Value-rich exposures in medical education: phenomenology of practice according to the lived experiences of medical students in Iran

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Abstract

Values predispose people to make the right and especially ethical decisions, and are important for good performance in medical sciences. Students’ lived experiences and the value-rich exposures during their education are some effective means of achieving professional values that help them build their own value frameworks. In this phenomenology of practice study, we aimed to explore and describe the lived experiences of a sample of medical students in Shahid Beheshti University of Medical Sciences regarding their value-rich exposures. In-depth interviews, students’ written stories, recorded video interviews related to past trips and photographs were used to collect data. The data was analyzed based on Van Manen’s thematic analysis method. Five themes emerged from the data: “in the shadow of a supportive mentor”, “a well-orchestrated, value-rich program”, “human interactions in a value system”, “acquiring values in a real-life environment”, “and seeking values in oneself”. Our study identified different dimensions of value-rich exposure based on the lived experiences of medical students and pointed out some issues that medical education planners can consider to improve the quality of value-based education for medical students.

Keywords: Medical students; Medical ethics; Medical education; Value-rich exposure; Phenomenology of practice.
Introduction

Working in the medical profession is a kind of moral enterprise due to its effects on human lives (1). Ethics should therefore be taught as a part of the core identity of the profession, and medical ethics education must prioritize the transmission of professional values. Teleologically, values in medical professionalism are derived from the concept of the unitary good of the patient, which is the aim of all medical sciences (2).

Values are defined as normative guidelines that help us resolve conflicts and challenges and choose the right course of action, and they are effective in the clinical decision-making and judgment process (3, 4). Integrity, compassion, altruistic beneficence, equality, justice, security, truth, and working in partnership with members of the wider healthcare team are examples of values that should be conveyed through medical education (2, 5).

Neglecting values creates barriers to the physician-patient relationship, which disrupts the overall process of ethical decision-making. Therefore, it is essential for physicians and medical students to learn about values, their roles and meanings (4, 6). Thus, medical students should be empowered via medical ethics education programs to balance their individual values with the values of patients and the society. Teaching of values must be at the forefront of medical education (5). It is noteworthy that value education is beyond the osmotic transfer of ethical considerations and principles from teachers to students in the traditional education model (7). The methods of teaching values should aim at the internalization of professional values in students. Therefore, such teaching reflects humanistic and value-conscious medical practice (2).

Recent research in the field of medical ethics education suggests that it is imperative to integrate the values into the medical education curriculum (1, 8). Students’ lived experiences during their education are effective resources for achieving professional values that help them build their own value framework (4). In fact, real situations and exposure to value-rich experiences in the course of one’s education are unique opportunities that can have a tremendous impact on transfer of values. Students’ first experiences of caring for a sick or dying person, their visits to an elderly care center, their first attendance in an operating room or intensive care unit, and many other experiences can be considered as value-rich exposures (9).

Value-Rich Exposure Programs

A self-reflective program is an effective way to deliver ethics education as it helps students perceive themselves better and make decisions based on their own beliefs and values (10).

In this regard we had a unique experience in Shahid Beheshti University of Medical Sciences in Iran. We designed a value-rich exposure program as an elective, extracurricular activity for medical students. This type of project has been implemented
for over a decade and students participating in these programs are involved in various activities during their academic period frequently. The students learned scientific contents along with value-based concepts in workshops, training sessions tailored to different topics in different environments, and field trips to various cultural sites. In addition, an average of two journeys were designed annually to provide students with the opportunity to experience more value-laden environments along with the experience of group life. Case study discussion, interaction with people in the community, site visits, critical analysis and self-reflective journals were the predominant educational methods used in this program.

Such programs expose medical students to many value-based concepts that are essential for a physician, such as sincerity, team morale, empathy, creativity, critical thinking, kindness, commitment, accountability, justice, freedom and security. These programs are entitled "Mohajer" and are a unique example of using value-rich exposure to transfer values. They were approved as a selected educational process in Shahid Motahhari’s Educational Festival (2012), which is held by the Ministry of Health and Medical Education of Iran annually.

This study examined the experiences of students who were members of the “Mohajer Group” to achieve the concept of value-rich exposure in medical education. Since qualitative methods are suitable for obtaining complex details of emotions, behaviors, lived experiences, and in general for perceiving what people think and do (11), this study used a phenomenological approach.

**Methods**

Our study was a phenomenology of practice, which was conducted from June 2019 to July 2020 using the hermeneutic phenomenological approach. According to Van Manen, phenomenology is fundamentally practical, and its ultimate goal is “to nurture a measure of thoughtfulness and tact in the practice of our professions and in everyday life” (12 - 14). He called this pragmatic concern "phenomenology of practice" (13). We tried to reveal the nature of the phenomenon of value-rich exposure in the form of a deep and rich phenomenological text by implementing Van Manen’s six-step approach (15, 16) and using pathic methods and deep reflection on students' lived experiences.

**Participants & Setting**

Participants were students who were members of the Mohajer Group and had the most involvement in its programs from 2010 to 2020.

**Data Collection**

The present study employed the following methods to collect data:

- **In-depth interviews**: Semi-structured
Interviews were used that began with open-ended questions, so that the participants could easily express their experiences. Examples of these questions include: “Would you please tell us about the experiences you had in the Mohajer Group?”, “What was your Mohajer experience like?”, “What values did your exposures transfer to you?”. Then, follow-up questions were asked to clarify the concept under consideration. In addition, the interviewer probed participant responses by using questions or statements like “Please explain more”, “What did you think then?” or “Can you give an example, so that I can better understand the meaning of this?”. Seven interviews were conducted with six participants, and each interview lasted between 50 and 75 minutes. The recorded interviews were transcribed verbatim within 24 hours.

**Students’ written stories:** Four writings that contained rich information from students’ memoirs were selected for review.

**Recorded videos of Mohajer students immediately after the trips:** 285 minutes of recorded interviews related to the trips in 2010 - 2014 and 2018 were analyzed.

**Mohajer photographs:** According to Van Manen, one of the sources of data collection in phenomenological studies is artistic sources such as photographs (16). In this study, nine images with deep concepts of value-rich exposure were included.

Sampling continued until data saturation.

**Data Analysis**

The data analyses were conducted based on Van Manen’s thematic analysis method in the following steps: isolating thematic statements, composing linguistic transformations, and gleaning thematic descriptions (16). We used a combination of holistic, selective and detailed approaches to isolate thematic statements. In-depth interviews, recorded interviews and students’ writings were analyzed using holistic and detailed approaches, and photographs were analyzed by selective approach. In the next step, the extracted thematic statements were changed to phenomenological language, and finally five main themes were extracted. According to Van Manen’s view on participatory analysis of the themes (15, 16), several meetings were held with members of the research group until a final agreement was reached over the extracted themes. As the last step, the themes were expressed in the form of meaningful and artistic statements that described the specific aspects of the phenomenon in question in a pathic way. MAXQDA software was used to facilitate data management and analysis.

**Trustworthiness**

The criteria presented by Guba and Lincoln (17) were considered to maintain the validity of the study. To enhance the credibility, the researchers used an interview guide based on previous studies and the experiences of the research team. Attempts were also made to select students with different experiences who had participated in various programs of the Mohajer Group. In addition, students’ written stories, photographs and recorded video interviews were used. To maintain
dependability, the researchers explained in detail all the steps of data analysis and the emergence of themes. To observe confirmability, two researchers analyzed the interviews independently, then compared the results of the analyses and reached a final agreement. Furthermore, peer and member checking were used. For transferability, the conditions and characteristics of the context and participants were described in full detail to allow their comparisons and applications in other conditions.

**Result**

The final analysis yielded 5 themes and 17 subthemes (Table 1)

| Themes                                      | Subthemes                                                                 |
|---------------------------------------------|---------------------------------------------------------------------------|
| In the shadow of a supportive mentor        | Companionship of mentor and students                                       |
|                                             | Life mentor                                                                |
|                                             | Determined wise instructor                                                 |
| A well-orchestrated, value-rich program     | Dynamic, value-based curriculum                                            |
|                                             | Unique learning methods                                                    |
|                                             | Confluence of science and value outside of traditional classrooms          |
|                                             | Program’s desiderata                                                       |
|                                             | Value preloading                                                           |
| Human interactions in a value system        | Collective exploration                                                     |
|                                             | Team learning                                                              |
|                                             | Communication with people committed to values                               |
| Acquiring values in a real-life environment | Real exposures as a launching pad to achieve values                       |
|                                             | The magic of real experiences in a value-laden environment                  |
|                                             | Gradual exposures to achieve a deep perception of values                   |
| Seeking values in oneself                  | Migration from oneself in pursuit of values                                 |
|                                             | Practice of moral values                                                   |
|                                             | Covenant guarding                                                          |

**In the shadow of a supportive mentor**

Mentoring students to achieve the expected outcomes in confrontation with different value-laden situations is very important. Based on the experiences of Mohajer students, their movement toward acquiring values was supported by their mentor and his/her wisdom. Participants described their mentor as a partner whose particular views, trust in students and empathy facilitated extraction of value-based concepts from students’ experiences. Note a comment as below:

"The teacher cared about each of the students and assigned everyone a task based on the knowledge he had about them. He was always and everywhere beside us, and encouraged the students at all times". [Participant No. 3]

Teachers were real role models for Mohajer students in different situations and their concern over students’ learning from every experience made them mentors for all aspects of life. As indicated by a participant:
"One of the reasons I became a member of the Mohajer Group was Dr. F., because students’ education was very important for him. He taught me things that are not found in any book. I want to be like him." [Participant No. 1]

A student also wrote:

"Dr. F. has a distinct aim; everything is in the direction of reaching that specified goal, from fundamental ideas to the arrangement of the journey process. Familiarity with such thinking is valuable for me. [Student’s Written Story No. 2]

A well-orchestrated, value-rich program

As participants reviewed their experiences, they mentioned points that were actually various sections of a systematic and purposeful curriculum and each served as a value-laden movement² of a larger symphony. The dynamism and purposefulness of the designed program and its impact on inducing values, types of exposure and teaching methods have led to deep learning. As declared by one of the students:

"We had a lot of different programs, from mystical to completely scientific ones that were carefully planned". [Participant No. 6]

The appeal of using different learning methods was clearly expressed in the different parts of the participants' statements. "The students in the corner of the vaccination room (our classroom!) typed and recorded details of each injection and uploaded them on the Mohajer website. How different is this from memorization of book pages!" [Student’s Written Story No. 1].

Statements, photographs and written stories of Mohajer students showed that attending non-traditional academic classrooms full of desiderata that encourage learning caused better involvement in activities and a deeper perception of the topics under consideration. The students were also able to perceive many value-rich concepts by attending such climates outside the university campus. Note the participants’ quote below:

"When we travelled to the desert, we went out at night. Dr. F. asked a teacher to tell us about the Milky Way. The stars were closer to us in the desert. A lot of medical students don’t have such experiences, but I did, and it was miles away from the curriculum of medical education. I could feel the power and greatness of God." [Participant No. 1]

“We had a theme for each of our programs. ‘In search of self’ was the theme for a journey to the South. At first, we did not quite understand it, but little by little, we thought more about it during our exposures. For example, the philosophical discussions we had with Ms. A., or the book of Shahid Motahhari or the stories of Rumi that we read together were like pieces of a puzzle that were put together. We could find some other pieces while visiting cultural and national museums, or in interactions with local families. Then we started to discuss what was really meant by “in search of self”, and in the group we put the pieces of the puzzle together and came to an understanding.” [from a student’s recorded interview after traveling to the South in  

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² A movement is a self-contained part of a musical composition or musical form.
Figure 1 is an example of Mohajer photos that shows the intimate and informal learning climate in one of the programs.

**Figure 1- One of the informal classes of the Mohajer Group**

From the perspectives of the students, the pre-preparation done by the teacher before each specific encounter led to a better and deeper perception of different value-rich exposures when students were actually experiencing them. Therefore, they were more motivated to experience that particular subject. In this respect Participant No. 6 said while smiling:

"The teacher talked about his last trip and the experiences he had with his students, and showed us some photos and videos. He used promotional teasers related to the trip and asked us to send him our opinions about the trip. Actually, the teaser made us excited and curious."

**Human interactions in a value system**

Exposure to phenomena in the context of a group was a feature that made value-rich exposure effective in the students' experience. The specific identity, characteristics and performances of individuals in such a group were manifested in the students' lived world as a system that is influenced by the interactions of individuals with each other. Mohajer students mentioned that they first looked at each exposure as a problem that had to be solved collectively. Questioning, group discussion, and formation of small groups to analyze exposures were tactics always used by students. Note a part of Student’s Written Story No. 2:

"After each short clip, the students’ opinions are asked, from the most delicate details, such as the apprehensive smile of a mother or the ethical concept that comes to mind with a poem of Rumi, to the most general and formal cases and the educational process. Actually, we were learning from each other during brainstorming."

Students mentioned that the experience of being in the Mohajer Group with their friends was very enjoyable and made them understand some values better as they interacted with each other. As one participant said:

"We all know that patience is very important in dealing with a sick person, but I realized the true depth of this concept with the Mohajer Group, when I saw patience in M.’s behaviors. I now realize that I have not been patient! M. is patient, because she behaved that way."

Students achieved a collective and lasting identity, which kept them in the group and
accelerated interactions for learning from their exposures; this was referred to as the Mohajer identity. Students considered belonging to the Mohajer Group and gaining the Mohajer identity as a value that affected their behaviors. As stated by participant No. 6:

"I feel that I am part of a community that is going to do something, and this affects the decisions I make, the things I do, and how I behave."

Interactions with people who are committed to values are another part of the value-rich exposure process. Students mentioned this as a value-laden exposure that facilitated the transfer and perception of values.

“We visited Mrs. T., who was truly sincere and honest... the level of her sincerity was unbelievable. I realized how sincere and honest some people are and I think these characteristics are very important in a physician” [from a student’s recorded interview after traveling to the South in 2012].

**Acquiring values in a real-life environment**

This theme highlights the importance of students' presence in real-life situations and submerging in value-rich exposures. Based on this dimension of the phenomenon under study, real exposures are like a launching pad for acquiring values and receiving their true effects in real life, which have an important impact on the students' deep learning. As participant No. 6 stated:

"Learning in a certain environment made that subject stick to our mind. It is like geo tag on my cell phone. Learning in specific environments also tags that climate on the content and triggers long-lasting learning.”

Figure 2 is another example that shows the group’s interaction in a real environment.

**Figure 2- A picture showing the groups interaction**

Another student wrote:

"I can hear, see, and touch an event in a direct exposure. Then the words and the values engraved in my mind find their places and meanings."

According to the results of this study, exposures designed to transfer values have been like a thousand-piece puzzle. Students gradually find the different pieces and finally come up with value-rich concepts. As participant No. 3 said:

"It is as if the teacher plots a puzzle, and I put the pieces together, so that I can see the image better. Then, I can realize that there is something beyond this simple trip. I can get something more from previous experiences and move toward future horizons. It is important to know what I have in my hands to take the next steps."

**Seeking values in oneself**
Mohajer students believed that their value-rich exposures, in addition to their external experiences revived their inner values, so they should strive to preserve them. Seeking values in oneself indicates that the student migrates to himself/herself while exposed to different value-rich concepts and practicing moral values. The students’ achievements lead them to make a covenant with themselves and their friends to protect their inner values. Therefore, this is how they find the main source of all values and go in search of themselves. Note two participants’ comments:

“All the elements, the cases, and the exposures were like removing the dust from my true self, the dust that has collected on that purity, and has been there since the Descent.”

"It was the Mohajer Group that made me think about my core values. The conditions were provided for me to think about those values. I could love myself more, think about myself and human values more, and in short, I started to search for every valuable thing I knew."

The students participating in this study believed that following their exposures, they acquired values that were so beautiful and precious to them, so that they made a covenant to keep this valuable investment. As one student said after the 2011 trip to the South:

"On the last day of our trip, we promised not to trample on this beautiful feeling, and to be responsible for what we had learned. Something great had happened and we could not allow it to fade away. We have to continue our journey, but in other forms and ways, so that we can keep that good feeling."

Discussion

Our study mainly aimed to explain the concept of “value-rich exposure” in medical ethics education based on the lived experiences of medical students, which was manifested in the obtained themes. According to our findings, learning in the shadow of a supportive mentor, a well-orchestrated, value-rich program, human interactions in a value system, acquiring values in a real-life environment, and seeking values within oneself are dimensions of a value-rich exposure program.

One of the most important dimensions of value-rich exposure is a supportive mentor. Various studies show that the mentor, as a role model and provider of learning opportunities, plays an important role in students’ learning (18 - 20). In fact, the mentor guides and supports students on the path of excellence. Role modeling is the most effective technique for developing professionalism (18), and therefore medical ethics education depends on perfect role models who articulate values in their behaviors and demonstrate enthusiasm and good practice (2).

“Human interactions in a value system” were a major theme of this study. Like the solar system that contains planets whose weights affect each other, and the behavior of each planet alongside the others has led to one of the most beautiful creations in the
universe, the *Mohajer* Group is also a value system that is formed by the interactions of group members. From the participants' viewpoints, what helped them to better perceive the value-rich exposures was the experience they obtained with their peers, as well as the use of group discussion and reflective analysis. Close peers, as the strongest aspect of any curriculum, can enhance students’ perception of professionalism (21). In addition, the use of small groups is an effective way to reinforce values in medical students and leads to the transfer of basic values of the medical profession such as compassion and respect (22). Students' interactions with people who are committed to values can convey those values to them. In fact, interactions with people provide opportunities for students to practice cooperation, trust and empathy, and lead to normative adjustment of students (20). In this regard, Godbold and Lees stated that students must recognize the role and importance of the values of people who are working together and giving services (10), which can be achieved through group interactions.

“A well-orchestrated, value-rich program” was another theme that emerged from the data. Movement is like a complete part of a larger piece of music that has a beginning and an end. In the present study, the different parts of the program experienced by the students were like movements that together represented a well-orchestrated, value-rich program. Curriculum is an interactive process that includes ideas, values, people and material resources that occur in a particular context (23). In this study the participants experienced value-rich exposures following a dynamic curriculum, which included a combination of scientific and value-based topics in different environments and times presented by using student-centered methods. The subthemes "unique learning methods" and the "program’s desiderata" are in line with the items referred to in the Association for Medical Education in Europe (AMEE) Guideline No. 23 as curriculum desiderata that play an important role in students’ education (23). Another important issue was the role of climate, which is the spirit of the university environment. A truly successful learning experience requires climate planning and preparation. The mentor should check the climate in advance and plan the activities. He/she should also provide students with brief information about that particular climate and specify the expected activities (24, 25). These concepts emerged in the subtheme of value preloading.

The fourth theme was “acquiring values in a real-life environment”. The learning environment is a behavioral stimulus, and must be dynamic and in line with educational goals. The educational environment should be an external manifestation of the curriculum and help make it operational (23). Students in our study believed that each real environment that was used for a specific exposure facilitated their perceptions of the values. Studies have shown that the educational environment has an effect on achieving educational goals, happiness, motivation, learning and success (20, 24). Another subtheme revealed in this study was
“gradual exposures to achieve a deep perception of values”. This is an important issue in dealing with value-based concepts, and the mentor should systematically select the cases and gradually provide them to the students to reach the core topic. The most complex issue should be raised at the end and should be proportionate to the students’ previous knowledge and educational level. This method leads to discussion and exchange of views among students at a higher cognitive level and thus a better perception of the topic under consideration (26).

The theme “seeking values in oneself” refers to the fact that after a value-rich exposure, the student becomes sensitive and seeks values within himself/herself through a self-reflective process. Human nature is full of value-rich qualities, but these may gradually fade in the material world. Achieving inner values requires effort, practice and protection. The first step is to draw one's attention to inner values, and the best stimulus to achieve them is real value-rich exposures. The basic principle of value-based education is that the personal value system serves as a solid foundation for a practitioner in a sound decision-making process. Therefore, teaching values should begin with students' awareness and perception of their value systems (4). Students can better understand their own values and beliefs through self-reflective methods that help them to make more appropriate decisions (10).

The Mohajer Group has been a successful experience in Shahid Beheshti University of Medical Sciences. The researchers were convinced of the success of this program in medical ethics education and aimed to introduce the method as “value-rich exposure”. Therefore, it is necessary to conduct further studies in other cultures to develop knowledge related to this phenomenon and generalize the results.

Conclusion

Teachers, peers, clinical experiences, different exposures during patient care and personal values are the main factors contributing to the development of professional values in medical students. This study provides in-depth insight into what medical students experience following value-rich exposures and points out some issues that can be considered by medical education planners to improve the quality of ethics education for medical students. These findings can guide medical ethics curricula and enhance elective opportunities for medical students to experience values in authentic situations through active and reflective learning.

Our study identified different dimensions of value-rich exposure based on the lived experiences of the medical students who participated in our single institution, 10-year longitudinal program (Mohajer) using a grassroots effort to improve medical ethics education.

Ethical Considerations

The ethics committee of Shahid Beheshti University of Medical Sciences approved
study under code of ethics No. IR.SBMU.SME.REC.1398.047.

Conflicts of Interests

The authors declare no conflict of interests.

Acknowledgements

We are grateful to all Mohajer students who shared their valuable experiences.

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