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Exploring the Elements of Visionary Leadership: A Case Study of Faculty Members in Macro Universities of Medical Sciences in Region 1 in Iran

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ABSTRACT

Objective: The purpose of this study is to investigate the components that make up visionary leadership among faculty members in medical science universities across Iran's Region 1.

Materials and Methods: In this study, a descriptive survey was conducted to gather information on faculty members from universities of medical sciences in region 1. A total of 320 participants completed a questionnaire containing 91 questions. The collected data were analyzed using exploratory and confirmatory factor analysis tests. The findings indicated that Visionary Leadership consisted of two dimensions - individual and organizational - each with three components. The individual dimension pertained to the characteristics, skills, and behaviors of visionary leaders, while the organizational dimension included the thematic role, schematic role, and matric role of visionary leadership within the organization.

Results: The highest standard coefficient was related to the component of characteristics of visionary leaders for the individual dimension and the schematic role of visionary leaders in the organization for the organizational dimension.

Conclusion: These findings can help managers and authorities of medical education institutions to train high-powered executives who are committed and motivated to implement the Strategic Declaration of the Supreme Leader. It is necessary to establish a national resolve in this field to improve the quality of medical education in Iran.

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Introduction

Leadership is one of the most basic topics in organizational and management research. In other words, leadership is a choice of influence. Leadership includes a wide range of methods to maximize the potential of human capital to achieve organizational goals (Golafshani & Salehi, 2017). The leadership style is one of the fundamental management components that significantly impact service delivery (Abbasi Khameneh et al., 2018). The quantitative and qualitative improvement of medical education requires the presence of knowledgeable managers with the necessary skills and knowledge to lead a large number of faculty members, students, managers, and staff in medical universities (Golafshani, Salehi, & Zameni, 2018). Today, addressing the topic of management and leadership in the medical education system is crucial for preventing, and treating diseases, as well as maintaining and improving public health. The administrators of the educational system, namely managers and leaders, are the most critical factors in creating favorable conditions for achieving educational objectives (Banihashemiyan et al., 2012).

The current health system suffers from problems and a big gap in the field of management and leadership competencies. Identifying and developing potential managers (visionary) to train successful leaders of the future can eliminate this gap (Mhoon-Walker, 2012). Therefore, one of the strong trends in modern leadership has been called visionary leadership since the 80s as an important concept was raised in leadership literature. Visionary leadership draws the perspective of the organization. This view is often determined as an essential component of effective leadership (Bunnoiko & Atthirawong, 2017).

The first and clearest thing is that the organizations of the 21st century need visionary leadership, and they cannot continue to exist without it; a visionary leader who knows how to row in the direction of the wind and how to row against it. More importantly, he knows which way the wind is blowing. The visionary leader tries to direct the changes in the direction of his insight. Visionary leadership should be institutionalized in educational organizations to create motivation and innovation in educational interactions, to be in sync with students' education, and to promote organizational interaction, based on creativity and scientific and technological progress (Molina, 2018).

The art of a visionary leader is to have the ability to imagine and picture the future. A university president should create collective enthusiasm as well as tactful leadership, and more than anyone else, they should have a clear understanding of the organization's vision. ; they should have patience and perseverance in interacting with faculty members, assistant professors, department heads, faculty deans, and staff in setting goals for their university or higher education institution (Ateş et al., 2020).

Visionary leaders of higher education are the architects of the future of their university or institution of higher education, who are often recognized by challenging the status quo or by anticipating new — and unknown — opportunities. Leaders of universities and institutions of higher education Those who lead themselves to better insights are true artists. A visionary educational leader should have energy, commitment, entrepreneurial spirit and high values (McCaffery, 2010).

Gourchian in his review has pointed out fifteen insights of higher education, which are: insight of understanding meta-complexity, insight of dynamic self-regulation, legal insight, skill insight (life and macro skills), research insight (research publication), technology insight, The insight of organizing seminars for professional awareness, the insight of learning in the real world of life, the insight of using the interdisciplinary method, the insight of how to use the breadth of learning resources, the insight into the quality of teaching, the insight into multicultural affairs, the insight into the participation of peer groups and students in Education, insight is a virtual attitude to the university, insight in global and international affairs (Gourchian, 2004).

Social developments have been accompanied by changes in the field of education (Lassoued et al., 2020). In addition to health, social and economic problems, the spread of COVID-19 and the lack of a vaccine and definitive treatment have also caused problems in education (Arashiro et al., 2020). So, schools and universities around the world were closed as unnecessary departments (Scull et al., 2020). Sometimes after this event, 195 countries decided to close schools. Education continued from home and about 1 billion and 600 million students stopped studying. The spread of this disease in a short period of time changed the opinion of the whole world towards education, and the method of education underwent many changes(Etedadi et al., 2020).

Verbal interactions with the teacher are important aspects of learning (Zylich et al., 2020). However, due to people's fear of further development of the disease, face-to-face training is not possible (Javier, 2020). In March, it was estimated that about 850 million people in the world were looking for non-attendance training methods and replacing them with fewer face-to-face courses (Johnson et al., 2020). E-learning prevented education from being suspended during the outbreak (Chang & Fang, 2020). The coronavirus epidemic has caused education to be done online and using electronic education systems, and the quality of these multimedia is very important (Lassoued et al., 2020).

This epidemic, that has occurred in the world, has caused a sudden change to the use of distance education methods, but the lack of time, poor infrastructure, and lack of sufficient content are considered obstacles in this type of education, so using the components of visionary educational leaders are very important during the COVID-19 pandemic. The literature review of higher education leadership shows that the current framework cannot meet the needs of higher education in the future. Because successful leadership in the university should be able to create and increase

components such as trust, respect, growth, learning, satisfaction, productivity, and creativity (Aghababayi et al., 2013).

Leadership is a phrase full of ambiguity and full of different interpretations. The findings of numerous studies indicate that effective educational visionary leadership requires dialogue and expansion of teachers' professional growth, strengthening their reflection and thinking. Effective visionary leadership is a process that has a clear vision of the future of the educational environment for all learners.

Traits, components, behaviors, and styles of visionary leaders

A visionary leader is a person who can design an attractive vision for the future of his organization, attract the commitment of his people to it, and put that vision into action by making the necessary organizational changes. Unlike traditional managers, visionary leaders emphasize long-term goals rather than short-term and immediate goals. They are more interested in innovation and change than stability and control. They have literally changed their institutions (Ateş et al., 2020).

In general, making changes in educational institutions and universities depends on the level of competence of the institution and the way of leadership and management of that institution (Hassanian, 2004).

In studies conducted by Golafshani, Salehi and Zameni (2018), Haghverdi Taghanaki (2012), Vedadi et al. (2010), Coers (2018), Venus et al. (2015) and Dhammika (2014). Which was done in harmony. Based on these studies, the most important components of visionary leaders were investigated, which are: strategic management, change and innovation management, problem-solving, characteristics and skills and behaviors, analysis and analysis, and diagnosis of the organization (Golafshani, Salehi, & Zameni, 2018). However, the most important characteristics, behavior, and style of a visionary leader from the point of view of theorists, after studying the existing views, are categorized and drawn in Figures 1 and 2 below (Figure 1).

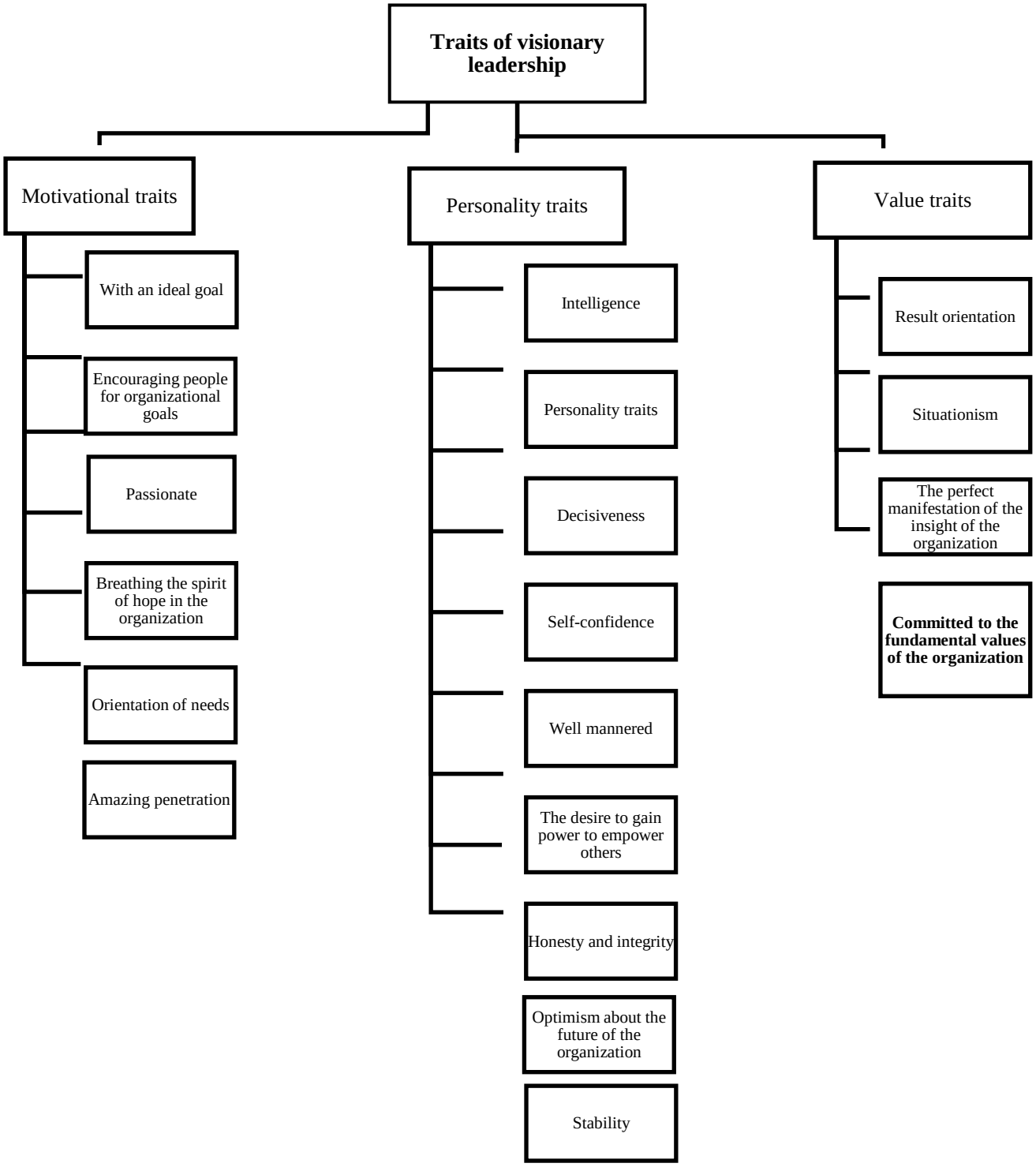
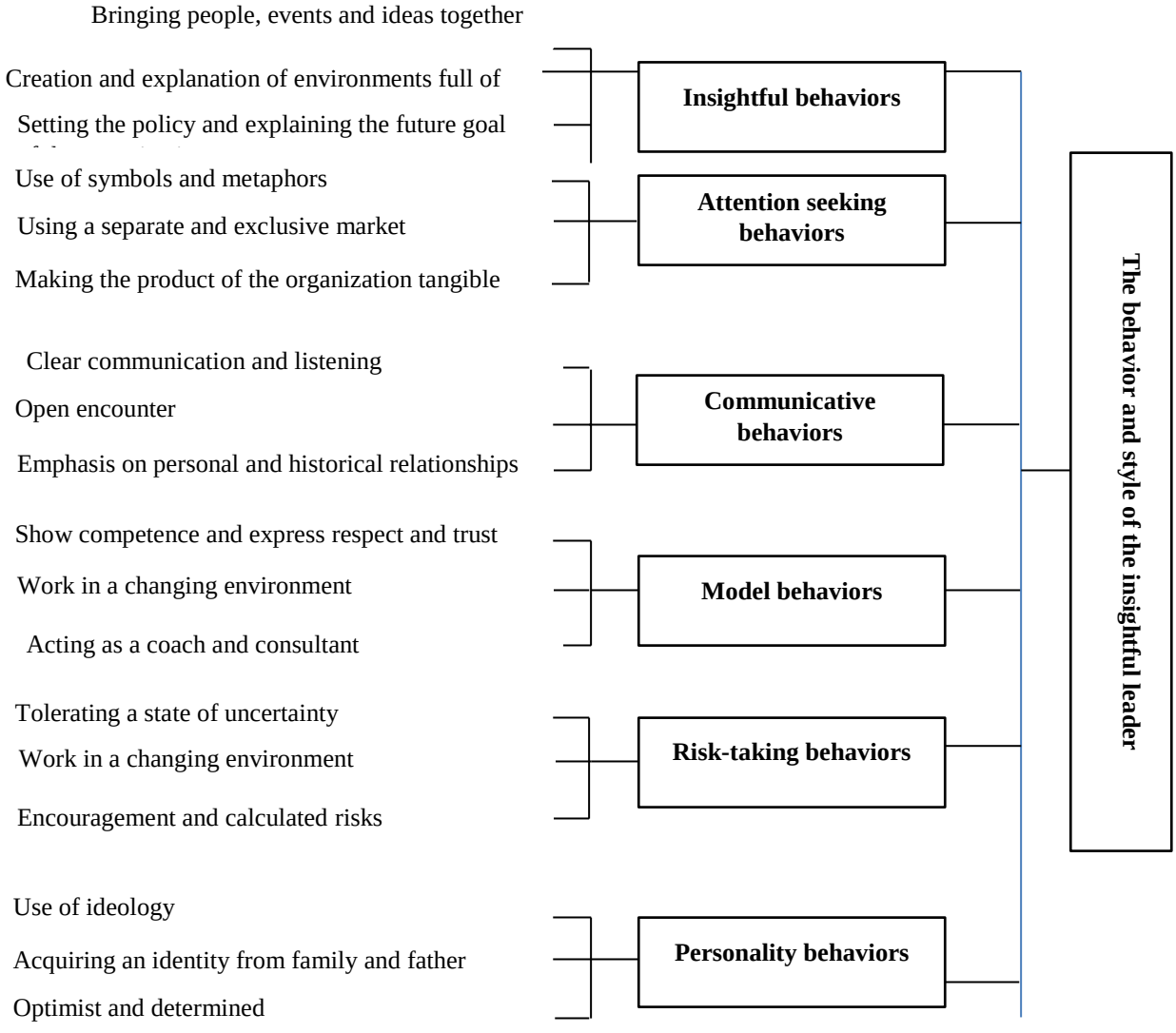


Figure 1. Characteristics of visionary leadership from the point of view of theorists

In the modern era, with the latest management and leadership theories emerging, it has become increasingly clear that a visionary leader is the most important factor in achieving success. Such a leader can bring about transformational change and innovation within their organization. Drawing upon extensive research into the behaviors and styles of visionary leaders, we have developed a diagram that summarizes the key elements of this distinctive leadership style. By understanding and implementing these principles, organizations can achieve higher levels of performance and create a brighter future for themselves and their stakeholders.



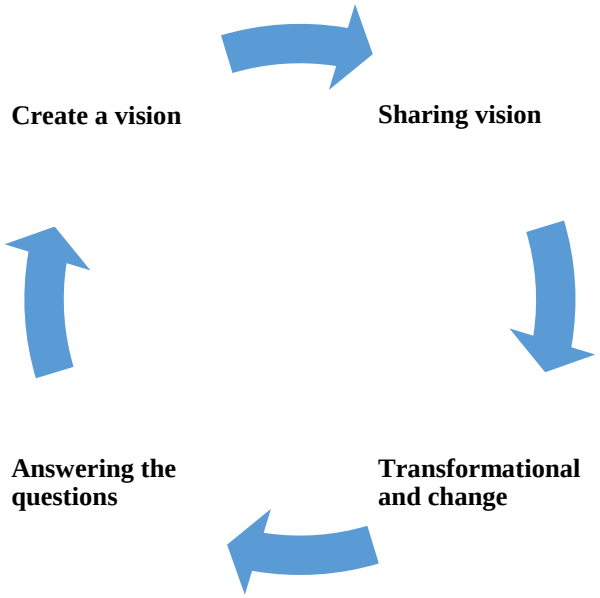


Figure 2. The behavior and style of a visionary leader (Sadeghi & Mohtashami, 2012)

Based on the points mentioned in the concept of enlightened leadership, all individuals are obligated to develop enlightened leadership in alignment and coordination with current organizational guidelines. This emphasizes the necessity for all members to have an inspirational approach toward this issue (Ozgholi, 1996). Examining the findings of theorists' studies about visionary leadership showed: visionary leadership must first create a vision and then share this vision and cause transformation in public sectors and transformation in the organization, and in this way, to the questions that It is created to respond. Visionary leaders often have four roles: leader, change agent, speaker, and coach (Golafshani & Salehi, 2017). Given the emergence of the new and highly contagious disease, COVID-19, in the world and its widespread transmission, which has led to serious problems in the health sector as well as other areas such as the economy and education, causing the closure of these sectors. While adhering to health protocols, important matters such as education should be taken seriously and given special attention. Therefore, the process of leadership and management has a direct impact on the educational, research, and of course, therapeutic capabilities of the country's medical universities in creating a desirable organizational atmosphere and ultimately their success during the COVID-19 pandemic (Ghaderi et al., 2018). Considering the emphasis of faculty members and medical students on the efficiency of a medical leader, as well as the necessity for medical professors and students to be familiar with leadership concepts and to train them as effective and informed leaders, becomes essential and leads to empowerment during the COVID-19 pandemic. The increasing complexity of healthcare systems requires more efficient medical leaders to make decisions within the organization, but only a few physicians have been trained to work as effective leaders (Golafshani, Salehi & Zameni, 2018). Therefore, while providing for financial needs, infrastructure, and educational facilities, and

enhancing attractiveness to increase quality in various fields, especially virtual and remote teaching during the current sensitive period, it is better to pay special attention to the use of this method of education even after controlling COVID-19, so that everyone can benefit from it in the coming years. Hence, this study aims to identify the dimensions and components of informed leadership during the COVID-19 pandemic in the major medical universities of a region as a means of improving the Iranian health system.

Materials and Methods

This research is a descriptive survey in terms of purpose, applicability, and method. The statistical population consists of all faculty members of major medical universities in a region, which constitutes 1,851 individuals in the field of health education in Iran. Based on Cochran's formula, a sample size of 320 individuals was selected using stratified random sampling based on university units.

Table 1. The number of the population and the statistical sample by university

University	The Community	Sample	Percent
Babol	360	62	19.45
Semnan	205	35	11.08
Shahrood	130	22	7.02
Golestan	308	53	16.64
Guilan	443	77	23.93
Mazandaran	405	70	21.88
Total	1,851	320	100

To collect the data, a researcher-made questionnaire on informed leadership with 91 questions and two dimensions of "the individual and organizational" and six components of "characteristics, skills, behaviors, role-playing of informed leaders in the organization, the schematic role of informed leaders in the organization, and matrix role of informed leaders in the organization" was used. The formal and content validity of the tool was confirmed by experts, and its reliability was calculated using Cronbach's alpha coefficient of 0.92, which is statistically significant and approved. Exploratory and confirmatory factor analysis tests were used to analyze the data using SPSS20 and PLS software.

Results

Initially, a summary of the demographic characteristics of the respondents was presented in a classified form: In terms of gender variable, 36.9% of the sample were women and 63.1% were men. In terms of the age variable, 13.5% of the sample were under 40 years old. 60.6% were between 40 and 50 years old, and 25.9% were over 50 years old. In terms of work experience variable, 20.9% had less than 10 years of work experience, 56.3% had 10 to 20 years of work experience, and 22.8% had more than 20 years of work experience. In terms of academic rank

variables, 10.9% were instructors. 64.1% were assistant professors, 19.1% were associate professors, and 5.9% were full professors. Exploratory factor analysis was used to identify the dimensions and components of informed leadership. Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett's Test were used to assess the suitability and necessary conditions of the data for factor analysis.

Table 2. Results of the KMO and Bartlett's test

Dimensions	KMO and Bartlett statistics	Test result	The name of the obtained	Percentage of explained variance
Individual	0.799= KMO 0.000=sig	Confirmation of data adequacy and correlation	Characteristics of visionary leaders Skills of visionary leaders Behaviors of visionary leaders	76.714
Organizational	0.933= KMO 0.000=sig	Verification of adequacy and correlation of data	The thematic role of visionary leaders in the organization Schematic role of visionary leaders in the organization The matrix role of visionary leaders in the organization	71.124

The value of the KMO statistic for both dimensions was calculated to be more than 0.7. Additionally, the result of Bartlett's test showed that the significance level for all variables was calculated as Sig < 0.05. Therefore, the data possess the necessary sufficiency and correlation to perform exploratory factor analysis. The percentage of explained variance in the last column indicates that 76.714% in the individual dimension and 71.124% in the organizational dimension can be explained by the extracted components. Furthermore, Tables 3 to 6 include the exploratory factor analysis and determination of the factor loading for each of its dimensions and components (Table 3).

Table 3. Exploratory factor analysis results: determination of factor load for individual dimension components

No.	Question code	Subscription ratio	First factor load	Second factor load	Third factor load
1.	AA1	0.769	0.815	0.148	0.045
2.	AA2	0.622	0.704	0.166	0.160
3.	AA3	0.737	0.729	0.189	0.197
4.	AA4	0.768	0.772	0.227	0.176
5.	AA5	0.728	0.809	0.121	0.123
6.	AA6	0.836	0.856	0.154	0.129
7.	AA7	0.754	0.795	0.168	0.138
8.	AA8	0.854	0.850	0.206	0.199
9.	AA9	0.687	0.729	0.089	0.059
10.	AA10	0.681	0.749	0.109	0.177

11.	AA11	0.821	0.859	0.120	0.194
12.	AA12	0.867	0.869	0.116	0.215
13.	AA14	0.874	0.884	0.117	0.217
14.	AA15	0.834	0.865	0.145	0.188
15.	AA17	0.393	0.273	0.200	0.181
16.	AB4	0.776	0.189	0.829	0.096
17.	AB5	0.738	0.145	0.815	-0.014
18.	AB6	0.693	0.142	0.802	0.121
19.	AB7	0.699	0.174	0.801	0.075
20.	AB9	0.791	0.158	0.834	0.024
21.	AB10	0.721	0.124	0.822	0.054
22.	AB11	0.679	0.158	0.794	0.097
23.	AB12	0.422	0.292	0.150	0.181
24.	AB14	0.567	0.179	0.293	0.210
25.	AC2	0.413	0.235	0.189	0.167
26.	AC3	0.314	0.193	0.157	0.145
27.	AC5	0.266	0.272	0.115	0.099
28.	AC6	0.713	0.082	0.053	0.823
29.	AC7	0.883	0.196	0.068	0.881
30.	AC8	0.822	0.158	0.083	0.854
31.	AC10	0.693	0.168	0.115	0.751
32.	AC11	0.832	0.145	0.076	0.877
33.	AC12	0.873	0.164	0.055	0.893

Due to their low sharing ratio and factor load, questions 15, 23, 24, 25, 26, and 27 have been removed from the question set. This can be seen in Table 3. The modified factor loading for each component within the individual dimension is displayed in Table 4.

Table 4. The results of the exploratory factor analysis test and the determination of the factor loading for the components of the individual dimension

No.	Question Code	Share ratio	The first factorial load	The second factor loading	The third factorial load
1.	AA1	0.765	0.824	0.154	0.051
2.	AA2	0.621	0.735	0.185	0.179
3.	AA3	0.736	0.764	0.205	0.214
4.	AA4	0.728	0.792	0.236	0.187
5.	AA5	0.827	0.827	0.133	0.135
6.	AA6	0.834	0.872	0.164	0.139
7.	AA7	0.752	0.806	0.170	0.141
8.	AA8	0.851	0.862	0.209	0.204

9.	AA9	0.689	0.734	0.101	0.072
10.	AA10	0.678	0.753	0123	0.191
11.	AA11	.824	0.863	0.122	0.197
12.	AA12	.867	0.871	0.119	0.219
13.	AA14	0.875	0.887	0.119	0.220
14.	AA15	0.832	0.865	0.152	0.194
15.	AB4	0.776	0.206	0.838	0.106
16.	AB5	0.738	0.164	0.825	-0.004
17.	AB6	0.691	0.147	0.805	0.125
18.	AB7	0.701	0190	0.811	0.085
19.	AB9	0.788	0.186	0.850	0.041
20.	AB10	0.719	0.126	0.824	0.057
21.	AB11	0.677	0.169	0.799	0.102
22.	AC6	0.714	0.087	0.058	0.828
23.	AC7	0,883	0.210	0.075	0.890
24.	AC8	0.822	0175	0.091	0.863
25.	AC10	0.683	0.207	0.133	0.771
26.	AC11	0.830	0150	0.079	0.881
27.	AC12	.872	0.174	0.059	0.899

The present study aimed to identify the key components of the individual dimension of visionary leaders, which included their characteristics, skills, and behaviors. A total of 27 questions were used to measure these components, with question 27 showing the highest factor loading of 0.899 and question 9 showing the lowest at 0.734. The first component, which pertained to the characteristics of visionary leaders (questions 1-14), exhibited a range of factor loads from 0.887 for question 13 to 0.734 for question 9. The second component focused on the skills of visionary leaders (questions 15-21), with factor loads ranging from 0.850 for question 19 to 0.799 for question 21. The third component related to the behavior of visionary leaders (questions 22-27), and question 27 showed the highest factor load of 0.899 while question 25 had the lowest at 0.771. The findings are presented in Table 4.

In addition, the study determined that the organizational dimension was composed of three components: the role of visionary leaders, pragmatic leaders, and matrix leaders in the organization. A total of 46 questions were used to measure these components, with question 24 exhibiting the highest factor loading of 0.880 and question 45 showing the lowest at 0.523. Factor loadings for the first component, the role of pragmatic leaders (questions 16-29), ranged from 0.880 for question 24 to 0.818 for question 27. Factor loadings for the second component, the role of visionary leaders (questions 1-15), ranged from 0.851 for question 8 to 0.737 for question 13. Factor loadings for the

third component, the role of matrix leaders (questions 30-46), ranged from 0.838 for question 35 to 0.523 for question 45. The confirmatory factor analysis was conducted to further examine the questions, and the results are presented in Table 5.

Table 5. The results of the exploratory factor analysis test and the determination of the factor load for the components of the organizational dimension

No	Question Code	Share ratio	The first factorial load	The second factor loading	The third factorial load
1.	AD2	0.671	0.097	0.810	-0.003
2.	AD3	0.007	0.099	0.812	0.002
3.	AD4	0.595	0.060	0.733	0.146
4.	AD5	0.745	0.069	0.852	-0.003
5.	AD6	0.717	0.143	0.760	0.052
6.	AD7	0.672	0.019	0.809	0.043
7.	AD8	0.653	0.009	0.804	0.052
8.	AD9	0.778	0.094	0.856	0.008
9.	AD10	0.673	0.083	0.804	-0004
10.	AD11	0.641	0.030	0.784	0.052
11.	AD12	0.606	0.019	0.757	0.076
12.	AD13	0.739	0.072	0.849	0.071
13.	AD14	0.575	0.016	0.731	0.023
14.	AD15	0.698	0.069	0.749	0.060
15.	AD16	0.650	0.100	0.766	0.004
16.	AD18	0.531	0.414	0.359	0.055
17.	AD21	0.562	0.420	0.432	-0.024
18.	AE1	0.755	0.858	0.081	-0.022
19.	AE2	0.720	0.828	0.017	-0.037
20.	AE3	0.757	0.856	0.080	0.033
21.	AE4	0.691	0.797	0.074	0.004
22.	AE5	0.751	0.834	0.076	0.015
23.	AE6	0.732	0.838	-0.012	0.008
24.	AE7	0.769	0.854	0.023	0.025
25.	AE8	0.720	0.818	0.081	0.044
26.	AE9	0.780	0.870	0.067	0.026
27.	AE10	0.723	0.816	0.068	0.012
28.	AE11	0.748	0.830	0.154	0.006
29.	AE12	0.696	0.814	0.142	-0.008
30.	AE13	0.067	0.857	0.025	0.031
31.	AE14	0.784	0.866	0.089	0.013
32.	AE15	0.437	0.230	0.064	0.212
33.	AE16	0.417	0.225	0.038	0.291
34.	AE17	0.378	0.228	-0.008	0.161
35.	AE21	0.359	0.276	0.051	0.116
36.	AE22	0.423	0.267	0.081	0.230
37.	AE23	0.273	0.238	0.039	0.008
38.	AE24	0.383	0.354	0.013	0.076
39.	AE25	0.369	0.253	-0.036	0.086
40.	AF1	0.704	0.033	0.013	0.726

41.	AF2	0.730	0.014	-0.020	0.753
42.	AF3	0.751	-0.023	-0.003	0.795
43.	AF4	0.675	0.037	-0.037	0.697
44.	AF5	0.758	-0.055	0.027	0.008
45.	AF6	0.821	-0.051	0.012	0.817
46.	AF7	0.738	0.016	0.113	0.729
47.	AF8	0.733	0.019	0.057	0.723
48.	AF9	0.755	0.054	0.088	0.748
49.	AF10	0.734	0.041	0.060	0.794
50.	AF11	o.732	0.008	0.155	0.805
51.	AF12	0.723	-0.083	0.047	0.814
52.	AF13	0.654	0.62	0.034	0.674
53.	AF17	0.588	0.001	0.057	0.475
54.	AF18	0.581	-0.-17	-0.001	0.556
55.	AF19	0.593	-0.005	0.009	0.677
56.	AF20	0.655	0.110	-0.209	0.431
57.	AF21	0.690	0.040	0.004	0.486
58.	AF24	0.483	0.063	0.066	0.357

Questions 16, 17, 32, 33, 34, 35, 36, 37, 38, 39, 53, and 58 are removed from the set of questions due to the low value of the sharing ratio and also the low factor load. Table 2-4 shows the modified factor load for the components of the organizational dimension (Table 5).

Table 6. Exploratory factor analysis results and determination of factor loading for organizational dimension components

No.	Question Code	Share ratio	The first factorial load	The second factor loading	The third factorial load
1.	AD2	0.670	0.670	0.807	0.008
2.	AD3	0.700	0.106	0.820	-0.003
3.	AD4	0,691	0.071	0.738	0.157
4.	AD5	0.743	0.056	0.847	-0.010
5.	AD6	0.647	0.166	0.782	0.056
6.	AD7	0.642	-0.002	0.800	0.036
7.	AD8	0.651	0.001	0.803	0.044
8.	AD9	0.749	0.073	0.851	-0.012
9.	AD10	0.677	0.085	0.809	-0.015
10.	AD11	0.628	0.042	0.783	0.072
11.	AD12	0.675	0.013	0.744	0.081
12.	AD13	0.725	0.064	0.842	0.073
13.	AD14	0.663	0.025	0.737	0,043
14.	AD15	0.634	0.104	0.766	0.080
15.	AD16	0.656	0.105	0.777	0.012
16.	AE1	0.730	0.850	0.075	-0.020
17.	AE2	0.720	0.847	0.019	-0.032
18.	AE3	0.756	0.863	0.084	0.040
19.	AE4	0.685	0.819	0.078	0.015
20.	AE5	0.749	0.860	0.082	0.021
21.	AE6	0.730	0.850	-0.009	0.000
22.	AE7	0.765	0.870	0.028	0.031
23.	AE8	0.717	0.841	0.97	0.055

24.	AE9	0.781	0.880	0.67	0.028
25.	AE10	0.713	0.835	0.065	0.012
26.	AE11	0.742	0.845	0.152	0.020
27.	AE12	0.694	0.818	0.143	-0.008
28.	AE13	0,763	0.869	0.024	0.042
29.	AE14	0.782	0.879	0.091	0.018
30.	AF1	0.692	0.075	0.018	0.761
31.	AF2	0.737	0.053	-0.019	0.788
32.	AF3	0.761	-0.018	-0.006	0.814
33.	AF4	0.661	0.060	-0.033	0.705
34.	AF5	0.765	-0.039	0.031	0.817
35.	AF6	0.813	-0.042	0.007	0.838
36.	AF7	0.755	0.016	0.114	0.742
37.	AF8	0.723	0.013	0.063	0.748
38.	AF9	0.751	0.043	0.095	0.759
39.	AF10	0.716	0.063	0.067	0.799
40.	AF11	0.709	-0.011	0.143	0.812
41.	AF12	0.731	-0.065	0.051	0.837
42.	AF13	0.697	0.094	0.038	0.670
43.	AF18	0.660	0.019	-0.002	0.548
44.	AF19	0.673	0.004	-0.004	0.667
45.	AF20	0.720	0.138	-0.022	0.523
46.	AF21	0.659	0.074	0.009	0.594

The study's organizational dimension involves three distinctive components, which are the thematic role, schematic role, and matrix role of visionary leaders within the organization. These components comprise a total of 46 questions, with question 24 having the highest factor load of 0.880, and question 45 having the lowest factor load of 0.523. The schematic role component, made up of questions 16 to 29, represents the first load factor, with question 24 having the highest factor load of 0.880 and question 27 having the lowest factor load of 0.818. The thematic role component, consisting of questions 1 to 15, represents the second load factor, with question 8 having the highest factor load of 0.851, and question 13 having the lowest factor load of 0.737. Lastly, the matrix role component, comprising questions 30 to 46, represents the third load factor, with question 35 having the highest factor load of 0.838, and question 45 having the lowest factor load of 0.523 (refer to Table 6).

Further, to examine this question, confirmatory factor analysis was also used, the results of which are presented in Table 7.

Table 7. The results of confirmatory factor analysis

Variable	Dimension	t-value	Standard coefficient	R^2	Component	t-value	Standard coefficient	R^2
Visionary leadership	Individual	16.559	0.795	0.632	Characteristics of visionary leaders	103.341	0.923	0.851
					Skills of visionary leaders	12.253	0.662	0.438
					Behaviors of visionary leaders	12.512	0.686	0.471
	Organizational	21.328	0.809	0.654	The thematic role of visionary leaders in the organization	5.370	0.615	0.378
					Schematic role of visionary leaders in the organization	5.298	0.655	0.429
					The matrix role of visionary leaders in the organization	6.248	0.643	0.413

The results of the confirmatory factor analysis presented in Table 7 indicate that at a confidence level of 99%, the t-values for both dimensions of insightful leadership are outside the interval (2.58, -2.58). In addition, the R2 values for both dimensions are stronger than high, and based on the standard coefficients between the variable of insightful leadership with the individual dimension, the standard coefficient is 0.795, and with the organizational dimension, the standard coefficient is 0.809. Therefore, there is a strong positive and significant relationship between the variable of insightful leadership and both of its dimensions. There is also a strong positive and significant relationship between the individual dimension and its components. The highest standard coefficient (0.923) belongs to the feature component of insightful leaders, and the lowest standard coefficient (0.662) belongs to the skill component of insightful leaders. Furthermore, based on the R2 values, the feature component of insightful leaders has an R2 value of 0.851, which is stronger than high, and the two components of skill and behavior of insightful leaders have R2 values of 0.438 and 0.471, respectively, at a medium level towards strong. There is a strong positive and significant relationship between the organizational dimension and its components. The highest standard coefficient (0.655) belongs to the schematic role component of insightful leaders in the organization, and the lowest standard coefficient (0.615) belongs to the thematic role component of insightful leaders in the organization. Furthermore, based on the R2 values, all three components are at a medium level towards strong. Based on the results of exploratory and confirmatory factor analyses, insightful leadership has two dimensions (individual and organizational). The individual dimension has three components (feature, skill, and behavior of insightful leaders), and the

organizational dimension has three components (thematic role, schematic role, and matrix role of insightful leaders).

In general, making changes in educational institutions and universities depends on the level of competence of the institution and its leadership and management. Poor management in healthcare systems, like a progressing cancer cell, has caused poisoning in the system (Ateş et al., 2020). The findings of question one showed that; visionary leadership has two dimensions (individual and organizational). The individual dimension has three components (the characteristics of visionary leaders, the skills of visionary leaders, and the behaviors of visionary leaders) and the organizational dimension has three components (the thematic role of visionary leaders in the organization, the schematic role of visionary leaders in the organization and the matrix role of visionary leaders in the organization). This finding is in agreement with the results of the research of Golafshani, Salehi and Zameni (2018), Golafshani and Salehi (2019), Haqvardi Taganki (2012), Vedadi et al. (2010), and Dhammika (2014).

The focus of the research was on exploring the various components of visionary leadership, including aspects such as environmental sensitivity, expression of vision, flexibility in change, risk-taking, foresight, patience, empowerment, motivation, creativity, emotional intelligence, and the attributes of a leader. The author believes that the role played by universities of medical sciences in promoting the health and well-being of society is critical and that the quality of healthcare services is largely dependent on effective management and leadership in medical education. According to the author, the development of visionary and strong leadership is essential for the effective implementation of up-to-date knowledge and practices in disease prevention and treatment. Therefore, universities of medical sciences must take proactive steps to cultivate visionary leaders in Iran. To this end, there is a need for widespread fieldwork by visionary academic leaders, in line with the second step of the Supreme Leader's revolution. It is essential to create a national determination in the field of medical science education, which will enable us to move toward the strategic statements of the Supreme Leader. Ultimately, embedding a visionary leadership network within the health system is crucial for achieving the necessary productivity in this area.

Conclusion

The study emphasizes the importance of effective leadership and management in healthcare systems and highlights the various components of visionary leadership within universities of medical sciences. The author stresses that proactive steps must be taken to cultivate visionary leaders in Iran to promote the health and well-being of society and ensure the quality of healthcare services. The article suggests that a structural and strategic review of management and leadership styles in major medical sciences universities is essential for the successful implementation of

medical education development and innovation programs. Overall, the research offers a fresh perspective on policies and transformation in the field of medical education in Iran.

Author Contributions

The authors of this article made an equal contribution to its development. Exactly, all authors were involved in conceptualizing and designing the study, collecting and analyzing data, writing and revising the manuscript, and approving the final version for publication.

Data Availability Statement

Not applicable.

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Ethical considerations

The authors avoided from data fabrication and falsification.

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Conflict of interest

The authors declare no conflicts of interest.

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