HEALTH PROMOTION

Does moral sensitivity contribute to patient satisfaction? A cross-sectional survey in educational hospitals

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Keywords

Ethics • Patient Satisfaction • Quality of Health Care • Physician-Patient Relations • Physicians

Summary

Introduction. *Our study aims to assess interactions between the moral sensitivity of physicians and the satisfaction of patients.*
Methods. *This is a cross-sectional study. Data were collected by a standard questionnaire of the physicians' moral sensitivity about decision-making and a researcher-made patient satisfaction questionnaire. The physicians were selected through the census method, and patients were selected using quota sampling to equal the selection of each physician from each work shift. All information was analyzed by SPSS statistical software version 23.*
Results. *The mean score for physicians' moral sensitivity was 91.6 ± 0.63 which shows a high level of moral sensitivity. The average patient satisfaction was 61.97 ± 3.55 out of the total score (23-115) which shows a moderate level of satisfaction with the highest scores in the domain of "professionalism" and the lowest scores were related to the domain of "Technical Quality of Care".*
Conclusion. *For improving patient satisfaction, adopting appropriate strategies like performing the periodic evaluation of this phenomenon and providing some codified training in this regard are required to increase the level of moral sensitivity of physicians and provide high-quality care.*

Introduction

Sensitivity to moral subjects is considered one of the professional qualifying criteria for physicians [1, 2]. Physicians also need to apply morals, reasoning, moral sensitivity, and an appropriate understanding of moral subjects ideally. It gives them the ability to accurately and timely diagnose moral status and make a decision accordingly to prepare the situation for improving the quality of moral behaviors [3]. Patient care is a key concept in the medical profession and physicians that provide these services need to have personal, social, and moral abilities because they interact with the patients and face different moral subjects that make the decision-making process difficult [4]. One of the subjects that play an important role in the process of making moral decisions is moral sensitivity [5]. Moral sensitivity not only sensitizes physicians to the moral subjects of/her professional environment but also helps him/her to make moral decisions for their patients.
Identifying a moral conflict, apprehending a patient's susceptible situation contextually and intuitively, and being aware of the ethical consequences of decisions made are at the core of moral sensitivity [6]. The literature review highlights moral sensitivity as an effective factor in the ethical decision-making process [7].
Moral sensitivity introduces moral judgment, moral stimulation, and moral function, and is intertwined with moral care. One of the results of moral sensitivity is its effect on the satisfaction of patients [8].
Moral sensitivity as the basis of medical ethics provides a basis for physicians to take care of patients morally and efficiently, which results in increased patients' satisfaction. As an index of the quality of care, researchers are attaching tremendous importance to patient satisfaction regarding healthcare and treatment [9, 10]. A common feature of recent studies focusing on the assessment of treatment outcomes is patient satisfaction [11, 12]. Patient satisfaction by definition is fulfilling a patient's needs and wishes satisfactorily in a manner that he/she attaches tremendous importance to his/her satisfaction [13, 14]. Clinical outcomes, patient retention, and patient-doctor relationships are influenced by patient satisfaction. Satisfied patients play a key role in their treatment process and are more probable to complete the medical treatment; they cooperate fully and foster a deeper and lasting relationship with

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the medical staff boosting compliance. Moreover, they keep using health services, cultivate a relationship with a specific physician, and recommend the doctor to others [14, 15]. It is believed that there is a link between deeper satisfaction and measures of healthcare outcomes due to compliance with treatment and keeping up with appointments. Patient satisfaction studies are conducted globally in health care services [16-19].

Moral sensitivity is considered as knowledge and attention to moral values. On the other hand moral sensitivity is the ability to diagnose moral issues and select the best response for them. It is expressed in a study that reducing moral sensitivity causes nurses to be inattentive to these issues, and moral sensitivity play important role in the decision-making of medical personnel [20]. Attention to moral issues is cause for more moral sensitivity and moral behavior in a decision-making situation in medical staff. According to the results of another study, there is a significant correlation between moral sensitivity and respect for patients' rights [21].

Hospitals or health care systems could benefit from the research on patient satisfaction. First, patient satisfaction sheds light on the ways the services are delivered and it helps the management and medical staff to have access to the information as part of quality improvement efforts. These studies aim to discover the optimum practices and direct the solutions toward solving similar problems they come across in their institutions [22, 23]. Second, increasing performance transparency is what the hospitals and the health care system are trying to achieve. Patients' views on how health care services are running are integrated by patients' satisfaction studies [24]. It has been shown that patients attach tremendous importance to physician-related factors, chiefly those concerning communication ability, interpersonal and technical skills, and accessibility [25, 26].

Objectives

As far as we know, there was not any similar study previously conducted to explore the examination of the relationship between the patients' satisfaction and physicians' moral sensitivity. Given the significance of characteristics of physicians' moral sensitivity and patients' satisfaction and the finite number of studies in this regard, the present study tries to shed light on the relationship between the moral sensitivity of physicians and the satisfaction of patients. Early diagnoses and treatment could be achieved by outpatient healthcare services. Yet, this field needs to be explored more precisely. Studies show that outpatient clinics are the main point of contact with the patient and if patient satisfaction is achieved, the patients are more likely to follow particular medical regimens and treatment protocols. This research aimed to determine the effect of physicians' moral sensitivity on patients' satisfaction.

Methods

Study drafting

This study was cross-sectional research conducted among outpatients and physicians working in hospitals dependent on Shahid Beheshti University of Medical Sciences (SBMU) in 2018 and 2019, Iran. This study set consisted of outpatient clinics in four selected hospitals. The survey lasted for five weeks.

Participants

The participants of this study were two groups:

1. the first group consisted of all the working physicians that work in Shahid Beheshti University of Medical Sciences of four educational hospitals in Tehran, Iran. The physicians were selected through the census method. The number of physicians working in the aforementioned outpatient clinics was 106, which decreased to 100 because of the reluctance of 6 physicians to participate in the research. We included all 100 patients in the analysis.
   Inclusion criteria for physicians were as follows: work experience at a clinic at least for 3 months, experiencing at least a full working shift in the target ward, willingness to participate in the study, and completing the questionnaire. Exclusion criteria included having less than three months of experience, lack of cooperation, and satisfaction to participate in the study. As mentioned, just six physicians were not included in the study because they did not meet the inclusion criteria;
2. 400 patients took part in the study. Patients were selected using quota sampling to equal selecting of each physician from each work shift. Inclusion criteria for patients were as follows: age range of 15 to 65, willingness to participate in the study and complete the questionnaire, verbal communication ability with the researcher, and not being a member of the medical staff. At the beginning of each physician shift, a moral sensitivity questionnaire has been completed. Then, interviewers completed the questionnaire for 4-5 patients of each physician. Selecting 4-5 patients of each physician was done by systematic random sampling (one out of each 5 patients) because the patient's list was ready at the beginning of their shift. Therefore; we randomly selected one patient out of each 5 patients on the list.

Data gathering tools

Demographic variables such as gender, age, degree, marital status, employment type, job history, and working shift were gathered by a form. The data are compiled by Lutzen's Corrected Moral Sensitivity Questionnaire (CMSQ) which includes 25 items. Likert score-based scoring with a point from 0-5 from "completely dissatisfied" to "completely satisfied" with the lowest and highest score of 0 and 100 respectively [27]. The minimum and maximum scores are 0 and 100, respectively. Scores of 0 to 50 indicate

low Moral sensitivity, 50-75 indicates moderate Moral sensitivity and 75-100 indicates high Moral sensitivity. This questionnaire was developed by Lutzen et al. In Sweden [27, 28]. The reliability of this questionnaire is estimated to be 0.76 in the United States [29] and 0.78 in Korea [30]. In Iran, Hassanpour et al. Translated the questionnaire from English to fluent Persian according to the criteria of the World Health Organization (translation of the questionnaires) and according to the cultural conditions of Iran. The same translation is then returned to the original language and matched to the original text. After collecting and examining the internal consistency of the questionnaire with Cronbach's alpha coefficient, it was calculated that the number 0.81 was obtained and confirmed [31].

To assess patient satisfaction, a researcher-made questionnaire was used. To check the validity of that questionnaire, the Content Validity Ratio (CVR) and Content Validity Index (CVI) were carefully examined and the necessary corrections were made. Ten health management experts were asked about the items. The Content Validity Ratio and the Content Validity Index were 0.83 and 0.69, respectively. The reliability of the instrument was also evaluated using Cronbach's alpha coefficient which was 0.872. The questionnaire included 23 items (such as "Your waiting time after admission to the doctor's office" or "Your attitude toward hospital staff") and its subscales are related to three general competencies, including interpersonal and communication skills, professionalism, and technical quality of care provided by the physician. Each item was scored using a Likert scale from 1-5 points for completely dissatisfied, dissatisfied, moderate, satisfied, and completely satisfied, respectively. Here, positive and negative tools are used to evaluate the points, and given that the points in the negative modes are estimated in reverse. The total score of satisfaction for each respondent ranged from 23 (dissatisfied) to 115 (completely satisfied). Scores below 54 indicate dissatisfaction, between 54 and 85 indicate moderate satisfaction, and above 85 indicate complete satisfaction.

Data gathering

After obtaining the legal and moral approval from Shahid Beheshti University of Medical Sciences and delivering, the researcher visited four relevant hospitals and obtained research permits from the hospital manager, and informed the managers of the outpatient clinic setting after the letter of introduction from Shahid Beheshti University of Medical Sciences Ethics Committee.

After providing explanations about the purposes of this research, the researchers handed over the questionnaires to the participants. The physicians completed the Self-report questionnaires at their suitable time and place and returned them. They were reminded of the secrecy of their information and general analysis. The participants were allowed to leave at will. At the beginning of the meeting, the participants signed the informed consent form.

Ethical approval

The Shahid Beheshti University of Medical Sciences Ethics Committee, Thran, Iran, approved this study (Ethics code IR.SBMU.RAM.REC.1394.341) and legal permissions were obtained before data accumulation. Participants were informed of the voluntary nature of their participation in this study and were provided with all the essential information on this study objective and how to complete the questionnaires. Besides, participants were asked not to write their names on questionnaires. The informed consent form was filled out by the samples of the study. The information about the nature of the research was also available in an introductory letter attached to each questionnaire. The participants were able to see the results of the research at will.

Data analysis method

Information was analyzed by SPSS version 23. Descriptive statistics including percentage, standard deviation (SD), and mean were used to portray patient satisfaction levels and moral sensitivity. Shapiro-Wilk test was used to certify the normal distribution of data and the Spearman correlation coefficients, Pearson, and one-way analysis of variance (ANOVA) were used at the degree of significance of $p < 0.05$ for compare variables.

Results

Characteristics of the physician and the relationship of their demographic factors with moral sensitivity are shown in Table I. According to these results, there was only a significant relationship between the level of physicians' education and moral sensitivity ($p = 0.049$). In other words, residents have more moral sensitivity than others (general practitioners and specialists).

Characteristics of patients and the relationship of their demographic factors with satisfaction are shown in Table II. According to these results, there was only a relationship of significant between the supplementary insurance and the satisfaction of patients ($p = 0.0.00$). In other words, patients with more supplementary insurance have more satisfaction compared to others.

The mean score of physicians' moral sensitivity was 91.6 ± 0.63, which shows a high level of moral sensitivity. The mean scores of moral sensitivity sub-scales are presented in Table III. As shown, among all levels of moral sensitivity that including "honesty and benevolence" had the highest mean score (26.54 ± 3.08), while "The level of career knowledge" had the lowest (3.73 ± 1.64) one. The results show that there is a correlation between different levels of sensitivity and the total score of moral sensitivity, and then awareness and honesty have the highest correlation with the total score. Furthermore, among all the levels of patient satisfaction, "professionalism" had the highest mean score (27.97 ± 3.55), while "Technical Quality of Care" had the lowest (16.41 ± 1.28). Overall, satisfaction was also moderate (61.97 ± 3.55). Besides, there is a

Tab. I. Relationship between physicians' demographic factors and moral sensitivity.

Characteristics	Classification	Moral sensitivity		Chi-square	P-value
		Middle	High		
Age	< 30 30-40 40-50 > 50	7 (77.78) 37 (74.00) 27 (77.14) 5 (83.33)	2 (22.22) 13 (26.0) 8 (22.86) 1 (16.67)	0.32	0.995
Gender	Male Female	36 (78.26) 39 (73.58)	10 (21.74) 14 (26.42)	0.29	0.588
Marital status	Single Married Divorced Widow	23 (82.14) 49 (75.38) 1 (33.33) 2 (100.0)	5 (17.86) 16 (24.62) 2 (66.67) 0 (0.00)	4.26	0.234
Education	General Resident Specialist	15 (62.50) 15 (82.33) 44 (80.00)	9 (37.50) 3 (16.67) 11 (20.00)	6.47	0.049*
Employment	Official Contractual Other	18 (78.26) 25 (71.43) 33 (78.57)	5 (21.74) 10 (28.57) 9 (21.43)	0.61	0.734
Experience	< 10 year 10-20 year > 20 year	41 (75.93) 25 (75.76) 10 (76.92)	13 (24.07) 8 (24.24) 3 (23.08)	0.007	0.996
Shift	Morning Afternoon Night	8 (61.54) 3 (75.00) 65 (78.31)	5 (38.46) 1 (25.00) 18 (21.69)	1.73	0.420

Tab. II. Relationship between patients' demographic factors and satisfaction.

Characteristics	Classification	Moral sensitivity		Chi-square	P-value
		Middle	High		
Age	< 30 30-40 40-50 > 50	18 (14.06) 32 (17.20) 15 (20.83) 3 (27.27)	110 (85.94) 154 (82.80) 57 (79.17) 8 (72.73)	2.34	0.505
Gender	Male Female	36 (18.09) 30 (15.08)	163 (81.91) 169 (84.92)	0.65	0.419
Marital status	Single Married Divorced Widow	18 (19.57) 30 (12.99) 14 (22.95) 4 (28.57)	74 (80.43) 201 (87.01) 47 (77.05) 10 (71.43)	5.99	0.112
Education	Illiterate/Primary Highs school Academic	7 (25.00) 25 (14.97) 35 (17.24)	21 (75.00) 142 (85.03) 168 (82.76)	1.77	0.412
Employment	Student Housewife Retired Unemployment Other	8 (22.86) 15 (14.42) 6 (37.50) 5 (11.36) 34 (16.92)	27 (77.14) 89 (85.58) 10 (62.50) 39 (88.64) 167 (83.08)	7.09	0.131
Supplementary insurance	Yes No	20 (9.80) 47 (24.10)	184 (90.20) 148 (75.90)	14.58	0.001*

correlation between all levels of satisfaction and total satisfaction score, and at the professional level, this correlation is stronger.

The correlation between the physician's moral sensitivity and patient satisfaction is shown in Table IV. Based on these results, there is a positive relationship between the total score of moral sensitivity and satisfaction. Also, there is a correlation between all levels of moral sensitivity and the total score of satisfaction and vice versa. However, the correlation between the experience of moral problems and tensions and the total score of satisfaction is stronger. Also, there is a strong correlation between the total score of moral sensitivity and professionalism.

Discussion

According to the results of the present study, most physicians were highly sensitive in terms of moral

Tab. III. Mean of levels and total score of the physician's moral sensitivity and patient's satisfaction.

Questionnaire	Levels	Mean (SD)	R*	P
Moral sensitivity of physician	The level of respect for client independence	10.35 (1.97)	0.51	0.005
	The awareness level of physicians' communication with patients	22.07 (3.15)	0.75	< 0.001
	The level of career knowledge	3.73 (1.64)	0.05	0.781
	The experience of moral problems and tensions	10.24 (1.91)	0.19	0.086
	Using ethical concepts to make moral decisions	18.67 (2.72)	0.26	0.072
	Honesty and benevolence	26.54 (3.08)	0.64	< 0.001
	Total	91.06 (0.63)		
Satisfaction of patient	Interpersonal and communication skills	17.63 (1.43)	0.68	< 0.001
	Professionalism	27.92 (1.98)	0.82	< 0.001
	Technical quality of care	16.41 (1.28)	0.73	< 0.001
	Total	61.97 (3.55)		

* Pearson correlation.

Tab. IV. Correlation of levels and total of physician's moral sensitivity with patient's satisfaction.

Moral sensitivity of physician	The satisfaction of patients (p-value)			
	Interpersonal and communication skills	Professionalism	Technical quality of care	Total
The level of respect to the client independence	0.550 (0.002)	0.441 (0.005)	0.520 (0.002)	0.486 (0.004)
The awareness level of physicians' communication with patients	0.480 (0.004)	0.782 (0.000)	0.503 (0.002)	0.515 (0.002)
The level of career knowledge	0.493 (0.002)	0.545 (0.002)	0.562 (0.001)	0.584 (0.001)
The experience of moral problems and tensions	0.696 (0.000)	0.826 (0.000)	0.911 (0.000)	0.897 (< 0.001)
Using ethical concepts in moral decision making	0.536 (0.001)	0.669 (0.000)	0.772 (0.000)	0.768 (0.000)
Honesty and benevolence	0.544 (0.001)	0.701 (0.000)	0.515 (0.001)	0.579 (0.001)
Total	0.553 (0.001)	0.937 (0.000)	0.442 (0.003)	0.611 (0.001)

values. This finding is in agreement with other results in this field [27, 32]. Also, findings showed that the level of physicians' moral sensitivity and demographic variables, including gender, marital status, and professional experience were not correlated significantly. To the best of our knowledge, no study has been conducted and published on the effect of moral sensitivity in physicians on patient satisfaction.

In our study, there was a significant relationship between moral sensitivity and the educational level of physicians. Moral sensitivity was mostly reported in the residents. In a study to investigate the effect of ethical education on medical students, it was found that education affects students' professional aspects [33]. In a study in India, patients' satisfaction levels were measured based on the quality of services received and their insurance status. It was found that insurance does not affect patient satisfaction [34]. Contrary to these results, in our study, there was a strong and significant relationship between supplementary insurance and patient satisfaction. This relationship can be associated with the fact that those with supplementary insurance receive more health care compared to others. These supplementary services can improve the treatment of people and boost their satisfaction consequently. Considering the results of this research and the percentages expressed (dissatisfied and relatively satisfied), it seems that appropriate measures should be taken by the authorities to improve the quality of health insurance services to reach the desired level of customer satisfaction. Also according to the characteristics of individuals. Satisfied with these services to those who were dissatisfied or relatively satisfied (fast and complete fulfillment of insurance service needs, commitments, etc.) Serious attention of officials to make arrangements for customer satisfaction can be very helpful.

Of all the levels of moral sensitivity, "honesty and benevolence" and "the level of career knowledge" received the highest and the lowest scores, respectively. "Benevolence and Honesty" points to such concepts as honesty, trust between patients and physicians, the patients' reactions to care, and the insight of patients and insight about their disease. According to these findings from our study, " exposition benevolence" also has gotten the highest score in a study conducted by the study of Abdou et al. [35]. Studies have examined only the aspect of moral sensitivity and have not studied the consequences of this aspect. Patient satisfaction can be considered an important consequence of moral sensitivity in physicians, which has been measured in our study.

In Lutzen et al. research, levels of applying ethical concepts and respecting the care seeker's independence and the levels of being honest and benevolent received the highest and lowest scores, respectively [7]. Because the physicians are still in apprenticeship, they become greater sensitive to "benevolence and honesty" and thus pay more consideration to theoretic topics and their usage in the clinical wards. "The level of career knowledge" is a level of sensitivity to morals that is

related to the topics about the intentions that going to be made without the participation of the patient. This level gained the lowest score in our study, which Indicates that physicians still have impediments in this context and so they don't have the correct attitude toward it. In other words, they don't pay attention to the patients' participation in their therapeutic care decisions. The fact that patients have no specified role in making decisions about their therapeutic care and the bulk of decisions are made by the healthcare members including physicians may be ascribed to the paternalistic viewpoint that is still overbearing in the Iranian healthcare system [36, 37].

Results indicated a positive relationship between the moral sensitivity of physicians and patient satisfaction, but we could not find studies in the available literature on the correlation between the physicians' moral sensitivity and patients' satisfaction. Studies on sensitivity and ethical challenges have suggested that ethical sensitivity is an effective factor for ethical performance and can lead to proper ethical performance [27, 38]. Noh et al. [39], in their study, believed that the role and importance of moral sensitivity and adherence to ethical and legal principles in the care environment require awareness and sensitivity of these principles and it can guarantee the correct implementation of care [39]. The findings of the present study showed that the patients were moderately satisfied.

The results showed that the quality of services is far from the desired level. In the research conducted by Makarem et al., 50.8% of participants reported deep satisfaction with care services [40] and this finding was inconsistent with our findings. Previous studies revealed that in addition to ethical skills, different factors influence patients' satisfaction such as educating patients [41], responding to questions and requests of patients [41-43], communication skills, culture, previous experiences, personal and social valencies, and patients' sobriety of their rights [44, 45].

"Technical Quality of Care" was a level of patient satisfaction focused on patients' perceptions of the physician's professional knowledge and expertise. This level received the lowest score in this present study. It seems that physicians pay less attention to the role of caring due to the high workload and high load referral of patients. The important role of healthcare providers has been shown in previous studies [46-49]. Re-evaluation of medical care quality standards, especially in communication dimensions with a patient-centered approach, is necessary to increase the appropriate communication between patient and physician and to pay attention to patients' needs in different dimensions.

Of all the levels of patient satisfaction, "professionalism" received the highest score in the present study. It can be said that promoting different aspects of professionalism such as moral sensitivity could boost physicians' performance by influencing their mindset and behavior, thus patients' satisfaction will be boosted. To improve and promote patient satisfaction, the patient-centered care approach must be widely taught and implemented in the country. For this to be operational, the influencing factors must be identified. Placing the title of patient-centered in the level of the academic education course of the medical course, placing patient-centered care in the accreditation criteria of hospitals, and implementing patient-centered care methods in medical centers can help the general implementation of patient-centered care in the country. In this study, demographic variables and patients' satisfaction were not correlated. A study reported that variables such as age and gender do not influence the patients' satisfaction significantly [50].

Strengths and limitations

The present study has several limitations. This was a cross-sectional study and therefore does not allow causal inference. Second, Sampling was done by the conventional method and eventually, the assessment of self-reported behavior rather than measuring objective behavior was another limitation of the study. Finally, the study was conducted in one city in Iran and hence cannot be generalized to the entire population; replication is recommended in other regions or nationwide.

However, the study has several strengths. According to the searches, this is the only study that has been done on the relationship between the moral sensitivity of physicians and patient satisfaction in Iran, and the findings of the present study can be a basis for future research. The response rate was high. Although data were based on self-report, this method is often necessary to collect data on moral sensitivity and patient satisfaction.

Conclusion

Our research was expressive that there is a correlation between the satisfaction rate of patients and the level of physicians' moral sensitivity to patients; in other words, physicians' increased level of moral sensitivity will increase the satisfaction rate of patients. As there is not adequate scientific evidence about this subject, our results could be a starting point for more assessments. Since there is a direct interaction between moral sensitivity and satisfaction rate, physicians are required to improve their level of moral sensitivity for taking care of patients. The healthcare system administrators could use the results of the present study to highlight the importance of moral sensitivity in making moral decisions in the work environment, and prevent irreparably and imposed damages due to the failure to observe the principles of professional ethics in the healthcare system. Boosting associations between physicians and patients lead to meeting patients' rights and improving the efficiency of healthcare centers.

Recommendations

Regarding the limitations of the present study, it should be mentioned that although a cross-sectional study was used to investigate the relationship between predicting variables and outcome at a specific point in time,

longitudinal predictions could not be made in this study. Therefore, it is suggested that longitudinal research studies be designed and implemented to investigate causal relationships in this field.

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Conflict of interest statement

The authors have no conflicts of interest.

Authors' contributions

TM, AM: Design. TM, TM, AM, TAP: Writing. TM, MM: Data Collection and/or Processing. A-HA, MM: Analysis and/or Interpretation. AAA, TAP, TM: Critical Review. All authors have read and agreed to the published version of the manuscript.

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