

Evaluation of medical sciences students' awareness of the patients' rights charter: a cross-sectional study

Mahsa Khedmatizare¹, Maedeh Moosavipour¹, Nastaran Saeedi¹, Maryam Aghabarary^{2}*

1. BSc Student of Nursing, Student Research Committee, Alborz University of Medical Sciences, Karaj, Iran.

2. Assistant Professor, Social Determinants of Health Research Center, Alborz University of Medical Sciences, Karaj, Iran.

Abstract

Compliance with patients' rights by medical sciences students requires an understanding of the patients' rights charter. This study aimed to assess the awareness of medical sciences students regarding the patients' rights charter. A descriptive cross-sectional study was conducted, involving all final-year medical sciences students at Alborz University of Medical Sciences, Iran (n=370). Samples were selected using convenience sampling, and data were collected through a questionnaire designed to evaluate awareness of the patients' rights charter. The study included 269 students. The results indicated that over half of the students possessed a moderate level of awareness about the patients' rights charter. Analysis of specific domains revealed that the right to access services had the highest percentage, while the right to personal autonomy had the lowest percentage of awareness. Furthermore, analysis of variance revealed that medical students exhibited the highest level of awareness. Given the moderate level of awareness among medical sciences students regarding the patients' rights charter, it is essential to design and implement plans to enhance their understanding of patients' rights.

***Corresponding Author**
Maryam Aghabarary

Address: Social Determinants of Health Research Center, Alborz University of Medical Sciences, Karaj, Iran.

Postal Code: 3198764653

Tel: (+98) 26 34 64 37 05- 149

Email: m.aghabarary@abzums.ac.ir

Received: 1 Jul 2023

Accepted: 31 Oct 2023

Published: 30 Dec 2023

Citation to this article:

Khedmatizare M, Moosavipour M, Saeedi N, Aghabarary M. Evaluation of medical sciences students' awareness of the patients' rights charter: a cross-sectional study. J Med Ethics Hist Med. 2023; 16: 17.

Keywords: *Patient's rights; Awareness; Students; Medical sciences.*

Introduction

The concept of patients' rights, rooted in the Universal Declaration of Human Rights ratified by the United Nations in 1948, unequivocally asserts that every individual possesses an inherent right to life, freedom, privacy, unhindered social development, and respect for their dignity (1). This concept was introduced in the early 1970s in Western Europe, especially Scotland, and the United States. The Declaration of Lisbon, specifically addressing patients' rights, was adopted in 1981 (2). In Europe, patients' rights have been guaranteed by the Convention on Human Rights and Biomedicine, adopted in 1997 (also known as the Oviedo Convention) (3). Therefore, there exists a global agreement affirming that every patient is entitled to be informed about their rights and the responsibilities of healthcare providers (4). Patients are entitled to healthcare services that are readily accessible, equitable, and consistently provided. They should receive information about their treatment process, have the freedom to make decisions about their treatment, and be ensured privacy. Additionally, patients should receive respect for their psychological, social, and spiritual values (5).

According to a WHO statement, the patients' rights differ across countries, with the prevailing social and cultural norms of each country usually determining its patients' rights charter (6). The Patients' Rights Charter is a list of patients' rights published by the American Hospital Association in 1973. Originally consisting of thirteen listed rights, this Charter has since become a widely adopted model for American hospitals (7). Moreover, the European Charter of Patients' Rights, drafted by the Active Citizenship Network in 2002, governs basic issues related to patients' rights (4).

In Iran, the Patients' Rights Charter, comprising 5 chapters and 37 articles, was compiled in 2009 to delineate the rights of healthcare recipients and promote the observance of medical ethics (8). The chapters of this charter include the right to receiving appropriate services (14 articles), the right to access desired and enough information (11 articles), the right to choose and decide freely about receiving health services (9 articles), the right to privacy and confidentiality (4 articles), and finally the right to access an efficient system of dealing with complaints (3 articles) (9).

Healthcare providers play a crucial role in observing and implementing the patient's rights charter, a subject that garners significant attention

in medical ethics. Therefore, to enhance the quality of services within a healthcare system, students pursuing various medical sciences, as future healthcare providers, should possess a correct understanding of the concept of patient's rights. In a study by Aggarwal et al., it was found that although students had a fair understanding of the patient's rights charter, their information and awareness were not adequate (10). Mortazavi et al. found that about half of the students that participated in the study had a low level of awareness about the patients' rights charter (11). The results of a study by Karimyar Jahromi et al. revealed the students' moderate levels of awareness about different aspects of the patients' rights and their total awareness. Moreover, only 28% of the students had a good level of awareness in this regard (12). Samadbeik et al. also found that the majority of the students had moderate levels of awareness about the patients' rights charter (13). Healthcare providers who are unaware of the ethical concepts cannot offer proper health services to the patients (14, 15). Moreover, healthcare providers' awareness of the patients' rights has a marked effect on observing these principles (16). Observance of the patients' rights strengthens the patient-healthcare provider relationship, improves the quality of care, enhances recovery, reduces the

length of hospital stay, decreases the treatment costs and medical errors, increases the quality of the services, and reduces the patients' complaints (15, 17). The students of medical sciences are in direct contact with patients in hospitals as healthcare providers during their internship; therefore, they should be aware of and observe patients' rights (18). The inadequacy of training for medical students and inadequate knowledge, along with other factors, may be associated with irreversible consequences (15). A review of the literature suggests that students of various medical sciences repeatedly witness unethical practices by healthcare providers during their studies and may find themselves in situations requiring unethical conduct. Hence, it is logical to trace the roots of healthcare providers' inattention to patients' rights back to the student period (12). Given the significance of medical sciences students' awareness of patients' rights, the present study aimed to assess the students' awareness of the patients' rights charter at Alborz University of Medical Sciences. The design and implementation of this study were driven by concerns expressed by our students and faculty members regarding awareness of patients' rights and the identification of areas for improvement. Through the analysis of the results, our goal is to develop and implement

appropriate interventions to enhance the existing conditions. We anticipate that the insights gained from this study will assist relevant authorities in making informed decisions and planning for the future.

Methods

Study design, setting and participants

This descriptive cross-sectional study was conducted in 2020. The research population included all students in the final year of medical sciences, encompassing medicine, dentistry, pharmacy, nursing, health, anesthesiology, operating room (surgical technology), midwifery, and medical emergencies, as well as postgraduate students of nursing, midwifery, health, and residents of Alborz University of Medical Sciences, located in Alborz Province, Iran (n=370). Samples were selected using the convenience sampling method based on the inclusion criterion, which was the willingness to participate in the study.

Evaluation tool and data collection

The data collection tool was a questionnaire designed and validated by Ranjbar et al. (2010). The reliability of the questionnaire was assessed using the test-retest method. A correlation coefficient of 0.83 was obtained indicating the

acceptable reliability of the questionnaire (19).

This questionnaire had two sections.

The first section comprised nine questions on demographic characteristics, including age, sex, education level, academic major, admission year, semester, prior awareness of patients' rights chart, source of prior awareness about the patients' rights chart, and effectiveness of the source in improving awareness about patients' rights.

The second section assessed the students' awareness of patients' rights chart. This section included 29 four-choice questions in five domains, including the right to access services (4 questions), right to informed consent (8 questions), right to personal autonomy (6 questions), right to be informed of the treatment process (6 questions), and right to data confidentiality (5 questions). Each correct answer received a score of one, and each wrong answer scored zero. The total score of the questionnaire ranged between 0 and 29, and scores of 0-9, 10-19, and 20-29 indicated poor, moderate, and good awareness, respectively. Moreover, the score for each domain could be calculated separately: right to access services (0-4), right to informed consent (0-8), right to personal autonomy (0-6), right to be informed of the treatment process (0-6), and right to data confidentiality (0-5). In each domain, the minimum score indicated a lack of

awareness (0%), and the maximum score indicated excellent awareness (100%). According to this, 0-33.4%, 34.4-66.6%, and above 66.6% were considered as poor, moderate, and good awareness, respectively. Considering that the questionnaire was coded as a wrong answer (score 0) and a correct answer (score 1), by converting the raw score (minimum-maximum score) in each domain and the total questionnaire into a percentage score, a range from 0 to 100 was obtained, which served as a criterion for qualitatively categorizing awareness. Moreover, this questionnaire contained three closed-ended questions and one open-ended question to survey the participants' opinions. Closed-ended questions were about the necessity of the students' awareness of the patients' rights chart, adequacy of the students' knowledge of the patients' rights, and the extent to which patients' rights are observed in hospitals where the students did their internship. The open-ended question gathered the participants' recommendations for compensating for the students' information vacuum on patients' rights. Data collection was conducted after obtaining clearance from the University between December 2020 and April 2021. Due to the Covid-19 pandemic and the lack of face-to-face access to subjects, the electronic version of the questionnaire

was utilized for data collection. For this purpose, an e-version of the questionnaire was prepared, containing necessary explanations regarding the title, objectives, and methodology of the study. Subsequently, one liaison from each major was selected to facilitate communication with the students and share the questionnaire link with eligible student groups. Social networks such as WhatsApp and Telegram were used to disseminate the questionnaire link. The first, second, and third authors, along with liaisons from each major, provided the questionnaire link to eligible students. After explaining the methodology and objectives of the study, the participants were asked to complete the questionnaires.

Ethical considerations

The study protocol was approved by the Ethics Committee of Alborz University of Medical Sciences (IR.ABZUMS.REC.1398.229). All ethical considerations were adequately addressed. Participation was voluntary, and returning the completed questionnaires indicated consent to participation. The questionnaires were anonymous, and the data of participants remained confidential.

Statistical analysis

The data were analyzed using descriptive and analytical statistics (binomial test, one-sample t-

test, analysis of variance, Bonferroni test). The SPSS software version 26 was used for data analysis. The level of significance was set at $P \leq 0.05$.

Results

Out of 370 final-year students (research population), 269 completed the questionnaire (response rate=72.7%). The mean age of the participants was 25.96 ± 6.27 years (range: 19-58 years). Of these, 135 were male (50.2%). Regarding the education level, 128 (47.6%) were undergraduate students, 73 (27.1%) were Professional Doctorate students, 37 (13.8%) were associate of science students, 24 (8.9%) were postgraduate students, and 7 (2.6%) were residents. The academic majors of the students, from the highest to the lowest, were nursing (n=59, 21.9%), medical emergencies (n=51, 19%), medicine

(n=49, 18.2%), midwifery (n=21, 7.8%), anesthesiology (n=21, 7.8%), surgical technology (n=21, 7.8%), dentistry (n=20, 7.4%), health (n=16, 5.9%), and pharmacy (n=11, 4.1%).

According to Table 1, over 50% of the students were already aware of the patient's rights charter either before or at the beginning of the internship period. The primary source of knowledge acquisition was university professors. Additionally, more than half of the students reported that the educational material they received contributed to an improvement in their awareness of the patient's rights (Table 1).

Table 1. *Students' prior awareness of patients' rights charter.*

Question	Answer	Frequency (%)
1. Were you aware of the patient's rights charter before or in the beginning of the internship?	Yes	141 (52.4 %)
	No	128 (47.6 %)
2. If yes, what was your source of information?	Professors	87 (32.3 %)
	Books	14 (5.2 %)
	Articles	4 (1.5 %)
	Other	34 (12.6 %)
3. Was the educational content effective in improving your awareness of the patients' rights?	Yes	174 (64.7 %)
	No	95 (35.3 %)

According to Table 2, over 50% of the students had moderate levels of awareness about the patient's rights charter. When examining the charter domains, it became evident that the right to access services had the highest percentage of good awareness (62.1%), while the right to personal autonomy exhibited the lowest percentage of good awareness (9.7%). Moreover, the right to personal autonomy displayed the highest percentage of poor awareness (34.6%), and the right to informed consent showed the lowest percentage of poor awareness (10.4%)

Table 2 also presents the results of a one-sample t-test aimed at comparing the mean total awareness of the patient's rights charter and its domains relative to the moderate level (50%). The mean total awareness of the patient's rights charter was (52.8 ± 15.1), slightly above the moderate level and significantly different from it ($p < 0.05$). Evaluation of the domain averages showed that the highest average was related to the right to access services, followed by the right to data confidentiality; the averages of these two domains were significantly higher than the moderate level ($p < 0.05$) (Table 2).

Table 2. Mean awareness of the patients' rights charter among students and a comparison of the mean with the 50% value.

Variable	Mean \pm * (SD)	Difference	**df	*** t value	P value	Awareness level		
						Poor Frequency (%)	Moderate Frequency (%)	Good Frequency (%)
Right to access services	67.9 \pm (28.3)	17.9	268	10.41	<0.001	41 (15.2 %)	61 (22.7 %)	167 (62.1 %)
Right to data confidentiality	56.9 \pm (23.9)	6.9		4.77	<0.001	37 (13.8 %)	147 (54.6 %)	85 (31.6 %)
Right to informed consent	51.8 \pm (18.4)	1.8		1.56	0.119	28 (10.4 %)	156 (58 %)	85 (31.6 %)
Right to be informed of treatment process	51.7 \pm (24.1)	1.7		1.18	0.239	44 (16.4 %)	107 (39.8 %)	118 (43.8 %)
Right to personal autonomy	39.7 \pm (21.6)	-10.3		-7.80	<0.001	93 (34.6 %)	150 (55.7 %)	26 (9.7 %)
Total awareness	52.8 \pm (15.1)	2.8		3.03	0.003	33 (12.3 %)	188 (69.9 %)	48 (17.8 %)

* SD: standard deviation

** Degrees of freedom

*** one-sample t-test

Table 3 displays the results of the binomial test aimed at comparing the proportion of correct answers with the 50% value. The questions are presented in descending order based on the percentage of correct answers. According to the results, more than 50% of the participants answered correctly to 12 out of 29 questions ($p < 0.05$). The highest awareness levels were related to the right to know the doctor's name (82.9%), the right to be informed of possible risks before giving consent (81%), and patients' information that can be disclosed (79.2%). The lowest level of awareness was related to conditions for leaving the hospital against medical advice without signing the discharge sheet (13.8%), epidemiological follow-up of HIV virus without patient's consent (30.5%), and conditions for the treating or consulting physician's access to the patient's medical record (32.3%) (Table 3).

Table 3. Frequency of correct and wrong answers to patients' rights charter questions and comparison of results with 50% value (organized from highest to lowest percentage).

Question	Correct answer	Wrong answer	*P value
	N (%)	N (%)	
Right to be informed of the physician's name and their specialty	223 (82.9 %)	46 (17.1 %)	<0.001
Necessary conditions before giving consent to medical interventions	218 (81 %)	51 (19 %)	<0.001
Disclosure of patient's medical information	213 (79.2 %)	56 (20.8 %)	<0.001
Conditions for disclosing patient information by health center	210 (78.1 %)	59 (21.9 %)	<0.001
Conditions for admitting a non-Iranian patient	203 (75.5 %)	66 (24.5 %)	<0.001
Necessary measures when services required by an emergency patient are lacking in the hospital	203 (75.5 %)	66 (24.5 %)	<0.001
Right to make decisions after being informed of possible risks of an intervention	201 (74.7 %)	68 (25.3 %)	<0.001
Acquisition of informed consent for live donation	197 (73.2 %)	72 (26.8 %)	<0.001
Conditions for organ harvest for donation from a deceased minor or one under a guardianship	189 (70.3 %)	80 (29.7 %)	<0.001
Extent of providing access to governmental hospital services	163 (60.6 %)	106 (39.4 %)	0.001
Conditions for admitting emergency patients	162 (60.2 %)	107 (39.8 %)	0.001
Condition for disclosing patients' confidential information lawfully in Iran	153 (56.9 %)	116 (43.1 %)	0.028
Right to objection to the hospital bill	148 (55 %)	121 (45 %)	0.113
Right to receiving other physicians' opinions about disease and treatment plan	136 (50.6 %)	133 (49.4 %)	0.903
Conditions for withholding diagnosis or prognosis from patient	125 (46.5 %)	144 (53.5 %)	0.223
Method of informed consent acquisition	124 (46.1 %)	145 (53.9 %)	0.223
Organ harvest from deceased person for educational purposes	116 (43.1 %)	153 (56.9 %)	0.028

Obtaining informed consent for interventions in unconscious patients with emergency conditions	114 (42.4 %)	155 (57.6 %)	0.015
obtaining the husband's consent for wife's treatment interventions	107 (39.8 %)	162 (60.2 %)	0.001
Forced hospitalization	107 (39.8 %)	162 (60.2 %)	0.001
Person in charge of obtaining informed consent from the patients	105 (39 %)	164 (61 %)	0.001
Access to patient's medical record	103 (38.3 %)	166 (61.7 %)	<0.001
Conditions for patients' awareness of all decisions related to their treatment	102 (37.9 %)	167 (62.1 %)	<0.001
Method of informing hospital services tariffs	101 (37.6 %)	168 (62.5 %)	<0.001
Autopsy of deceased person for investigation of suspicious deaths	99 (36.8 %)	170 (63.2 %)	<0.001
Required conditions for obtaining consent from patient	91 (33.8 %)	178 (66.2 %)	<0.001
Conditions for the treating or consulting physician's access to the patient's medical record	87 (32.3 %)	182 (67.7 %)	<0.001
Epidemiological follow-up of HIV virus without patient's consent	82 (30.5 %)	187 (69.5 %)	<0.001
Conditions for leaving hospital against medical advice without signing discharge sheet	37 (13.8 %)	232 (86.2 %)	<0.001

As for the relationship between awareness of patients' rights and demographic factors, only the relationship between awareness and academic major was significant ($p < 0.05$). The results of ANOVA showed that general medicine students had the highest level of awareness (58.7 ± 13.4), followed by students of anesthesiology (55.7 ± 11.6), nursing (55.4 ± 13.1), midwifery (54.4 ± 13.7), medical emergencies (52.2 ± 14.4), pharmacy (51.4 ± 11.5), health (47.8 ± 13.7), dentistry (46.1 ± 18.9), and surgical technology (39.9 ± 19.9). According to the Bonferroni post hoc test, general medicine students had higher awareness levels compared to dentistry, medical emergencies, health, and surgical technology students ($p < 0.05$). Nursing and anesthesiology students had higher awareness levels compared to

dentistry and surgical technology students ($p < 0.05$), and midwifery students had higher awareness levels compared to surgical technology students ($p < 0.05$).

Table 4 presents the students' responses to survey questions and their suggestions to address the information gap on patients' rights. More than 90% of the students emphasized the importance of students' awareness of patients' rights during the internship period. The majority of the students (82.2%) believed that students undergoing the internship were not sufficiently aware of patients' rights. However, over 50% of them stated that patients' rights were observed in their internship hospital. Incorporating the provisions of the patients' rights charter as a course title into medical ethics courses and allocating a separate course

credit to this subject, providing effective high-quality education on the patients' rights charter to students, organizing workshops, seminars, and congresses, and preparing educational brochures

and pamphlets containing excerpts of patients' rights were among the most important suggestions proposed by students to compensate for the information vacuum on patients' rights (Table 4).

Table 4: *Students' answers to survey questions.*

Closed-ended questions		Answer	Frequency (%)
1. Do you think it is necessary for students to be aware of the patient's rights during internship?	Yes	274 (91.8 %)	
	No	22 (8.2 %)	
2. Do you think the students are sufficiently aware of the patient's rights during internship?	Yes	48 (17.8 %)	
	No	221 (82.2 %)	
3. Are the patient's rights observed in the hospital where you are doing your internship?	Yes	142 (52.8 %)	
	No	127 (47.2 %)	
Open-ended questions			Frequency (%)
What are your suggestions for overcoming the students' information vacuum on patients' rights?			
1. Providing effective high-quality education on patient's rights charter to students			19 (21.83 %)
2. Offering the necessary education and training from the first semesters before entering the clinical environment			9 (10.34 %)
3. Practicing the learned material during internship			14 (16.09 %)
4. Holding workshops, seminars, and congresses and preparing educational brochures and pamphlets containing excerpts of patients' rights			18 (68.20 %)
5. Incorporating the provisions of the patient's rights charter as a course title into medical ethics courses and allocating a separate course credit to this subject			20 (22.98 %)
6. Introducing relevant and up-to-date references by professors, and encouraging students to do more independent reading			10 (11.49 %)
7. Receiving feedback from the students and organizing periodic examinations to evaluate the quality of the educational courses			2 (2.29 %)

Discussion

According to the results, the students' overall awareness of the patients' rights charter was slightly above moderate. A literature review indicated moderate awareness of patients' rights charter (12, 13, 18, 20-22). Vakili et al. conducted a review study to evaluate medical students' knowledge of patients' rights and its determinants, finding moderate knowledge in this regard (15). In

a study by Al Anazi et al., about two-thirds of the students and interns were aware of the patients' rights (23). However, Mortazavi et al. found that about half of the students had a poor awareness of the patients' rights charter (11). Similarly, El-Sobkey et al. reported that the medical students had limited knowledge about the patients' rights (17). The results of a study by Ashrafizadeh et al. showed that the students' awareness of the patients'

rights charter was not satisfactory (24). These inconsistencies in the results appear to be attributed to variations in sample size, study time, study groups, and differences in treatment and education environments. However, the crucial aspect lies in the role of universities. Institutionalizing ethical principles in students and enhancing their awareness regarding their future professional life are integral parts of the universities' responsibilities (12).

Comparison of the averages of charter domains revealed that the highest average was related to the right to access services, significantly surpassing the moderate level. This finding aligns with some previous studies (11, 13, 18). However, it contrasts with a study by Ranjbar et al., where the lowest average was found for this domain (19). It appears that, over time, the expansion of information sources, including mass media and social networks, contributed to increased awareness among students in the present study compared to the aforementioned research. This domain encompasses items such as the possibility of non-Iranian patients receiving health care services, conditions for admitting emergency patients, and access to governmental hospital services. Access to health services, especially emergency services, stands out as one of the most crucial aspects of

patients' rights. According to the Constitution of the Islamic Republic of Iran, the government should finance these services from public revenues for all people (25). An effective health system requires active participation and appropriate interaction between healthcare providers and recipients. Medical universities and affiliated health centers should serve as institutions for understanding and respecting the rights and responsibilities of health recipients, their families, physicians, and other healthcare providers. A better understanding of patients' rights, facilitated by appropriate knowledge, is essential (12).

In the present study, the mean awareness of right to personal autonomy was below the moderate level. This domain had the lowest awareness, consistent with the literature (12, 26, 27). This domain covered areas such as forced hospitalization, accepting or declining suggested treatment interventions, and obtaining the husband's consent for the wife's treatment interventions. Patient choice and decision-making should be informed by adequate and comprehensive information. It is necessary to provide enough time to the patient to make a decision or choice after offering the necessary information (8). Medical sciences students without clinical experience may not have a comprehensive understanding of this issue, and

their awareness of the right to personal autonomy is expected to improve gradually upon entering the work environment and gaining clinical experience over time.

The right to data confidentiality covered areas such access to patients' medical records and avoiding disclosure of patients' confidential information. In the present study, about half of the students had adequate awareness about this domain, consistent with the results of a similar study by Samadbeik et al. (13). However, the students' awareness of this domain was below average in a study by Mortazavi et al. In this study, the poor awareness of rehabilitation science students was attributed to factors such as a lack of knowledge about the concept of privacy in rehabilitation treatments, which was related to the absence of effective education on the concepts of privacy and confidentiality in this group of students (11). Confidentiality is a highly emphasized ethical principle. It enhances the patient's trust and improves the effectiveness and efficacy of treatment interventions (26). To respect the patients and their rights, students should learn to be sensitive to keeping patients' information confidential during the treatment process. They should understand that they are not allowed to conduct physical examinations solely for training

purposes without obtaining informed consent from the patient (12).

In the present study, the mean awareness of the right to informed consent and right to be informed of the treatment process was at a moderate level. The right to informed consent covered subdomains such as the responsibility of acquiring informed consent, acquisition of informed consent for live donation, and the necessary conditions for giving consent. In this study, the level of awareness of the right to informed consent was consistent with the results of a study by Mortazavi et al. (11), while it was inconsistent with the results of studies conducted by Samadbeik et al. and Ranjbar et al. (13, 19).

Differences in the research environment and the professors' focus on and sensitivity to a particular domain due to the prevailing clinical and educational situation may be reasons for the inconsistency between the results of the present study and previous studies. However, what is crucial is the professors' emphasis on the necessity and importance of patient's autonomy in educational environments so that students realize its significance in treatment processes and commit themselves to observing it after entering the clinical setting as healthcare providers. Informed consent is a concept based on respect for autonomy, which

entitles individuals to govern their lives according to their own values and preferences.

The right to be informed of the treatment process included areas such as patients' awareness of all decisions related to their treatment, methods of informing hospital services tariffs, and objection to the hospital bill. Patients' awareness of their disease and their adequate attention to the treatment process are necessary measures in treatment (25).

The results of a study by Thema and Sumbane showed that the patients were not aware of their rights and could not give examples of the rights listed in the patients' rights charter. Moreover, about half of the patients claimed that they were not fully aware of their health status or the diagnostic and treatment plans (28).

In the present study, among demographic factors (age, sex, academic major, and education level), a significant correlation was observed only between awareness of the patient's rights charter and academic major, with the highest level of awareness related to medical students compared to other majors like dentistry, medical emergencies, health, and surgical technology. Similarly, medical students had higher awareness levels compared to other clinical majors in studies conducted by Karimyar Jahromi et al. and Torabipour et al. (12, 21). This finding can be attributed to the type and

duration of training, experience, and the longer involvement of medical students with patients (19).

Longer training periods, completing more practical courses, an extended presence in the hospital, and more opportunities for medical students to search and study were other reasons discussed by Karimyar Jahromi et al. (12). While Samadbeik et al. found no relationship between age, sex, and awareness of patients' rights (13), Karimyar Jahromi et al. reported a significant relationship between sex and awareness of the patients' rights charter, with female students having higher awareness levels (12). The results of a study by Vakili et al. showed that men, students above 25 years, students aged 21-22 years, and dentistry and medical emergencies students had the lowest awareness. As for the education level, associate of science students had the lowest and medical residents had the highest awareness of the patients' rights (15). This is while Karimyar Jahromi et al. found no difference in the awareness of patients' rights between different education levels (associate degree, bachelor's degree, and professional doctorate students) (12). Torabipour et al. reported that although sex had no association with patients' rights awareness, bachelor students had the lowest and medical residents had the highest awareness of patients' rights. Advanced age, work experience,

and higher education level may be effective in improving the students and other healthcare providers' attitude towards the observance of the patients' rights (21).

Hanani et al. found a significant association between awareness of the patients' rights and education level in surgical technologists, indicating that an increase in education level and clinical experience improved awareness of the patients' rights and its retention. In other words, a higher education level without physical presence in the clinical setting cannot guarantee awareness retention, and theoretical learnings may be forgotten over time (26).

In the present study, about half of the students stated that they were aware of the patients' rights charter before or at the beginning of the internship period. Moreover, professors were the main source of information on patients' rights, consistent with previous studies (13, 19, 29). Therefore, attention should be paid to the important role of professors as practical role models in improving students' awareness of the patients' rights charter, especially in clinical environments. Jalilvand et al. also emphasized the observance of patients' rights by clinical instructors, hospital authorities, and staff as role models for students, and offering the required training on the mutual rights of patients and

healthcare providers before entering clinical environments by professors (30). According to the results of a study by Azodi et al., in addition to educational courses, the commitment of treatment team members, especially doctors and nurses, to the observance of patients' rights of care, particularly in educational hospitals, improves students' attitudes (31). Al-Khafaji et al. identified several factors contributing to the low level of knowledge among physicians and nurses regarding the patients' rights charter. These factors included a lack of oversight in implementing the charter, a dearth of standardized research to identify its shortcomings, an overwhelming workload hindering charter implementation and patient-focused care, and insufficient access to essential resources such as current articles and books on this topic (29). In this regard, providing effective high-quality education on patients' rights charter for students, holding workshops, seminars, and congresses, preparing educational brochures and pamphlets containing excerpts of patients' rights, incorporating the provisions of the patients' rights charter as a course title into medical ethics courses and allocating a separate course credit to this subject, introducing relevant and up-to-date references by professors, and encouraging students to do more independent reading can be effective in

compensating for the students' information vacuum on patients' rights and improving their awareness level qualitatively and quantitatively.

The students emphasized the importance of offering necessary education and training from the first semesters before entering the clinical environment and then practicing the learned material during internships to institutionalize the importance and necessity of observing patients' rights. Finally, suggestions from students included receiving feedback on the courses and organizing periodic examinations to evaluate the quality of educational programs.

Jalilvand et al. also proposed similar solutions, discussing culture-building for the observance of mutual rights of patients and healthcare providers, decisive confrontation with violations of patients' rights, and passing an examination on the provisions of the patients' rights charter before working in clinical environments as other solutions to overcome students' information vacuum on patients' rights (30). In a review conducted by Vakili et al., the authors suggested various measures to address the issue. These measures include installing a patients' rights charter guide in medical wards, strengthening the executive and management system, overseeing student performance during medical interventions, and

enhancing student awareness of patients' rights through educational courses on professional and medical ethics aimed at acquainting students with their professional responsibilities (15).

Since the present study was conducted in a university in Alborz Province, Iran, its results may not be easily extrapolated to other regions of Iran or other countries. Considering the cultural and social differences of Iran with other countries, similar studies are suggested to be conducted in the universities of other countries.

Conclusions

Considering the moderate level of medical sciences students' awareness of the patient's rights charter, it is necessary to design and implement plans to improve their awareness of patients' rights. The patients' rights charter will be duly implemented only when the awareness of all parties involved in the treatment process has improved, necessary measures have been taken to identify the barriers, solutions for the implementation of the charter have been devised, and observance of patients' rights has been recognized as one of the evaluation indicators of healthcare centers. Further studies, aimed at determining the status quo, identifying the factors contributing to the status quo, and investigating methods of delivering health services

according to the provisions of the patients' rights charter, are required to understand the determinants and barriers to implementing this charter

Acknowledgements

We wish extend our sincere gratitude to all the participants in this study. We would also like to express our appreciation to the Student Research Committee of Alborz University of Medical Sciences for granting approval for this research (research code 3603).

Authors' Contributions

MA was responsible for the study design. MK, MM, and NS were responsible for data collection. MA and MK participated in statistical analysis design. Lastly, all authors contributed to the preparation and critical review of the manuscript, and approved the final version.

Conflict of interest

None to declare

Funding

None declared.

References:

1. United Nations. Universal Declaration of Human Rights; 1948. [cited on 2023]; Available from: <https://www.un.org/en/about-us/universal-declaration-of-human-rights>
2. Utkualp N, Yildiz H. Awareness and attitudes of nurses working in a university hospital on patients' rights. *International Journal of Caring Sciences*. 2016; 9(1): 185-197.
3. Convention for the protection of human rights and dignity of the human being with regard to the application of biology and medicine: convention of human rights and biomedicine. [cited on 2023]; Available from: <http://conventions.coe.int/Treaty/en/Treaties/Html/164.htm>
4. Kupcewicz E, Grochans E, Kaducakova H, Mikla M, Bentkowska A, Kupcewicz A, Andruszkiewicz A, Jozwik M. Personalized Healthcare: The Importance of patients' rights in clinical practice from the perspective of nursing students in Poland, Spain and Slovakia: a cross-sectional study. *Journal of Personalized Medicine*. 2021; 11(3): 191.
5. Gurung S, Sapkota R. Awareness regarding patient rights among hospitalized patients in a hospital of rupandehi. *Journal of Universal College of Medical Sciences*. 2019; 7(1): 51-54.

6. Leenen, H.J.J. Patients' rights. *World Health*. 1996; 49 (5), 4 - 5. [cited on 2023]; Available from: <https://iris.who.int/handle/10665/330516>
7. Melanie H Wilson Silver, Patients' rights in England and the United States of America: the patient's charter and the New Jersey patient bill of rights: a comparison. *Journal of Medical Ethics*.1997; 23: 213-220.
8. Parsapoor A, Bagheri A, Larijani B. Patient's rights charter in Iran. *Acta Med Iran*. 2014; 52(1): 24-28.
9. Parsapoor AR, Salari P, Larijani B. Implementation of patient's rights charter: a report from ministry of health and medical education, Iran. *Iran J Public Health*. 2013; 42 (Suppl.1): 9-12.
10. Aggarwal R, Sethi S, Garg R, Kumar R. Study of awareness of patients' rights among under-graduate medical students. *Journal of Clinical and Diagnostic Research*. 2018; 12(8): JC01-JC04.
11. Mortazavi Z, Hosseini S A, Jafari V, Heshmati B, Mortazavi S S. The survey Awareness of Students in Hamadan School of Rehabilitation about patients' rights charter. *Journal of Medical Education and Development*. 2020; 15(2):141-150. (in Persian)
12. Karimyar Jahromi M, Hojat M, Karami Z. Evaluation students 'awareness of patients' rights in clinical students of Jahrom Medical University. *Iranian Journal of Nursing Research*. 2015; 3(38): 1-10. (in Persian)
13. Samadbeik M, Baraei Z, Rahbar S. Awareness of patients' rights charter among paramedical intern students in Lorestan University of Medical Science. *Journal of Health and Biomedical Informatics*. 2015; 2(2): 106-112. (in Persian)
14. Czajkowska M, Janik A, Zborowska K, Plinta R, Brzek A, Skrzypulec Plinta V. Knowledge and opinions of patients and medical staff about patients' rights. *Nekologia Polska*. 2021;92(7):491-497.
15. Vakili R, Bahreini A, Akhlaghi A, Naseri M. Knowledge of medical students about the charter of patients' rights: a systematic review. *Medical Education Bulletin*. 2022; 3(3): 505-13.
16. Joolae S, Tschudin V, Nikbakht Nasrabadi A, Parsa Yekta Z. Factors affecting patients' rights practice: the lived experiences of Iranian nurses and physicians. *International Nursing Review*. 2008; 55(1); 55–61.

17. El-Sobkey SB, Almoajel AM, Al Muammar MN. Knowledge and attitude of Saudi health professions' students regarding patient's bill of rights. *International journal of health policy and management*. 2014; 3(3):117-122.
18. Vejdani M, Foji S, Babaei Heydarabadi A, Haghighi Sani N, Pourtaleb A, Imanzad M, et al. Clinical training students' awareness from patients' rights in Welfare and Rehabilitation Sciences University, Tehran (2013-14). *Journal of Medical Ethics*. 2016; 9(33): 143-166. (in Persian)
19. Ranjbar M, Sameyeh zargar A, Dehghani A. Students' awareness of patients' right in teaching hospitals of Yazd. *Iranian Journal of Medical Ethics and History*. 2010; 3 (5 and1):51-60. (in Persian)
20. Hosseini-Ghavam-Abad L, Asghari F, Bandehagh A, Najafipour S, Bigdeli S. Patient privacy: awareness and attitudes of Iran University of Medical Sciences medical students. *Medical journal of the Islamic Republic of Iran*. 2019; 33:12.
21. Torabipour A, Malekian H, Bahmani T, Rahsepar Z, Tahmasebi Ghorrabi A. Assessing the awareness of clinical students of patient rights at Ahvaz Jundishapur University of Medical Sciences:2017. *Jundishapur Education Development Journal*. 2020; 11(4): 699-705. (in Persian)
22. Dorafshan H, Jamshidi F, Bijanzadeh M. A study on interns and pre-internship students' level of awareness about the patient's right charter. *Nobel Med*. 2022; 18(2): 99-106.
23. Al Anazi BD, Faraj F, Al Balawi MM, Al Anazi MD. The awareness of patients' bill of rights among medical interns and medical students at Tabuk University. *Open Access Maced J Med Sci*. 2019;7(17):2932-9.
24. Ashrafizadeh, Adineh M, Elahi N, Molavynejad Sh, Najafi S. Evaluation of students' awareness of charter of patients' rights. *Journal of Client Centered Nursing Care*. 2019; 5(4): 269-76.
25. Ranjbar Ezzatabadi M, Baghian N, Dehghani tafti A. Patients' awareness about the patients' rights legislation: a case study in educational hospitals of Yazd city, 2011. *Journal of Community Health*. 2015; 8(4): 10-19. (in Persian)
26. Hanani S, Sadeghi M, Kashaninia Z, Hosseini AF. Knowledge evaluation of surgical technologists about Lawsand standards of patients' rights in the academic-medicina hospitals of Iran University of Medical Sciences in 2016-2017. *Journal of Paramedical Sciences and Military Health*. 2017; 12(3): 47-54. (in Persian)

27. Kiani MA, Maamouri Gh, Noori M, Roudi E, Jarahi L, Kianifar H, et al. Evaluating the awareness of patients' rights based on the charter of patients' rights in medical staff of Mashhad University of Medical Sciences, Mashhad, Iran. *Medical Education Bulletin*. 2021; 2(1): 115-27.
28. Thema AM, Sumbane GO. Patients' awareness of the patients' rights charter in selected hospitals of Limpopo province, South Africa. *IJQHC Communications*. 2022; 1(1): lyab016.
29. Al Khafaji M, Sajit N, Bazmi S, Kiani M. Patient's rights in Iran and Iraq. *International Journal of Medical Toxicology and Forensic Medicine*. 2021; 11(4): 34653.
30. Jalilvand H, Abdi M, Pourrahimi M, Jalilvand A, Tanharo D, Vali N, et al. Knowledge of Nursing and Midwifery Students about Patient Rights. *Iranian Journal of Medical Ethics and History of Medicine*. 2021; 14 (1): 321-332. (in Persian)
31. Azodi F, Mousavinasab M, Davani N, Mirzaei P, Jahanpour F. Attitudes of first and last year medical students about respecting patients' rights in Hospitals of Bushehr University of Medical Sciences; a comparative study. *Iranian Journal of Medical Ethics and History of Medicine*. 2019; 12(1):46-57. (in Persian)