected from the governmental hospital in Jordan, which patients in this hospital were under the umbrella of governmental insurance (they did not pay for health care). Hence, healthcare providers did not care to discuss the costs with their patients.

Although the majority of surveyed nurses and physicians feel comfortable to initiate cost discussions, we found that many of them felt that there had limited quality resources which could assist them in cost discussions. Less than half of the surveyed nurses and physicians (36% and 43%, respectively) agreed that they had adequate resources to discuss costs, which means that greater efforts toward educating healthcare providers' about costs of care may be necessary.

Specific variables including age, years of experience, and number of meeting patients/week were significantly correlated with the experiences of discussing cost issues among the study sample. This outcome was partially consistent with that of a previous study conducted in the USA, and found that physician's year of experience associated with their attitude toward discussing costs with patients, while, other factors such as malpractice claims, disciplinary action, and the size of the group in which the physician practices had no associations.[30] The possible reasons related to the type of the insurance and the hospital, as well as the large number of patients can be one of the time obstacles that limit discussion of costs. In addition, the years of experience were significantly predicted and associated with health care providers' discussion about costs. It is expected that lack of experiences reflected into more expensive care.[31] That is, more experienced health care providers may be more familiar about cost issues, thus, more comfortable to talk about the finance issues.[32]

The number of meeting patients/week was correlated strongly with health care providers' discussion about costs, as 15.8% of the variance in the data could be explained by this predictor. This result is consistent with the finding of a previous literature that the number of exposure between patients and health care providers is associated with discussions about costs.[14,33,34] A greater issue with the impression that visits health care providers are too fast and the level of interaction is too little to make substantive conversations and confidence. Hence, increase the number of meeting patients builds meaningful conversation and trust.

The limitations of this study are; small sample, using of convenience sampling method, and recruiting health care providers from the governmental hospital in Jordan; all these limit the generalizability of the current study to all Jordanian health care providers. Another limitation is that the descriptive design, which limits our ability to establish a causal relationship. Also, the impact of social desirability is possible, which taken place for the data were collected via self-reporting tools.

Conclusion

Health care providers in Jordan have demonstrated a positive attitude toward communicating cost issues with their patients. Also, nurses and physicians with more years of experience were feeling more confident and competent toward initiating such discussions. However, it appears that in the novice health care providers this situation is different.

This study demonstrated the importance of getting health care providers and patients to talk openly about costs issues. However, studies with larger samples and from different settings are highly recommended.

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Health care providers, stakeholders, and policymakers are invited to use the findings of this study to establish programs and policy to reduce this issue. Such programs can be expandable for various fields such as nursing students, and nurse managers. This may help consumer cost-sharing levels ideally to encourage the clinically appropriate use of health care services.

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Conflicts of interest

There are no conflicts of interest.

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