

## The role of narrative medicine program in promoting professional ethics: perceptions of Iranian medical students

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### Abstract

Narrative medicine (NM) is an educational tool that can be used to promote the professional competencies of medical students. This study aimed to investigate Iranian medical students' perceptions of the first NM program offered in 2019.

The study was conducted on 69 medical interns who participated in the weekly NM program that was part of the professional ethics course for two months. We used a questionnaire to determine medical interns' perceptions and personal attitudes toward NM. Three experts confirmed the validity of the questionnaire in Persian, and its reliability was verified by internal consistency ( $\alpha = 0.879$ ). The independent t-test was used to compare the differences in the total scores of students' perceptions. Data analysis was conducted using SPSS 23 software ( $P < 0.05$ ).

The response rate to the questionnaire was 95.65%. The results showed overall students' perceptions of the program were found to be positive. Furthermore, the scores showed a significant difference in terms of gender ( $P = 0.014$ ), but none in terms of marital status ( $P = 0.936$ ).

According to the results, NM was effective in improving students' reflections and their empathy with patients. Therefore, it is recommended to include NM in professional ethics education.

**Keywords:** Narrative medicine; Empathy; Professional ethics.

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## ***Introduction***

One way to enhance understanding and the interactions between patients and doctors or other health-care professionals is interdisciplinary medical education through combining art and literature (1). Many universities have used a narrative approach to teach humanities, with the goal of helping medical students to understand the concerns and illnesses of patients (2). Narrative medicine (NM) makes

it possible to comprehend the relationship between doctors and patients and assists physicians in identifying, analyzing and solving others' difficulties. Moreover, NM can increase trust and understanding while helping doctors to recognize the dilemmas people encounter. Reading, writing and listening to narratives through reflective exercise can develop narrative skill and reflective capacity, which promotes perception and recognition in medicine (3). The importance of NM is strongly emphasized, because its goals are in line with two of the core competencies endorsed by the Accreditation Council for Graduate Medical Education, that is, "professionalism", and "interpersonal and communication skills". Therefore, in order to gain professional competencies, it is necessary to include this approach in the curriculum (4, 5).

Effective communication between physicians and patients, associates and the community will foster empathy and therefore promote more suitable clinical care (3). A review of the literature shows that

empathy can be enhanced through education, and NM is one method to improve reflective capacity and empathy (6, 7). Moreover, NM as an educational intervention can enhance students' narrative competence and help them to make better treatment decisions (2, 8). To investigate the impact of NM on learners' affective domain, the results of a comprehensive study showed that the use of narratives improves communication skills and promotes empathy and medical ethics in students (9, 10). Numerous studies have investigated the effects of the NM program (6, 11-16). For example, in Iran, a narrative medicine program was offered for medical students and it was shown to be effective in promoting reflection and empathy (12). Although the importance of perceptions has been investigated in different cultures (for instance in Western and Chinese medicine), it is necessary to explore other cultures' acceptance for optimal use of the program (3, 17).

So far, no study has examined learners' perceptions of NM in Iran. Due to the novelty of using the narrative approach in this context, this study was conducted to determine Iranian medical students' perceptions of the NM program as a means to promote professional ethics.

## ***Methods***

This was a quantitative and cross-sectional study to assess the NM program offered as an educational intervention in Isfahan University of Medical Sciences in Iran for the first time (12).

The study was performed to identify medical

interns' perceptions of the NM program. The subjects participated in the NM program as part of the professional ethics course. This program was presented in weekly sessions for two months with the purpose of improving communication with patients, reflection and empathy (12). This two-month course was intended to include theory classes for interns in the internal medicine department. We considered the department of internal medicine and the selected medical interns as the target group for the first implementation of the NM program. The research sample included medical interns of the internal medicine department selected during the study period using the census method. Sixty-nine medical interns participated in the NM program and a total of 66 participants completed the questionnaire. Due to the fact that NM was offered as part of the professional ethics training course for medical interns, the internal medicine department was chosen for educational intervention.

Practicing narrative writing and reflection training sessions were conducted in 5 small groups by trained clinical teachers. The focus of these meetings was on writing reflective narratives with the theme of empathy. The clinical teacher and narrative analyst in each small group gave the students feedback on their reflective narratives. This program was first introduced in Isfahan University of Medical Sciences and it was necessary to evaluate the learners' perceptions and reactions to the program. For this purpose, we asked the subjects to

complete the ten-item self-reported questionnaire about their perceptions of NM at the end of the program. This questionnaire was made available to all interns who participated in the program, but its completion was optional.

In order to determine students' perceptions of NM, we used a 10-item questionnaire with 5-point Likert scale responses (completely disagree to completely agree) designed by Chen et al, to examine healthcare providers' perceptions of NM. This tool was developed to examine the two domains of "perceptions" and "personal attitudes" with regard to the program (6). The face and content validity of the questionnaire were confirmed, and its reliability was verified by measuring internal consistency and Cronbach's alpha, which was reported to be 0.934 (3).

In order to use this ten-item questionnaire in our study, in addition to mentioning it in the references, we asked permission from one of the authors of the article too (3). First, we translated the questionnaire into Persian and then had the Persian version translated back into English by an English translator. The two English versions were compared and showed an accurate match. Finally, the Persian version of the questionnaire was confirmed. The face and content validity of the questionnaire were confirmed by three specialists in medical education, and its reliability was verified by measuring internal consistency.

#### *Statistical analysis*

Frequency, percentage, standard deviation

and the mean values of descriptive data were obtained. The reliability of the test tool was measured by internal consistency and through Cronbach's alpha coefficient. The independent t-test was used to compare the differences in the total scores of students' perceptions considering their gender and marital status. Data analysis was conducted using SPSS 23 (IBM, Armonk, NY, USA) and statistical significance was set at  $P < 0.05$ .

### Result

Sixty-six medical interns completed the questionnaire (response rate = 95.65%). The age of the participants ranged from 23 to 28 years ( $24.97 \pm 0.98$ ). Other demographic characteristics are listed in Table 1.

**Table 1- Demographic characteristics of medical interns (n = 66)**

Characteristics		n	Percent (%)
Gender	Male	35	53.0
	Female	31	47.0
Marital status	Single	47	71.2
	Married	19	28.8

Cronbach's alpha coefficient of the questionnaire was measured at 0.879 for the Persian version.

The frequency of medical students' perceptions of the NM program for each item of the questionnaire is reported in Table 2.

The results in the two domains of the questionnaire is presented below.

### Perceptions

Six items in the domain related to participants' perceptions were identified. Reviewing the frequency of students' responses to each questionnaire item showed that almost all participants in this study (98.5%) believed that NM is effective in improving empathy, and many also believed that reflection (97%) and communication skills (89.4%) can be improved through NM.

Although more than 50% of students agreed on the necessity of NM in medical care and its role in reducing stress and anxiety, some other participants doubted its effectiveness.

**Table 2- Medical interns' perceptions of narrative medicine (n = 66)**

Domain	Item	n (%)		
		Completely-disagree and disagree	No idea	Completely-agree and agree
Perceptions	NM* soothes my grief while I am providing medical care.	4 (6.1)	25 (37.9)	37 (56.1)
	NM relieves the pressure while I am offering medical care.	4 (6.1)	11 (16.7)	51 (77.3)
	NM is necessary for medical care.	2 (3.0)	22 (33.3)	42 (63.7)
	NM is useful for physician-patient communication.	1 (1.5)	6 (9.1)	59 (89.4)
	NM is useful for reflection.	0	2 (3.0)	64 (97)
	NM is useful in improving empathy.	0	1 (1.5)	65 (98.5)
Personal Attitudes	I will continue to use narrative writing in my future practice.	6 (9.1)	19 (28.8)	41 (62.1)
	I am interested in NM.	3 (4.5)	16 (24.2)	47 (71.2)
	I will inform my colleagues about the principles of NM.	2 (3.0)	10 (15.2)	54 (81.8)
	Generally, I have a good feeling about NM.	0	5 (7.6)	61 (95.2)

\*NM: Narrative medicine

### Personal Attitudes

Four items in the questionnaire were related to personal attitudes. Many participants (95.2%) stated that they had a good feeling about NM, and a large number (81.8%) stated that they would share the concepts of NM with their colleagues. Furthermore, although a large number of participants (71.2%) stated that they were interested in NM, some (9.1%) mentioned that they would not use this approach in the future and

would not continue the narrative writing.

Also, the overall scores of medical students' perceptions were compared considering their gender and marital status.

The comparison of the scores of students' perceptions of NM showed a significant difference in terms of gender because the mean score of females was higher than male students. However, there was no significant difference in students' perception of NM in terms of marital status (Table 3).

**Table 3- Comparison of students' perceptions of gender and marital status (n = 66)**

Demographic Factors	N (%)	Perceptions				Independent Samples T-Test			
		Mean	Std. Deviation	Minimum	Maximum	t	df	P	
<b>Gender</b>	Male	35 (53.0)	39.46	5.736	27.00	50.00	2.539	64	0.014
	Female	31 (47.0)	42.58	3.973	28.00	50.00			
<b>Marital Status</b>	Single	47 (71.2)	40.96	5.473	27.00	50.00	.081	64	0.936
	Married	19 (28.8)	40.84	4.561	28.00	50.00			

### Discussion

The purpose of this study was to investigate Iranian medical students' perceptions of the NM program. The results of this study showed that in general, medical students had high or medium perceptions of the NM program, and their overall perceptions was found to be positive. Our findings showed that the mean score of female students was higher than male students and that there was a significant difference between the two groups. Therefore, it can be stated that females have a more positive personal attitude to the NM program and show more acceptance. However, there was no significant difference between the mean

scores of single and married students, so it can be stated that marital status was not a determining factor in perceptions of the NM program.

Previous studies have reported NM to be useful in engaging physicians and reflecting on patients' stories and clinical experiences through narrative writing. From the viewpoint of medical students, NM is also an effective tool for explaining cultural differences and enhancing interactions to improve interpersonal communication, collaboration and professional development (3, 4, 18). Moreover, in Arntfield et al, study, medical students reported that narrative is an important means for

improving communication skills, interpersonal collaboration and professionalism (4). In Charon et al, study, learners stated that they enjoyed narrative writing and found it a useful experience in the clinical field (19). In Winkel study residents reported that reading, writing and sharing their experiences with their peers promoted reflection (14). In addition, NM workshops have been shown to help decrease burnout among residents of obstetrics and gynecology (20).

Chen et al, study showed that most participants had a positive view of the NM program in medical practice (6). Also, the highest percentage of disagreement pertained to "NM relieves the pressure while I am offering medical care", and the highest percentage of agreement to "NM is useful for reflection" (6).

In our study, the highest percentage of disagreement was expressed in relation to the sentence "I will continue to use narrative writing in my future practice", followed by the impact of NM on medical care. Also, most students agreed on the usefulness of NM in promoting empathy and reflection, and in the next rank, they stated that they had a good feeling about the program. Our study is consistent with Chen et al. study (6) in terms of participants' perceptions about the effectiveness of NM in promoting empathy and reflection. The rate of agreement on the other items of the questionnaire also conforms to Chen et al study, and while the agreement percentages are different, they are basically within the same range. Based on our findings, some

medical students were unwilling to practice narrative writing in the future. This may be because they had only recently been familiarized with narrative writing, or it could be due to the priority of treatment over education in our clinical education system. Hence, the gradual introduction of a new approach such as NM can be helpful in changing the educational system.

A lot of the experiences expressed by students as narratives come from informal interactions and the hidden curriculum in medical school and improve their understanding of professionalism (21). Wesley et al. investigated the experiences of internal medicine residents about NM sessions and extracted three themes: mindfulness, physician well-being, and professionalism. In general, residents had a good overall understanding of NM and satisfactory participation in the program (5). Huang et al. compared the participation of two groups of medical students in the NM course; students in the first group were studying Western medicine, and those in the second group were studying Chinese medicine. Students' perceptions of NM as an approach to learning empathy and professionalism were examined, and the results showed that cultural differences were effective in accepting NM, in that the students studying traditional Chinese medicine showed better acceptance of NM. However, gender was not shown to affect the students' acceptance of NM in either group. In this study, three factors were extracted from the questionnaire: personal attitude, self-development/reflection, and emotional benefit, and the advantages of

NM training were found to be improvement of "reflection, empathy and interpersonal relationships". With regard to acceptance of NM, the difference between the Chinese and Western cultures is that in Chinese medicine the emphasis is on the emotional characteristics of communicating with the patient, while in Western medicine the focus is mainly on evidence. Also, in Chinese medicine clinical teachers are role models who focus on patient-centered care and paying attention to patients' emotions, and this has played an important role in the acceptance of NM by students. Therefore, clinical teachers have a formative influence in the Chinese curriculum and can be mentioned as an example of the effect of different learning cultures on the understanding and acceptance of NM (3).

Studies show that 50% of medical students in Western societies are women and make up the largest workforce, but in Eastern societies such as Taiwan, women comprise a small percentage of physicians. Additionally, results from previous studies showed that women behaved more appropriately and were more involved in providing health-care services. Although these findings have yet to be verified in other Eastern countries as well, gender may also be influenced by culture (3). Similarly, the results of a study showed that there is a greater willingness to do teamwork and help others among female medical students in Tunisia (3, 22). However, Huang et al did not report a significant difference in the acceptance of NM among male and female students, but rather identified cultural

influences as the dominant factor (3). There are various ethnicities and cultures in Iran, but we did not examine those issues in the present study, although we found a significant difference between male and female students' perceptions. It seems that repeating this program and examining learners' perceptions in other target groups may help to discover other influential factors in this regard.

In Columbia University, Miller et al investigated what medical students learned in the NM curriculum as well as a framework for professional development (18). Students' educational experiences were presented in focus groups and then analyzed. NM was taught to medical students with the aim of improving "reflection, curiosity, perspective taking, ethical awareness, tolerance of uncertainty, and empathy". The students expressed "attention, representation and affiliation" as a valuable process to develop professional identity. They also stated that NM is useful in promoting critical thinking and improving reflective capacity, and described narrative writing as a pleasant experience (18). In our study, although the students had a positive perception and attitude about the NM program, there were still doubts and disagreements regarding the acceptance of NM as an effective tool in clinical care and one with the potential to reduce stress in physicians. It seems that some students' reluctance to write narratives or their hesitation to choose the narrative approach in future activities is due to various factors that need to be investigated in future qualitative studies. It should be added that in

order to optimally implement the narrative medicine program, a framework has been developed that departments in other medical universities can also use to implement this training approach (23).

The educational level of students and their preferences in academic needs can be effective factors in their perceptions of the NM program. Therefore, medical students' perceptions of the program may be different at other educational levels and in other departments. Therefore, among the limitations of this study were small sample size and the geographical limitation. Qualitative studies in the future can help to improve the effectiveness of the program in different cultures for more purposeful and accurate implementation.

Our study was conducted only on medical interns, and since this survey was the first implementation of NM and students' perceptions were very dependent on how the program was managed, the results may be different in subsequent surveys. On the other hand, innovative programs sometimes receive negative feedback due to individual's resistance to change, which may have been the case in the present study. Nevertheless, these results can be considered as a general guide to identify students' perceptions of the NM program in Iran.

### ***Conclusion***

Considering the students' perceptions of the reported outcomes of NM on improving reflection and empathy with patients, it is recommended that this program be included as part of the professional ethics training

course and in the formal medical curriculum. On the other hand, cultural differences are not restricted to Eastern and Western cultures, but can be found among the various ethnic groups in Iran, for instance in Kurdish or Turkish communities. Thus, further studies may be required to investigate the cultural acceptance of NM among Iranians from different ethnic backgrounds. However, this did not seem to have a significant effect on our study because most of the medical interns were of Persian ethnicity. Also, other related curricula could use NM as an effective teaching method in humanities depending on the intended educational purpose. In addition, investigating the outcomes of the program on health-care services and clinical performance seems to be useful.

### ***Ethical considerations***

This research was part of a project conducted under the ethics code IR.MUI.RESEARCH.REC.1399.530 in Isfahan University of Medical Sciences, Iran. Informed consent was received from the subjects prior to participation in the study.

### ***Conflicts of Interests***

No potential conflict of interests was reported with regard to this article.

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