

Development and Establishment of Professional Identity during Academic Education; a Qualitative Study on the Lived Experiences of Pharmacy Students

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Abstract. Some educationally important themes like Professional performance, academic motivation, etc. could be explained in relation to "professional identity". Nevertheless, 'identity' is somewhat vague but could be described based on special considerations related to the context, major, personal and environmental characteristics. This study aims to explore how pharmacy students contribute to the formation and development of their professional identity. 12 pharmacy students were interviewed by purposeful sampling. The data were analyzed using conventional content analysis methodology. Five main categories were extracted to explain how pharmacy students' professional identity develop and establish from the beginning to graduation: 1) Basic (primary) establishments in the path of choosing the field of study, 2) Intra- and extra-professional conflicts in the way of stabilizing the primary professional identity, 3) Becoming empowered in the chosen future professional path, 4) The consolidation of professional identity structures by heartening yourself and relying on your own abilities and, 5) The dynamics of students' satisfaction with studying pharmacy. The central category, "To Search for and acquire yourself; flourishing in the path of your chosen professional destiny," could describe the data and establish relationship between the main categories. Academic educators could pave the way for every student according to his/her specific goals, personal abilities and limitations. Nevertheless, Availability of general academic advising from the first stages of education could help development of professional growth and excellence. Defining and then strengthening the hidden and overt roles of professors could facilitate this process properly and promptly.

Keywords: Pharmacy students, Professional identity, Qualitative research, Academic motivation, Academic identity.

INTRODUCTION

As an individual's ongoing awareness of being separate and distinct from others, professional identity is a "professional self-perception" based on attitudes, beliefs, feelings, values, motivations, and experiences (Rosenthal *et al.*, 2011; Yailagh *et al.*, 2014); or it is defined as the

process by which every pharmacist establishes his/her professional identity as a pharmacist (Rosenthal *et al.*, 2011; Sheaffer *et al.*, 2008). From the beginning of education, professional identity is a dynamic process. Throughout the individual's career, it will be influenced by factors like gender, career, previous work experience,

understanding of team working, knowledge of the profession, and cognitive flexibility (Adams *et al.*, 2006; Noble *et al.*, 2019). These factors include the culture of the professional workplace, professionals' perception of their work (profession), professional experiences, interprofessional interactions and corporations, and the contradictions between the reality of the field of pharmacy and the attitudes and ideas that students have towards being a pharmacist (Wilson *et al.*, 2013; Yailagh *et al.*, 2014). All might affect the motivation of candidates of the career choice, their academic motivation, college dropout, or their persistence in the profession (Noble *et al.*, 2019; Wilson *et al.*, 2013). Investigating different contexts and the identification of the particular working factors and elements could be helpful in the educational management of the process of formation and development of professional identity.

Numerous studies have been conducted in different countries and have measured the motivation of individuals in different fields to continue their studies. According to these studies, motivation plays a vital role in developing students' professional identities (Gallagher *et al.*, 2014; Samreen *et al.*, 2020). Studies show that students' motivation at the beginning of entering different fields of medical sciences is different and is mainly influenced by family and high school conditions (Sajjad *et al.*, 2021; Sharif & Sharif, 2014). Moreover, studies show a significant relationship between motivation and professionalism because the factors that lead to increased academic motivation can lead to higher cognitive abilities and greater empowerment at different ages (Canrinus *et al.*, 2012; Smitina, 2010). Motivation can affect the process of identity formation (Canrinus *et al.*, 2012), and it could be of much importance in the field of pharmacy since integrating the primary and clinical sciences to discover new drugs and improve drug delivery and therapy processes is arduous and overwhelming (Mostafavi *et al.*, 2013; Sajjad *et al.*, 2021).

In Iran, the pharmacy field has attracted candidates for higher education. Usually, their entrance exam score determines the winners of this competition without carefully considering candidates' natural interests in the field. Most students consider this field to have an acceptable social status, a broad range of career options, and a decent gain. That is why, as studies indicate, they might not be motivated to get high grades during education, attend classes regularly, or put importance on the lessons. Since there are few types of research considering cultural and specific conditions of the educational and social contexts, the use of qualitative methods can be useful to investigate the process of professional identity.

For this reason, the study aimed to explore pharmacy students' attitudes toward and living experiences of their profession. In this way, our main research questions were "how do pharmacy students contribute to the formation and development of their professional identity?" And

"which elements and factors are working in this matter?"

Materials and Methods

The present study was conducted using qualitative methodologies to provide an exploratory approach to participants' lived experiences (Hasan *et al.*, 2018; Mylrea *et al.*, 2019; Thomson *et al.*, 2018). This descriptive study was performed through semi-structured interviews with open-ended questions. Pharmacy students' experiences and understandings of the research subject were more explored through probing questions for providing more details through instances and explanations. Overall, 12 interviews with the mean duration of 73 minutes (Min: 45 and Max: 127 minutes) were performed at Shiraz University of Medical Sciences (SUMS) in Shiraz Faculty of Pharmacy and three educational Pharmacies (Nemazee Hospital, Shahid Motahhari and Imam Reza Clinics) affiliated to SUMS. After S.A. (general pharmacy student) was trained by O.A. regarding in-depth interview techniques, two pilot interviews were performed one after another and reviewed in face-to-face meetings with the aim of learning and improving S.A.'s interviewing skills. After ensuring S.A.'s ability and general competency to conduct interviews, the main interviews were conducted one by one. In order to prevent bias during the research process, we tried to bracket our opinions, attitudes, and thoughts around the subject of the study before starting the interviews.

We selected the first three participants based on our personal acquaintance with them. Other students were recruited then through the introduction by the first interviewees (snowball sampling). Besides the gender diversity, we selected pharmacy students from the first (3 students), middle (4 students), and the last (5 students) years of their education. The time and places of interviews were determined with the agreement of the interviewees. Interviews were usually done individually and confidentially. For doing the interviews, firstly, the researchers explained the title and purpose of the study (by phone or personal introduction), and upon request, the main questions of the interview were brought up with desired informants, and if they agreed to cooperate, a face-to-face interview was arranged. In total, two of the introduced ones did not agree to participate in the research for personal reasons. No interviews were needed to be repeated. Before starting the interviews, an interview guide was established based on the following aims:

- 1) Internal and external conflicts in the way of consolidation of the initial professional identity.
- 2) Exploring effective factors and elements; i.e., influential persons or situations or the extent to which other important persons, contemplations, situations, or circumstances were perceived as encouraging or challenging.

- 3) Becoming empowered; how students (under the influence of what factors) reach a determined decision about their future career or position.

Interviews started with a general and open question about pharmacy as their major and that how they feel about it. Then through more detailed questions and according to the content of the interviews, they were asked to describe their perceptions, observations, experiences, and views according to the research purposes. They were also asked to explain their satisfaction with the field and the factors that they thought have been influential in this way. We also tried to understand how pharmacy students have experienced their major from the beginning towards graduation, how they might define themselves in relation to their field of study, and in general how they became involved in their professional identity.

All interviews were audio recorded and verbatim. In addition, some brief field notes were made by the researcher mostly to follow the points of the interview and to make sure the researcher has not missed anything. The data were analyzed using a simple content analysis methodology. Firstly, primary codes and then primary, secondary, and the main categories emerged. At the end, the central category emerged so that it could relate to and explain the main categories in a general overview. The verbatim interviews were read at least twice for gaining a general view and then codified into codes and categories using the MAXQDA 2007 software (VER BI GmbH, Berlin, Germany). New interviews were planned based on the need for the saturation of the data within codes and categories. No new code and category emerged based on the last two interviews. Subsequent interviews were arranged and conducted based on the analysis process. Data collection continued until no new primary code or category was obtained. Totally, 268 primary codes emerged. Only some parts of the three primary transcripts were returned to participants to ensure the correctness of the primary coding; moreover, primary codes and categories assigned firstly by S.A. were reviewed and confirmed by O.A. during the coding process. To establish the trustworthiness of the research, we used member checking, debriefing (auditing) with supervisors, constant comparative analysis, and long involvement with the data (around 7 months).

Consent

To follow ethical guidelines, we explained the objectives orally and in writing, scheduled the interview, and obtained informed consent; voluntary participation and confidentiality were emphasized.

Results

The central, secondary, and primary categories extracted from the data have been shown in [Figure 1](#).

Main Categories

Intra and extra-professional conflicts in the way of stabilizing the primary professional identity

Achieving a professional career identity is influenced by factors that counteract and reinforce the student's satisfaction with the field of study, which sometimes affects the student's performance to achieve his/her goals. How to handle these factors results from the student's internal and external conflicts over these factors.

Factors countering students' satisfaction with the field of study

Professional & Social copings

Participants described socially stemmed events that might decrease their motivation for pharmacy or their performance as professional pharmacists. Based on the data, among the factors affecting the interviewees' motivation, especially in the higher semesters, were "lack of laboratory equipment" to complete the thesis and "inappropriate behaviour of some visitors in the pharmacy". They believed that sometimes these problems are caused by "people's lack of knowledge about the pharmacist's duties in society and pharmacy". They believed that the "lack of proper information" regarding the pharmacist's duties in the past years has damaged both the professional and social image of the pharmacist and reduced the pharmacists' motivation to serve clients. [#Participant 10] *"Look, information about pharmaceuticals is very little, to the extent that they don't know that we are pharmacists! That means they don't respect us as doctors, so I think we have to foster a culture first. In fact, numerous people do not know what our duties are in the pharmacy to expect us accordingly. Many of the rows that take place in the pharmacy are rooted in this lack of knowledge"*. Also, the interviewees acknowledged that because of the "self-interest" of a limited number of pharmacists to collect more wealth and as a result of "overcharging" and "hoarding", the pharmacist's face is not as it should be within the community. Maybe it is not paid attention to enough in the heart of society, and this issue has reduced participants' satisfaction with the pharmacy field.

Countering elements during education

The level of students' motivation changes during their education by facing various issues. Professors were one of the most important influential factors (either positively or negatively) in students' motivation. Moreover, the interviewees mentioned "confusion and a sense of emptiness" despite holding counselling sessions and educational conferences in the first semesters. [#Participant 9] *"In the first semester, many students are*

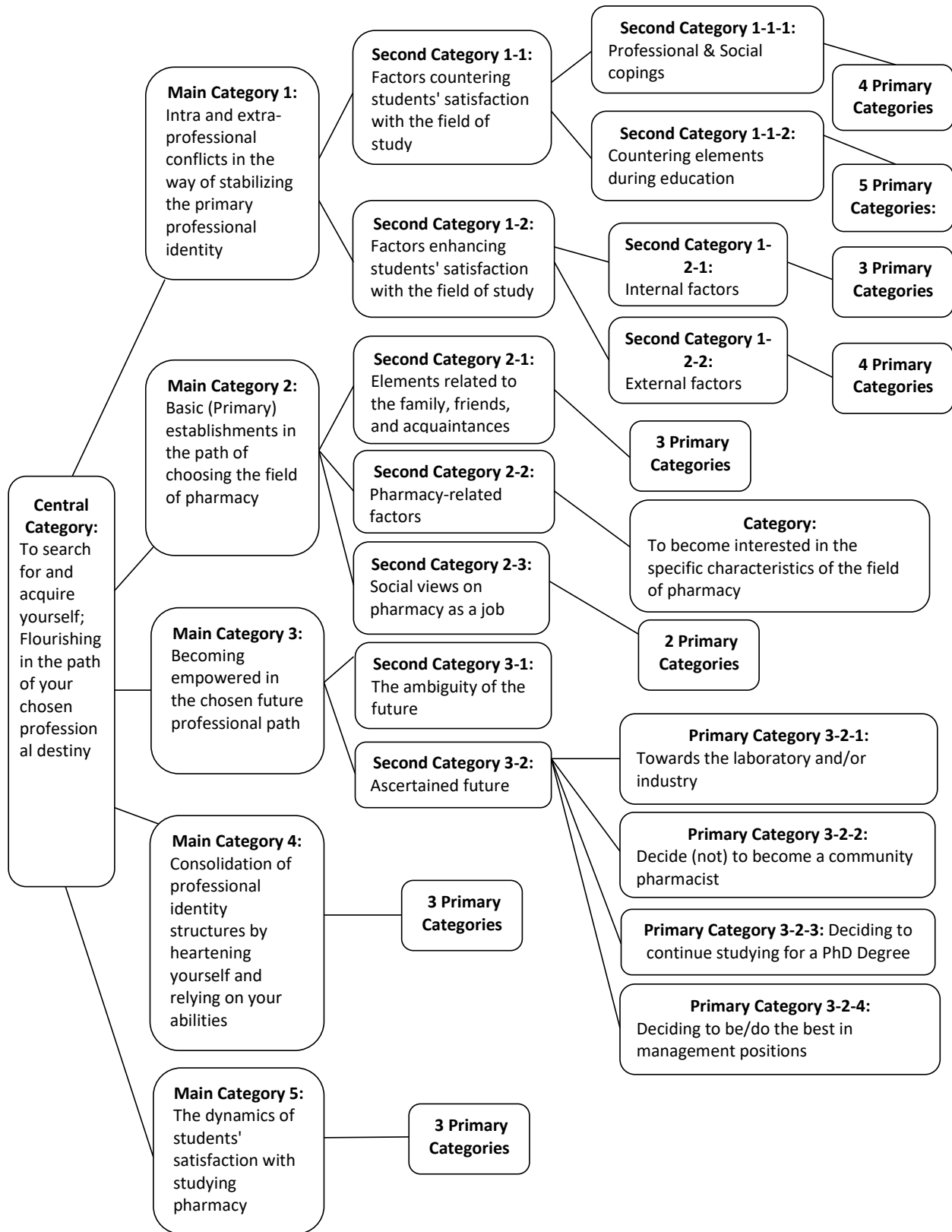


Figure 1. Primary, secondary, and central categories that were extracted from the collected data, explaining influential elements in the development and establishment of pharmacy students' professional identity.

confused since they focused more on the entrance exam (Concour) than on what they were interested in. They are now confused and don't know what to do". Students of the last semester complained about the high number of some course units such as "chemistry units" or "inappropriate timing of the presentation of some courses" during their studies. [#Participant 10] "A factor that positively affected me was the X company internships, which changed my view of the industry. If such internship had occurred earlier, I believe we would have had a better view [knowledge] toward the industry from the beginning".

Factors enhancing students' satisfaction with the field of study

Internal Factors

During the interview, the students always recalled moments when, despite difficulties, they did not quit and continued on the way that they had selected. One of the factors that helped them along the way was "setting goals" and "recognizing the challenges of the path and discovering its solutions". These people owe their success to their efforts and self-awareness.

They believed that professional identity is achieved when they are self-reliant and independent to continue toward the selected goals. [#Participant 7] "I had a series of goals for myself, and I conquered them step by step. Of course, God helped me a lot. After choosing pharmacy, I set a goal for myself step by step. The work you start must be unique if someone wants to become a great person".

External Factors

Getting students to the desired level of satisfaction with pharmacy can sometimes be accomplished by providing them with guidance, especially from a professor. In addition, one of the factors that helped the interviewees in this way was "positive influence from other pharmacists; and pharmacy and medical heroes and pioneers". They often remembered a professor's advice about difficulties on the path and observed the progress of motivated people inspiring them. [#Participant 6] "The Biotech[nology] professors were outstanding. They made me interested in pharmacy. I remember I was awful at that time in most of the lessons. But one day, a professor from this group came. He helped me a lot, you know. He roused me up, and I became interested in this field". [#Participant 8] "There's so much to complain about! My mind says if senior students can make it to the university's academic staff, why can't I?"

Basic (Primary) establishments in the path of choosing the field of pharmacy

Family Factors

Some students discussed restrictions that their family had placed on them. According to the interviewees, their family had two essential roles: 1) supporting the student's independence in the academic path according to his/her interest and providing other support such as financial aid during education. [#Participant 1] "I had a number of the best of luck in my life. One of them was my family, who are very supportive. Their support is incredible, both before and after marriage, and the reason why I got to this position was obvious to us then." By contrast, creating restrictions on the choice of field, choosing the city where he/she studies, or the impossibility of financial support. [#Participant 8] "My family did not let me choose pharmacy at the University of Tehran. They told me not to go away from home, and I did so."

Individual Factors

One of the reasons why each student chose pharmacy was a "unique feature of the field of pharmacy" that distinguished pharmacy from other fields from his/her viewpoint. [#Participant 2] "Well, I loved pharmacy very much. I was very interested in working in the laboratory, and I have been talented in this work since I was a child. So, pharmacy was close to my childhood mentality, so I chose it."

Social Factors

Some interviewees stated that the pharmacy field remains unknown to people around them, and they had to make a lot of effort to defend themselves after being accepted in this field, in addition to not so interesting social status of the pharmacy as a major or field of activity. However, the interviewees also did not have a correct and complete mentality toward pharmacy and their future careers. [#Participant 4] "I didn't feel excellent. The reason was that no one knew yet whether pharmacy was a bachelor's degree or a doctor of pharmacy! I was also tired of explaining to everyone that fact; to say, I will be eventually given a doctor of pharmacy degree".

At the same time, students did not have a complete mindset about pharmacy and its career opportunities when choosing the major. Some of the interviewees considered the scope of pharmacist activity to be more limited: [#Participant 3] "I saw it was constrained, meaning that before university I thought it was all about the pharmacist and you should always be in the pharmacy, and that's it, I did not think you could go to work in a company or make medicine in laboratories. Now I see it is much more complete, I think."

Becoming empowered in the chosen future professional path

Students' views on their future careers at different stages of education are of particular importance. Students

delineated a future for themselves according to their information about a pharmacist's work options. Consequently, they always try to develop confidence through learning, experimenting, searching, and asking questions to empower themselves. Achieving this certainty does not have a specific time, and students reach this goal at different times.

Uncertain Future

Some students, especially in the last semesters, still could not imagine a clear and bright future for themselves. The reason for that was usually dissatisfaction with the country's administrative, economic, and managerial conditions. [#Participant 12] *"I do not see any future! As long as this education system is in this country, we will not achieve anything! I think this situation does not benefit us! [or cause] Peace of mind"*.

Ascertained Future

Some students saw their future work in laboratories and pharmaceutical companies. According to them, money is the second priority, and a pharmacist should make every endeavor to help his/her fellow citizens. They thought that since pharmaceutical companies, especially in Iran, have an urgent need for professional and skilled pharmacists, we can hope that by expanding this way of thinking, the country's pharmaceutical problems are mostly to be solved. [#Participant 11] *"My ultimate goal is to graduate as soon as possible and go to work in labs. I heard that the field of [Pharma]Ceutics is very relevant for making medications and this kind of activity, but I'm sure I will not go to a pharmacy store. I want to go to X Company and work there"*.

The interviewees believed that many pharmacy graduates would work in community pharmacies. They are considered the most important reason to achieve financial independence while having a dignified career, which will bring overwhelming satisfaction to the graduates. They believed that the high income of the pharmacy and the unfavorable economic situation have seriously placed students in the dilemma of continuing their studies or establishing a pharmacy store. In the meantime, some interviewees were also against the establishment of a pharmacy and considered working in a pharmacy to be the cause of "lowering the social status of pharmacists in society". These persons often plan to continue their education abroad or in the country. [#Participant 10] *"If I want something here [in Iran] and I can't find it, I will go abroad, learn, and come back. I will only do it if I have to. Otherwise, I would prefer to continue my studies here"*.

Consolidation of professional identity structures by heartening yourself and relying on your abilities

By choosing the professional path and setting general goals, there remain some weak or indefinite points that

students try to compensate for or prevent from by counting on their abilities and traits. Therefore, they would try to deal with or face the defects and problems to convince themselves to continue on the path. They make some promises to themselves to solve the problem or tolerate it to get a suitable position in the future to approach it. [#Participant 9] *"Pharmacists don't have the same respect as before, ... because they will do anything to make money! This means that they do not respect themselves; therefore, the rest of people will not respect us, and they would look at us like a drug dealer"*.

The dynamics of students' satisfaction with studying pharmacy

The state of satisfaction with education played a vital role in the performance of students and the way they were served. Based on the data, satisfaction changes during education. Academic satisfaction is stabilized to a large extent after establishing a professional identity, but it still increases and decreases because of various factors.

[#Participant 1] *"I gradually realized I made the right choice. I indeed chose pharmacy ineluctably [because of my National university entrance exam (concur) rank'], but now I am delighted. The situation progressed in a way that when the pharmacy internship began, I felt more comfortable"*.

The main category: To Search for and acquire yourself; Flourishing in the path of your chosen professional destiny

In forming their professional identity, pharmacy students face many challenges. Some positive or negative factors begin to work from before the college entrance and continue throughout the pharmacy education to reach a student at a state of balance and acceptable satisfaction with his/her professional identity. Students' views on their professional future change until they reach a primary establishment in their professional identity.

Professors, other pharmacists, pioneers, social status of pharmacy as a major or career, the economic and political situations, and some individual characteristics like self-awareness of their strengths and weaknesses and having a sense of independence are essential in paving the way. Except for a group of students who are wandering until the last semesters and have not been able to find their professional path, others have gradually found themselves and are trying to establish their professional identity. Choosing the future career path is determined by how pharmacy students approach and find themselves in the profession. Firstly, the initial foundations and then a set of internal (personal) and external intervening factors (positive or negative) work to shape a primary structure for their professional identity. In line with the selected goals and towards realizing dreams, hopes, and desires, students then try to strengthen their structures by doing

what they think is right. In the meantime, the more precise and focused the student's mentality is toward his/her professional future path, the more satisfied he/she will be with his/her field of study in general and with his/her efforts on the way. Essentially, from the first stages, pharmacy students try to inquire about a desired professional identity until they find it (formation) and then flourishing into its path (development).

Discussion

The main contribution of the study is how professional identity is formed and developed as a process by pharmacy students from the early stages of entering the field until graduation. Through semi-structured interviews, we tried to investigate the process of identity formation and the influential elements, including contextual, intervening, and reinforcing ones. Generally, the data show that a student may need lots of effort to find and accept his/her desired professional identity; therefore, this process may take time until graduation. But it is only then that their thoughts, efforts, and activities become practically meaningful in line with their selected professional role and identity. In this way, the dynamic process of academic satisfaction and identity formation is also accomplished.

According to the studies, one of the most important influencing factors in having a field of study is internal and inviolable motivation, which is a motivation developed within an individual with society's assistance (Hastings *et al.*, 2001; King, 2013). The students talked about the obstacles or barriers that made their motivation toward the field of pharmacy weaker than before; their indeterminacy, especially in the early semesters, or factors rooted in the lack of educational facilities were typical examples. But along with the negative factors, there were strengthening elements as well that helped students during education; personally, "setting goals", "recognizing the challenges of the path," and "discovering solutions for them" were among the main ones pointed out often. According to our study and other studies, if students have internal and unwavering motivation, they can overcome the indeterminacy they might suffer and vex them during education (Jafari, 2018; King, 2013).

As mentioned, the family and people around the person can play the role from before choosing a field of study until graduation. In forming a professional identity, the family can support, guide, or control the student and his/her choices and desires, even respecting the field of study, the place, and the type of university. Also, in other studies, family-related factors have been demonstrated to have a top level of influence on the mentality and efficiency of students in their future careers and education (Molero Jurado *et al.*, 2019; Shao *et al.*, 2020), changing their major, or progressing (Shao *et al.*, 2020). Consequently, it is suggested that families have the opportunity to attend and benefit from purposive educational counselling sessions, particularly before their child enters the

university and/or during the first semesters of higher education. This can be deemed as a means of increasing awareness and enhancing or improving their attitude about academic education, its challenges, and also the needed relevant skills.

The ambiguity of the future for some interviewees, mainly because of the government's unfavourable economic and political situations, was annoying and considered an important obstacle in accomplishing their professional identity. Nevertheless, the future was clear and bright for others, even from the beginning. According to the data, the latter group was more able to balance intervening impacts and giving meaning to their professional identity, which made them hopeful about what they should do or could do to reach their professional goals. The data show that students who were able to define an individual professional identity for themselves could either ignore problems or continue with them as realities or try to pave the way towards their desired goals by avoiding them.

In our study, satisfaction was greatly influenced by hope for the future. Studies show that most Saudi and American students are satisfied with studying pharmacy because of their hope for and having a bright future, and if they go back, they will choose their major again (Samreen *et al.*, 2020 Oct 26; Wilkening, 2017). However, some Iranian studies showed that as the age of the student's increases, their level of satisfaction with the field of pharmacy decreases significantly (Adib-Hajbaghery *et al.*, 2017; Moezzi *et al.*, 2021). Nevertheless, our study results suggest that pharmacy students' attitudes toward the field change over time dynamically, and they are influenced by positive and negative elements. Still, overall, these changes do not lower their satisfaction with studying pharmacy.

The data of this study were collected in the conditions of the corona pandemic, and its unfavourable resulting changes in educational processes and people's general income level that could have led to the creation of conditional bias in the research. Although this research was conducted with the participation of 12 pharmacy students, it can also be useful to collect the opinions of families and pharmacy graduates. The data of this research can help the quality management of pharmacy education according to the factors, elements, and conditions affecting students' professional identity in positive or negative ways.

Conclusions

According to the data, professional identity as a dynamic process starts from a point (usually before entering the field of study), then continues to form and develop during education under the influence of lots of positive and negative factors (including personal, social, professional, etc.) and eventually it reaches the equilibrium state of a primary establishment. As time is vital in accomplishing the process, academic educators could pave the way for every

student according to their specific goals, personal abilities, etc. by providing academic advice from the first stages of their education. Defining and then strengthening the hidden (as role models) and overt roles of professors could facilitate this process in a proper and timely manner. Helping students find themselves right within the profession could shorten the achievement of stability in the structures of their professional identity, which could improve their professional performance, academic motivation, and educational efficiency.

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Competing Interests

The authors have no competing or conflicting interests with regards to this paper.

Ethical approval

This study was approved by the ethics committee of Shiraz University of Medical Sciences with the ethics code of IR.SUMS.MED.REC.1401.229. Informed consent and emphasis upon confidentiality were regarded as the main ethical considerations of the study during data collection and analyzing.

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