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Career Preferences, Leadership Attitudes, and Research Interests among Pharmacy students of Lahore, Pakistan

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ABSTRACT

The present study is aimed to evaluate student's perception about career choices, research interests and leadership attitudes towards pharmacy profession and factors involved in the selection. A cross-sectional survey was conducted at seven different schools of pharmacy in Lahore, Pakistan. The questionnaire used in this study was designed from previous studies conducted in different countries. A total of 720 questionnaires were distributed among the fourth and final year pharmacy students, out of which 562 were returned with the response rate of 78.0%. Majority of the students (30.1%) considered Clinical pharmacist as the best career option and 18.1% students believed that personal interest was the prime reason for the selection of their profession. A large proportion of students (75.6%) believed that leader should take charge of the organization. The participants of the age of 22-23 years were strongly agreed that leader is responsible for controlling the whole group or organization than other age groups (56.0%, $p < 0.05$). Female respondents were in higher agreement that they were interested in a research study than male respondents (66.5% vs. 33.5%, $p = 0.028$). The participants wanted to serve their career as a clinical pharmacist upon graduation. Different leadership establishment programs should be conducted to develop hierarchical and leadership skills among students.

INTRODUCTION

At the end of 20th century, the responsibility of a pharmacist was to compound and dispense the drugs (Savage *et al.*, 2009). Lack of awareness, poor framework and unavailability of opportunities for the development of pharmacy profession are the major causes of pharmacist's shortage in the community settings (Khan *et al.*, 2017). Over the past few years, there have been remarkable transformations in the pharmacy field, a profession of the highest integrity and competence. Pharmacy practice has come up with the new developmental approaches, tools and job prospects (Hasan *et al.*, 2010). Nowadays pharmacists are responsible for relieving the undue stresses on the health care system. The patient-oriented services have been provided, so that pharmacist can communicate with the patients to counsel them about the medication use (Sa *et al.*, 2010). Due to ebullient nature of pharmacy profession, with more patients centered care and disease management to alleviate the suffering of the patients, pharmacy profession attracts numerous students. With advancement in health care system, pharmacists are now playing a leading role in rendering wide ranges of health care services (Wilson *et al.*, 2012). The role of the pharmacist is well documented in the world health organization. Pharmacists are playing a pivotal role in conducting vital researches in the field of pharmacy profession which is central to modernizing professional practices (Kritikos *et al.*, 2015).

The scope of pharmacy professional is getting better with every passing day affecting student preferences and instilling more inquisitiveness among students to acquire knowledge and academic excellence. The pharmacy profession is considered to be the third largest profession in health care system (Knapp and Cultice, 2007). Knowledge about the future career helps students to achieve their desired objectives in deciding career choices. So, students should know about the subspecialties of a

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pharmacy profession. The pharmacy profession is customizing its services on modern grounds in rendering up to the minute therapy management services in diverse disease patterns, such as hypertension, diabetes, and pain (White *et al.*, 2012). In this profession, every pharmacist should have leadership traits so that he/she can solve the patient-related problems and accept healthcare challenges (Hassali *et al.*, 2016). The career preferences have been explored in different countries of the world. A study from the United States reported that after graduation, pharmacy students chose two different areas of pharmacy practices that is retail and clinical practice (Saad *et al.*, 2012). A study from Malaysia reported that in private universities, upon graduation the students are more interested in community pharmacy practice services, while in public universities they are more interested in hospital pharmacy services. The job environment, remuneration and fringe benefits were the most important elements in choosing career goals (Ubaka *et al.*, 2013). In Pakistan, pharmacy students' knowledge about the career preferences, leadership and their attitude towards pharmacy profession are not known. So, this study was planned to evaluate career preferences, leadership attitudes and research interests among Pharmacy students of Lahore, Pakistan.

METHODOLOGY

Study design and sampling method

The questionnaire-based transversal study was performed at different pharmacy schools of Lahore, Pakistan. These schools are recognized by Pharmacy Council of Pakistan that approved the pharmacy course and recommended certain equipment and facilities to be made available to the students for the purpose of registration as a pharmacist (Khan, 2015). There are ten recognized pharmacy schools in Lahore out of which three are government institutes and remaining are private institutes. All pharmacy schools were invited to participate in the questionnaire-based survey. Out of ten schools, seven schools participated in the survey. Pharmacy Students of fourth and fifth professional years were chosen for this study. This research was approved by the Human Research Ethics Committee of University College of Pharmacy, University of the Punjab, Pakistan with reference number HEC/PUCP/1957A. Seven hundred and twenty Pharm D (Doctor of pharmacy) students of fourth and final professional years studying in pharmacy schools of Lahore were enrolled in the study. One of our team members provided the detailed information about the research study to students and later questionnaires were distributed to participants and re-collected after a specified time. Out of seven hundred and twenty questionnaires, five hundred sixty-two were returned with the response rate of 78.0%. The sample size was calculated by using census approach in which we used the entire population as the sample. A census is attractive for small populations and it eliminates sampling error and provides data on all the individuals in the population. Convenience sampling method was used to collect the data from pharmacy students in Lahore.

Study tools

The questionnaire used in this study was designed from the previous research studies approaching the same questions that were conducted in different countries. Statements of Hierarchical thinking and systematic thinking were originally designed by Malaysian University, questions referred to Research Practice by University of Sydney, Australia and the statements related to Awareness of Pharmacy scope by University of Peshawar, Pakistan (Hassali *et al.*, 2016; Kritikos *et al.*, 2015; Salman *et al.*, 2013). Face validity of the questionnaire was done by a researcher expert in qualitative research. Cronbach's Alpha test was applied to check the reliability of questionnaire (0.869). Questions were asked by the authors to find out the attitudes and beliefs about leadership. The leadership attitude and beliefs scale (LABS) was designed to explore the student's attitude and beliefs about leadership towards the hierarchical thinking and systemic thinking (Wielkiewicz, 2000). Attitudes towards pharmacy profession were evaluated by five-point Likert-Scale ranging from strongly agree to strongly disagree. It consisted of 54 items in which 9 items explored reason of choosing pharmacy, 2 items were related to awareness, 28 items were regarded as the leadership and hierarchical attitude and beliefs, 14 were system approach based questions, 7 were related to subjects of interest and 7 were referred to research knowledge. A 65 items-questionnaire was finalized and a pilot study was performed to check the validity of these questions. The data of the pilot study was not utilized in the final analysis of this study.

Statistical analysis

After completion of data collection, the data were encoded in ordinal and nominal variables. Data were analyzed by using statistical package for social science (SPSS) version 21.0 for Windows. Descriptive statistics were used to demonstrate the outcomes in the form of frequencies and percentages. The Chi-square test was used to analyze the significant association between the independent variables (demographics features) and dependent variables (awareness of pharmacy scope and attitudes about the leadership). Statistically, level of significance was set with the p-value less than 0.05.

RESULTS

Basic characteristics of participants

Demographic characteristics of the total sample are presented in Table 1. Among five hundred sixty-two respondents, the majority were the females (N=404, 71.9%). Majority of the respondents were day scholars (N = 342, 60.9%) with 20-23 years of age (N = 293, 52.1%). About 96.3% respondents belonged to Punjab following annual system (N = 367, 65.3%).

Career preferences and factor affecting these preferences

The career intentions and influencing factors are summarized in Table 2. Majority of the respondents chose Clinical pharmacist as best the career option (N = 169, 30.1%) followed by hospital pharmacist (N = 82, 14.6%) and drug inspector (N = 58, 10.3%). Factors that are involved in the selection of this profession were personal interest (N = 102, 18.1%), and anticipated income (N = 56, 10.0%) (Table 2).

Reasons for choosing pharmacy career

Table 3 shows the knowledge and attitude of the students of the fourth year and final year of Pharm-D regarding the awareness of the scope of pharmacy. Almost, 255 (45.4%)

participants strongly agreed that pharmacy education and practice played a vital role in health care system. The participants following annual system education were more interested in the health and medicines than those who were in a semester system (64.6% vs. 35.4%, p = 0.004). Of the total, 326 participants preferred to work in the government sector, while 236 participants were interested in the private sector. Majority of the female participants (59.9%) with age of 20-21 (42.9%) joined pharmacy as a gateway to medicine/dentistry (p < 0.05). More than half of the participants (61.0%) intended to pursue a postgraduate research degree but no significant associations were observed with respect to their age, gender and education system (p = 0.232, 0.195 and 0.137 respectively). Female respondents were in higher agreement that they were interested in a research study than male respondents (66.5% vs. 33.5%, p = 0.028) (Table 3).

Table 1: Demographic Characteristics.

Characteristics	Frequency N	Percentage %
Age		
20-21	192	34.2
22-23	293	52.1
24-25	77	13.7
Gender		
Male	158	28.1
Female	404	71.9
Ethnicity		
Punjab	541	96.3
Sindh	7	1.2
Baloch	5	0.9
KPK	4	0.7
Iranian	5	0.9
Year of study		
Fourth	320	56.9
Final	242	43.1
Education system		
Annual	367	65.3
Semester	195	34.7
Type of scholar		
Day	342	60.9
Hostel	220	39.1
Household income		
<20K	47	8.4
>20K	515	91.6
Area of hometown		
Rural	80	14.2
Urban	482	85.8

Leadership attitudes and beliefs of pharmacy students

Responses of pharmacy students towards leadership attitude and beliefs regarding pharmacy profession are shown in Tables 4 and 5, respectively. The knowledge about the hierarchical and systemic leadership was significantly higher in female participants than their male counterparts (p < 0.05). Based on these findings, the majority of the respondents strongly agreed (34.0%) and agreed (47.0%) that leader must be in control of the organization. The participants of the age of 22-23 years were strongly agreed that leader is responsible for controlling the whole group or organization than other age groups (56.0%, p = 0.022). About 75.6% students believed that leader should take charge of the organization and about 81.6% of the respondents stated that all the participants of the organization should be involved in the leadership process.

Table 2: Preferred Career Choices and Factors affecting Career Preferences.

Characteristics	Frequency N	Percentage %
Career intention		
Community pharmacist	55	9.8
Clinical pharmacist	169	30.1
Hospital pharmacist	82	14.6
Production	36	6.4
Quality control	33	5.9
Research	24	4.3
Overseas	26	4.6
Drug inspector	58	10.3
Forensic scientist	19	3.4
Teaching	32	5.7
Marketing	23	4.1
No intention to pursue pharmacy	5	0.9
Influencing factors		
Family influence	102	18.1
Anticipated income	56	10.0
Personal interest	350	62.3
Reputation	27	4.8
Senior guidance	27	4.8

A significant association was observed for female respondents regarding a response that individual need to take initiatives to help their organization to accomplish its goals (75.6% vs. 24.4%, p = 0.019) (Table 5). Day scholars showed more positive response towards the leadership aspects that should encourage innovations over the response of hostility (60.4% vs. 39.6%, p < 0.05). Furthermore, the perspectives of the day scholars about the decision taken by the leaders of the whole organization were also significant (p = 0.031). Participants selected options, strongly agreed (27.4%) and agreed (50.4%) that leadership activities should foster future discussion but these results showed insignificant association with respect to age, gender, scholar, and education system. Participants with respect to the age group of 22-23 years (56.1%) suggested that members should be trustworthy to the appointed leaders of the organization or group (p = 0.004) (Table 5).

DISCUSSION

The pharmacy profession is considered to be one of the most active services in Pakistan. The study findings showed that majority of students in the annual system of education were aware of the scope of pharmacy. A large proportion of female candidates considered the pharmacy as a gateway to medicines. In earlier findings, career preferences may be adjusted in accordance with teaching styles, tasks, projects and how the lecture room is

assembled (Novak *et al.*, 2006). Furthermore, the accessibility of positions in a workplace to gain experience is probably to have a greater impact on career preferences (Kirby-Smith *et al.*, 2008). It is significant to interpret the various aspects that influence the selection of a career in a particular field. Moreover, the knowledge of the female respondents about the research was significantly higher than male respondents. Implementation of pharmacy curriculum which focuses on research and capabilities needed in research may change the attitude of pharmacy students towards research (Maharajan *et al.*, 2017). Personal interest was the important aspect involved in the selection of their profession.

Table 3: Statements on Reasons of choosing a pharmacy.

Statement	Candidate's Response					p-value				
	SA* N (%)	A* N (%)	N* N (%)	D* N (%)	SD* N (%)	Age	Gender	Scholar	Income	Education System
Interested in health and sciences	311(55.3)	196(34.9)	44(7.8)	8(1.4)	3(0.5)	0.085	0.43	0.330	0.703	**0.004**
Felt that health related disciplines are good professions?	255(45.4)	234(41.6)	59(10.5)	12(2.1)	2(0.4)	**0.005**	0.13	0.172	0.673	**0.006**
Felt that pharmacy has good job prospect?	153(27.2)	180(32.0)	165(29.4)	51(9.1)	13(2.3)	**0.006**	**0.000**	0.115	**0.045**	**0.000**
Felt that pharmacy would have high income?	123(21.9)	129(23.0)	186(33.1)	95(17.1)	28(5.0)	**0.025**	**0.000**	0.984	0.284	**0.000**
Joined pharmacy as a gateway to dentist/medicine?	147(26.7)	184(32.7)	137(24.4)	71(12.6)	23(4.1)	**0.042**	**0.001**	0.172	0.713	**0.000**
Joined pharmacy because I want to work in pharmaceutical company?	136(24.2)	161(28.6)	128(22.8)	113(12.6)	24(4.3)	**0.005**	**0.000**	0.854	0.791	**0.000**
Joined pharmacy because I want to work in private sector?	166(29.5)	165(29.4)	128(22.8)	80(14.2)	142(4.1)	0.184	0.407	0.095	**0.007**	0.071
Joined pharmacy because I want to work in government sector?	174(31.0)	152(27.0)	14726.2)	73(13.0)	16(2.8)	0.427	**0.013**	0.506	**0.043**	0.190
Because I don't have any other option	143(25.4)	149(26.4)	114(20.3)	100(17.8)	56(10.0)	**0.001**	**0.000**	0.261	**0.004**	0.000
Awareness										
I was aware about the scope of pharmacy profession?	158(28.1)	212(37.7)	113(20.1)	57(10.1)	22(3.9)	0.792	**0.003**	0.595	0.139	**0.037**
I was aware about importance of pharmacy in the health care system	169(30.1)	218(38.8)	111(19.8)	49(8.7)	15(2.7)	**0.002**	**0.001**	0.351	0.056	**0.011**
Research knowledge										
I am interested in research work?	176(31.3)	188(33.5)	119(21.2)	54(9.6)	25(4.4)	0.120	**0.028**	0.301	0.276	**0.002**
I intend to pursue a post graduate research degree?	152(27.0)	191(34.0)	129(23.0)	65(11.6)	25(4.4)	0.232	0.195	0.454	0.807	0.137
I am involved in research project?	147(26.2)	186(33.1)	93(16.5)	99(17.6)	37(6.6)	**0.013**	**0.000**	0.492	**0.018**	**0.014**
I think research is not boring?	168(29.9)	186(33.1)	116(20.6)	66(11.7)	26(4.6)	0.632	0.087	0.965	0.166	0.057
Immediate family is involved in the research?	106(18.9)	145(25.8)	124(22.1)	141(25.1)	46(8.2)	0.097	**0.000**	0.113	0.299	**0.000**
Friends involved in research?	78(13.9)	181(32.2)	133(23.7)	126(22.4)	44(7.8)	**0.003**	**0.000**	**0.025**	0.070	**0.016**
Research is easy?	87(15.5)	120(21.4)	159(28.3)	130(23.1)	66(11.7)	**0.038**	**0.000**	0.707	0.539	**0.000**

*SA = Strongly Agree. A = Agree. N = Neutral. D = Disagree. SD = Strongly Disagree. P-value < 0.05 considered significant.

The respondents with high income would like to do the job in government sector as well as in private sector. After graduation, common prospects were to do the job in healthcare department providing a safe and sound environment with handsome salary and other incentives (Dambisya *et al.*, 2007). The present research showed that majority of respondents chose Clinical pharmacist and Hospital pharmacist as a preferred career option. A study reported that awareness of Clinical pharmacy career choice is increased within pharmacy profession by introducing the Exploring Career in Clinical Pharmacy event (Ray *et al.*, 2017). The career preferences of students should be known that facilitates the members of the faculty to plan various methods of teaching for a particular program. By showing the faculty preference, it may intensify the ability to understand their own learning and teaching styles as well (Shuck and Phillips, 1999). In the United States, a study reported that faculty members play a significant role in preparing pharmacy students for an academic career by using various methods like the initiation of seminars conducted by pharmacy student's organization, learning activities and exposure of students to academic roles other than pharmacy practice (Haines *et al.*, 2017).

Leadership is the central core of the institute. Participants were more in favor that leader must take the charge of the group but the present study showed insignificant association when compared with demographic characteristics. The views about the leadership carrying the responsibilities of the organization which are assigned to a specific person to control whole organization and to take the decision of the organization are observant (Wielkiewicz, 2000). Leaders know how to handle the situation. They are responsible for the security of the members of the whole organization. This survey was designed to find out the leadership attitudes and beliefs towards the pharmacy profession. The respondents showed positive response towards adaptability, revolution and behavioral issues of leadership. Evolving pharmacy students as leaders is influential in the development of their profession (Moore and Ginsburg, 2017). Within the ecological model of leadership, hierarchical thinking and systemic thinking were examined. Hierarchical leadership maintains complete authority concentrating on projects

to accomplish desired goals of the organization. Systematic leadership gives freedom to the members of the organization to share their innovative ideas to make organization successful (Fischer *et al.*, 2010).

Table 4: Responses to Leadership attitudes and beliefs of pharmacy students.

Statements	Candidate's Response					p-value				
	SA* N (%)	A* N (%)	N* N (%)	D* N (%)	SD* N (%)	Age	Gender	Scholar	Income	Education System
I know difference between hierarchical and systemic thinking?	125(22.2)	219(39.0)	128(22.8)	68(12.1)	22(3.9)	**0.034**	**0.000**	0.261	**0.030**	**0.000**
A leader must control the group or organization?	191(34.0)	264(47.0)	76(13.5)	19(3.4)	12(2.1)	**0.022**	**0.005**	0.271	0.092	0.156
A leader must maintain tight control of organization?	204(36.6)	239(42.5)	79(14.1)	35(6.2)	5(0.9)	0.054	0.853	0.402	0.593	0.196
A leader should maintain complete authority	173(30.8)	238(42.3)	99(17.6)	36(6.4)	16(2.8)	0.620	0.344	0.310	**0.025**	0.203
A leader should take charge of the group?	159(28.3)	266(47.3)	101(18.0)	29(5.2)	7(1.2)	0.262	0.548	0.513	0.840	0.360
The main tasks of leader is to make and then communicate the decisions?	195(34.7)	247(44.0)	76(13.5)	41(7.3)	3(0.5)	0.165	0.200	**0.005**	0.126	0.121
The main task of leader is to make decisions for the organization?	204(36.3)	235(41.8)	97(17.3)	19(3.4)	7(1.2)	0.410	0.051	**0.031**	0.228	0.430
Positional leaders deserves credit for the success of the organization?	161(28.6)	234(41.6)	127(22.6)	29(5.2)	11(2.0)	0.752	0.241	0.281	0.140	0.336
The responsibilities of taking task lies with the leaders of an organization?	141(25.1)	240(42.7)	138(24.6)	36(6.4)	7(1.2)	0.561	0.189	0.248	0.233	0.214
It is important that a single leader emerge in a group?	155(27.6)	196(34.9)	151(26.9)	48(8.5)	12(2.1)	0.361	0.144	0.281	0.145	**0.000**
Members should be completely loyal to the designated leaders of an organization	221(39.3)	206(36.7)	102(18.1)	26(4.6)	7(1.2)	**0.004**	0.053	0.086	0.300	0.378
The most important members of organization are its leaders?	145(25.8)	213(37.9)	135(24.0)	52(9.3)	17(3.0)	0.082	0.461	0.128	0.682	**0.028**
When an organization is in danger of failure, new leaders are needed to fix its position?	138(24.6)	224(39.9)	129(23.0)	61(10.9)	10(1.8)	**0.037**	0.220	0.349	0.812	**0.001**
Leaders are responsible for the security of organization members?	153(27.2)	238(42.3)	130(23.1)	35(6.2)	6(1.1)	0.984	0.341	0.419	0.574	0.702
An organization should try to maintain as stable as possible?	178(31.7)	269(47.9)	100(17.8)	10(1.8)	5(0.9)	0.281	0.268	0.074	0.449	0.523

*SA = Strongly Agree. A = Agree. N = Neutral. D = Disagree. SD = Strongly Disagree. P-value < 0.05 considered significant.

Based on our findings, the majority of the respondents agreed that leader should take charge of the whole organization and are responsible for the security of the organization members. They were also in agreement that a leader must maintain the tight control of the organization and members should be completely loyal to the designated leaders of an organization. Day scholars believed that duty of a leader is to make a decision and then communicate decisions with other members of the organization. Majority of the participants declared that positional leader deserves credits for the success of an organization but significant association was not observed when compared with demographic characteristics. Statistically, participants of the age group of 22-23 years showed a positive response on the leadership that seeks out the resources needed to adapt to the changing world. Moreover, the majority of females were in the agreement that anticipating future is one of the most important roles in the leadership process. Institutions must provide new opportunities for the students to get involved in a group of tasks that can enhance leadership attitudes and beliefs. Individual students are not as much self-oriented of their leadership skills as group students (Allen *et al*., 2000).

The fundamental principles of leadership commands are to control the group and make decisions that result in the efficient leadership development (Traynor *et al.*, 2013). Leaders should resolve the ethical issues. In order to achieve the leadership goals, a different method is utilized such as becoming a member of the management group, attending meetings of the organization, sharing and exploring the ideas that could be beneficial for the whole organization (Zilz *et al.*, 2004). According to the survey, the majority of the female respondents suggested that leadership process involves the participation of all members of the whole organization and organizational actions should improve life for future generation. Furthermore, more than half of the respondents agreed that each member of the organization should be responsible for the accomplishment of organizational goals.

In order to exemplify the leadership development, new different subjects such as professionalism and entrepreneurship should be introduced that may result in the accomplishment of leadership development (Feller *et al.*, 2016). Different leadership programs should be arranged for the evaluation of the availability of the resources and the potency of the opportunity based on leadership attitudes and beliefs. Students should participate in the curriculum activities so that they can understand the value of leadership.

CONCLUSION

Pharm-D students chose clinical pharmacist, hospital pharmacist as a preferred career option after the graduation. More than half of the respondents were aware of the scope of pharmacy. Majority of students were interested in research. Different leadership establishment programs should be conducted

to develop hierarchical and systematic skills of leadership among students. These systemic and hierarchical capabilities will help the pharmacy students to understand that leadership plays a significant role in promoting the long-term survival of the whole organization. Furthermore, not to devalue the significance of accepting the role of systemic and hierarchical leadership willingly when considered mandatory for the organization.

Table 5: Responses towards systemic thinking statements.

Statements	Candidate's Response					p-value				
	SA* N (%)	A* N (%)	N* N (%)	D* N (%)	SD* N (%)	Age	Gender	Scholar	Income	Education System
An effective organization develops its human resources?	180(32.0)	278(49.5)	87(15.5)	6(1.1)	11(2.0)	**0.019**	0.480	**0.019**	0.746	0.073
Leadership activities should foster discussion about the future?	154(27.4)	282(50.4)	112(19.9)	9(1.6)	5(0.9)	0.871	0.309	0.159	0.228	0.235
Effective leadership seeks out resources needed to adapt to the changing world?	201(35.8)	245(43.6)	97(17.3)	15(2.7)	4(0.7)	**0.004**	0.266	0.438	0.272	0.169
Individual needed to take the initiatives to help their organization to accomplish its goals?	205(36.5)	245(43.6)	93(16.5)	10(1.8)	9(1.6)	0.275	**0.019**	0.154	0.576	0.139
Leaderships should encourage innovations?	235(41.8)	237(42.2)	65(11.6)	13(2.3)	12(2.1)	**0.001**	0.500	**0.029**	0.825	0.172
Organizational actions should improve life for future generations?	206(36.7)	251(44.7)	86(15.3)	9(1.6)	10(1.8)	**0.011**	**0.000**	**0.003**	0.537	0.088
Everyone in an organization need to be responsible for accomplishing the organizational goals?	234(41.6)	223(39.7)	91(16.2)	11(2.0)	3(0.5)	0.302	0.087	0.621	0.545	0.146
Leadership process involves the participation of all organization members?	207(36.8)	252(44.8)	81(14.4)	16(2.8)	6(1.1)	0.196	**0.003**	0.087	0.235	0.545
Anticipating the future is one of the most important roles of leadership process?	189(33.6)	265(47.2)	82(14.6)	21(3.7)	5(0.9)	0.119	**0.001**	0.351	0.922	**0.000**
Good leadership requires that the ethical issues have high priority?	214(38.1)	226(40.2)	100(17.8)	16(2.8)	6(1.1)	0.410	0.897	0.097	0.445	0.178
Successful organizations make continuous learning their highest priority?	229(40.7)	232(41.3)	77(13.7)	11(2.0)	13(2.3)	0.535	0.073	**0.030**	0.849	**0.003**
Environmental preservation should be a core value for every organization?	215(38.3)	224(39.9)	102(18.1)	18(3.2)	3(0.5)	0.839	0.245	0.052	0.113	**0.000**
Organization should be ready to adapt to changes that occur outside the organization?	203(36.1)	215(38.3)	121(21.5)	18(3.2)	5(0.9)	0.286	**0.001**	**0.002**	0.807	0.120
An organization needs flexibility in order to adapt to a rapidly changing world?	211(37.5)	236(42.0)	102(18.1)	11(2.0)	2(0.4)	0.310	**0.006**	0.980	0.089	**0.000**

*SA = Strongly Agree. A = Agree. N = Neutral. D = Disagree. SD = Strongly Disagree. P-value < 0.05 considered significant.

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CONFLICT OF INTEREST

Authors don't have a conflict of interest.

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ETHICAL APPROVAL

All steps carried out in this research were in accordance with ethical guidelines of the institution.

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