Effect of Personality Characteristics' Dimensions on Ethical Leadership

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Abstract

Background: Each of ethical dimensions of leadership which influence employee behavior and organizational trends has a unique importance. Hence, in this research, we aim at studying the characteristics of leaders as potential predictors of an ethical leader's behavior.

Method: The present study was descriptive and a correlational one. The total statistical population of this research was 660 managers of industrial centers and production centers of industrial towns in Hamadan, of which, using simple random sampling based on the Morgan table, the sample size of 248 people were selected. For collecting data, two standard questionnaires of personality traits and ethical leadership were used. And the proposed model was analyzed using structural equation modeling with Smart PLS 2 software.

Results: The results of the research showed that the relationships between conscientiousness and agreeableness variables with ethical leadership were meaningful and positive. And the relationship between neuroticism and ethical leadership is significant, but this is a negative one. And the relationship between extraversion and openness with ethical leadership is not meaningful. Also, the results of structural equation modeling indicated that using conscientiousness, agreeableness, and neuroticism, 67%, 45%, and -47% of ethical leadership can be predicted, respectively.

Conclusion: Based on the findings of the present study, by identifying and determining practical measures related to those personality characteristics of the leader which are in tandem with the ethical behavior of the leaders, it is possible to identify and select the potential ethical leaders to improve the performance of the organizations. Organizations can also choose leaders who are more likely to behave fairly, share power, and clarify roles based on employee personality abilities. The selection and development of managers who have ethical behavior is very important, because ethical misconduct can be costly and damaging to the reputation of leaders and organizations.

Keywords: Ethical leadership, Personality traits, Big five

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Introduction

The ethical characteristic of the leader is uniquely important in that it is expected that such characteristics will have a positive effect on organizational behavior (1, 2). So far, research has shown that ethical leadership predicts outcomes such as organizational citizenship behavior (OCB), organizational commitment (OC), and perceived leadership effectiveness (2, 6). Therefore, understanding the personality traits associated with ethical leadership is important because of the ability of the leader to influence the behavior of the staff and the organization. Recently, a number of studies have included personality traits, and features of the ethical behavior of the leader, and embody a significant empirical basis for arguing that personality traits are important in predicting the phenomenon of ethical leadership (1; 2; 4 and 7).

Ethical leadership is to display normative behavior in a normative way in personal actions and interpersonal relationships, and the persuasion of followers, through mutual communication, encouragement and employee involvement in decision making. Increasing the ethical leadership and the psychological health of the workplace, increases employee self-esteem. The ethical leadership of the system is a role model, and its consequences include ethical decision making, excessive social behavior, positive attitude, job satisfaction, motivation, high organizational commitment of followers, and decreasing unproductive behavior(3).

Some scholars (2) believe that ethical leadership is "to display normative behaviors through personal actions and interpersonal relationships, and to promote such behaviors to followers through mutual communication, support, and decision making." There are two main pillars of ethical leadership: a leader should be a moral person (showing his ethical characteristics and behavioral characteristics as a role model) and a moral manager (in order to promote ethical principles through bilateral communication and reinstatement, reward and punishment). Recent research-

es suggest that ethical leadership improves the positive and ethical behavior among employees (8-12). Existing researches on the characteristics of ethical leaders suggest several prominent features in these leaders: moral and honest manners, ethical consciousness, orientation to society and people, motivating, encouraging, empowering, and managing ethical accountability management (1). When the leader is consistently honest, and acts based on ethical principles and values, he has a high performance in sales, profits, customer retention, reputation and customer satisfaction. In other words, good morals are for good business (13). In terms of word root, the word "personality" is derived from the Latin word "Persona", which refers to the mask that the actors put on their faces in the plays. In fact, "Persona" refers to the external appearance, that is, the public face that we show to others, or the personality can be considered as an obvious aspect of the person's personality in a way that affects others (14).

However, there are several definitions of personality. Here, we refer to some of them. In the Warren Dictionary, the definition of personality is as follows: The personality is referred to as a person's intellectual, emotional and motivational of physiological aspects. In other words, personality is the set of components that prop up a person (15).

Allport defines the personality as: "personality is the moving (living) organization of the physical and mental system of the individual which determines how the individual is adapted to the environment". By "moving (living) organization" Allport means while all its elements are interrelated and interconnected, personality is continuously developing and transforming; also, the physical and mental activities are not separate, and none of them make the personality alone, but they are intermingled and form the personality together.

Although all theorists of personality do not agree on a single definition, it can be said that personality is a relatively stable pattern of traits, tenden-

cies or characteristics which somewhat endows individual behavior. In a more specifically way, the personality is composed of attributes or tendencies that result in individual differences in behavior, the stability of behavior over time, and the continuity of behavior in various situations. These traits can be unique; common in some groups; or shared by all members of the species, but their patterns differ in person. Therefore, anyone, although in a way similar to others, has a unique personality (14).

Cattle and Eysenck's theories are the subject of many studies, and some theorists believe that Cattel focuses on a large number of features, whereas Eysenck considers a small number. As a result, a new theory of personality traits was created, called the Five Great Personality Traits Theory. This model represents the five main characteristics that interact with each other, shaping human personality. Over the past years, special attention has been paid to the role of the five major factors in these behaviors. Two of the ex-

perts (16) introduced five great factors of personality as follows: 1- Conscientiousness, 2- Agreeableness, 3- Extroversion, 4. Neuroticism, 5- Openness.

Each attribute is a specific pattern of behavior that varies in a relatively stable and identical manner in different individuals. When we attribute to ourselves and others the general characteristics of aggression, conservatism and anxiety, in fact, we use descriptive terms. We derive these terms from the person's behavior; for example, when we observe aggressive behaviors of an individual in a variety of situations, we may describe him as an aggressive person (17).

The review of the literature of the present study suggests that research on the five personality traits and ethical leadership is limited. Therefore, the purpose of this study was to determine the effect of five personality factors on ethical leadership. Accordingly, the proposed conceptual model of the study is presented in Fig. 1.
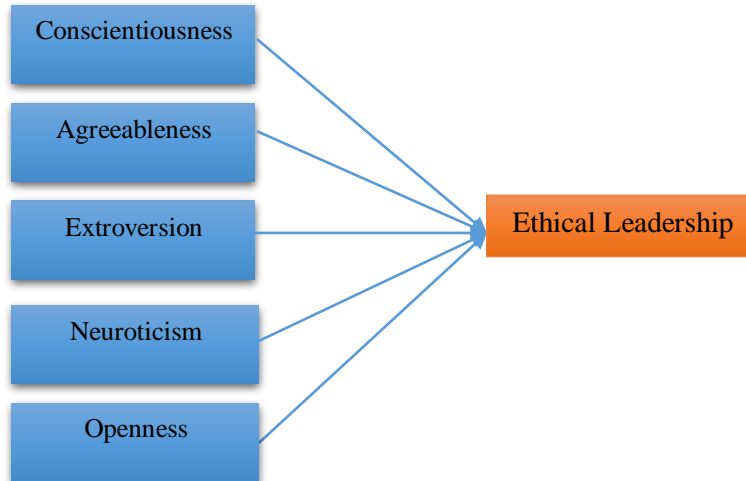

Fig. 1: Conceptual Model of Research

Materials & Methods

The design of this study is descriptive; whose scheme type is a correlational one. The statistical population of this research was all managers of companies and industrial centers based in indus-

trial towns of Hamadan province in 1396, with the total number of 660 people. In the sample selection process, a simple random sampling method, and to determine the sample size the Krejcie and Morgan tables, were used. So, the sample was created with the participation of 248

managers. The demographic characteristics of the respondents are summarized in Table 1 below.

In this study, two standard questionnaires were used to measure the variables. To measure ethical leadership, a standard 15-item questionnaire with three components was used. Which examines the dimensions of ethical leadership, including the sharing of power, fairness, and transparency of role based on the model of two researchers in the field of ethical leadership (5).

Reliability and validity of the above-mentioned tool was confirmed by two researchers, whose response scale is a 5-likert scale (1 = completely disagree to 5 = fully agree).

And also, to measure personality traits, the NEO-FFI questionnaire was used _ a 60-question questionnaire which is used to evaluate the main five personality factors (16).

The 5-choice responses of this questionnaire are based on the Likert scale (I completely disagree, disagree, indifferent, agree and totally agree). Va-

lidity of the questionnaire has been confirmed by the professors in this field. Also, the reliability of the research tool was tested using Cronbach's alpha; the results of this test are presented in Table 2, which indicate that the reliability of the research tool is appropriate. As shown in the table, the Cronbach Alpha for all variables is above 0.70 and is in an acceptable level.

Finally, with the help of Smart PLS software (version 2) and testing of measurement models (1-Reliability of the index: coefficients of factor loads, Cronbach alpha, combined reliability, common values, 2- convergent validity) also, for verifiable factor analysis of the variables, convergent validity was used. Where the values obtained for neuroticism, extroversion, openness, agreeableness and conscientiousness were 0.568, 0.543, 0.549, 0.604, 0.593, respectively, and for ethical leadership it was 0.523. Finally, using the Smart Equation Modeling algorithm, Smart PLS S2 software was used to analyze the data.

Table 1: Demographic characteristics of the sample group

Education		Age		Sex	
(high school) diploma	18	20-30	`14		
Associate Degree	25			male	202
Bachelor (B A)	150	30-40	46		
Masters' degree(M A) and higher	55	40-50	148		
		Above 50	40	female	46

Results

The investigation of fitting of the structural equation model is performed in three sections: 1. the measurement or exterior models Fig 2. The structural or internal models Fit, and 3. The general model Fit. To evaluate the fitting of measuring models in this study, the reliability and validity of the measurement models were examined.

One of the criteria that is controlled by measuring models is internal consistency. The traditional benchmark for this control is the Cronbachs Alpha. For confirmatory studies, this value should be greater than 0.7 (18). As Table 3 shows,

Cronbach's alpha value for all of the research variables is greater than 0.7, which indicates that the model has an appropriate reliability. The composite reliability (ϱc) of all reagents with the corresponding structure is used to determine the internal correlation of the measuring instrument. The appropriate stability value for each reagent is based on its corresponding structure and composite reliability is at least 0.7. Table 3 shows that all structures have a composite reliability of greater than 0.7, which shows fit for the measurement models. Also, convergent validity is used to fit the measurement models in PLS method. Some scholars consider 0.5 as suitable value of this cri-

terion (19). The results, indicated in Table 3, show that the convergence validity of all structures is higher than 0.5. So, after considering the fitting of measuring models, fitting the structural model of the research is achieved. To evaluate the structural model in this study, the significance coefficients Z (t-values), coefficient of determination (R^2), criterion, and redundancy coefficient were used. The significance coefficients of Z (t-values) to confirm a hypothesis or meaningfulness of the relationship at 95%, 99%, 99.9% are the least t values of: 1.96, 2.52, 3.32, respectively (19). As shown in Table 4, all significance coefficients of relationships are higher than 52.2 which has confirmed at 99% confidence level.

Table 2: Questions about the variables and the coefficient of reliability of each one

variable	related question	number of questions	reliability coefficient (Cronbach's alpha)
Ethical leadership	1-15	15	0.933
Neuroticism	16-27	12	0.807
Extraversion	28-39	12	0.847
Openness	40-51	12	0.872
Agreeableness	52-63	12	0.853
Conscientiousness	64-75	12	0.74

Table 3: Cronbach's alpha, Combined reliability, and Convergent validity

variable	composite reliability	Explained variance
Ethical leadership	0.942	0.523
Neuroticism	0.890	0.568
Extraversion	0.880	0.543
Openness	0.842	0.549
Agreeableness	0.863	0.604
Conscientiousness	0.830	0.593

Table 4: Significance coefficients Z (values of t values)

path	α	$Z\,\alpha/^2$	T
Neuroticism ➡ Ethical Leadership	0/05	1/96	2/35
Extroversion ➡ Ethical Leadership	0/05	1/96	0/350
Conscientiousness ➡ Ethical Leadership	0/001	3/32	3/499
Agreeableness ➡ Ethical Leadership	0/01	2/52	2/592
Openness ➡ Ethical Leadership	0/05	1/96	0/261

Table 5: Values of R^2, Index of Q^2, and Redundancy Ratio

dimension	predictor relation	coefficient of determination	Redundancy coefficient
Ethical Leadership	0.425	0.745	0.67

The basic criterion for evaluating is the coefficient of determination (R^2). The values of 0.67, 0.33 and 0.19 in the PLS route models the given endogenous variables are described as significant, moderate and weak, respectively (19). The value for all variables, as shown in Table 5, is strong, indicating a strong fit of the structural model. Another criterion for assessing the structural model is to examine the model's ability to predict. The dominant criterion for this prediction is the Stone and Geyser's Q^2 index.

The relative effect of predictive relation can be estimated by estimating Q^2. The values of 0.2, 0.15, and 0.35 indicate the relationship between small, medium, and large predictors of a given variable, respectively. Table 5 shows the Q^2 values of the intrinsic structures which indicate the strong predictive power of this model for all structures, and confirms the fit for the structural model.

In order to confirm or reject the hypotheses, standard coefficients and meaningful numbers have been used. The results from the conceptual model of research in two cases are shown by the significance coefficients and standard estimates in Table 6.

Table 6: Testing Hypotheses

path	path coefficients	T	P	Result
Neuroticism ➡ Ethical Leadership	-0.476	2.35	P <0.05	Confirmed
Extroversion ➡ Ethical Leadership	0.043	0.350	P <0.05	Rejected
Conscientiousness ➡ Ethical Leadership	0.673	3.499	P <0.001	Confirmed
Agreeableness ➡ Ethical Leadership	0.455	2.592	P <0.01	Confirmed
Openness ➡ Ethical Leadership	0.017	0.261	P <0.05	Rejected

In modeling with the least partial squares, for measuring the fitness of the model, three criteria are used: the quality of the model of measurement (external); the structural model (internal); and the general criteria of the model (GOF). Communality is used to evaluate the quality of all measurement models (external models). The redundancies average is the general criteria of the quality of the structural model (internal model) which is used for all the endogenous blocks. There is no criteria in the PLS path modeling to measure the whole model. Nevertheless, a general criterion for goodness of fit (GOF) is suggested by one of the experts.

This index takes both measurement and structural models into account, and serves as a criterion for predicting the overall performance of the model (18). This criterion is calculated as the geometric mean R^2 and the communality: three values of 0.1, 0.25 and 0.36 are introduced as weak, moderate and strong values for GOF respectively (19).

Table 7 shows the values for quality indexes for external, internal and overall models of research. With respect to the three values of 0.1, 0.25 and 0.36 as weak, moderate and strong values for GOF, the obtained value of 0.82 for GOF indicates a robust overall model fit for the present study.

Table 7: Quality indexes of the model

Model	index
(exterior) Model measure	0.73
Structural (internal) model	0.65
General model	0.48

Discussion

Few researches have investigated theoretical relationship between the character of leaders and their ethical leadership. And in the community and the context of Iranian culture, such a study has been done only once. As indicated in the findings section, all the criteria for model fit were desirable, and therefore the suggested pattern is validated. From this viewpoint, the highest correlation belongs to the relationship between conscientiousness and ethical leadership, and the least correlation belongs to the relationship between openness and ethical leadership. Our goal in this study was to investigate the relationship between the dimensions of the leader's personality and his/her ethical leadership. The results supported the hypothetical relationships. The results of the analysis based on the data of this study showed that neuroticism has a negative effect on ethical leadership and conscientiousness, agreeableness, openness and extraversion have a positive relationship with ethical leadership.

In various researches on patterns of leadership in literature, personality may have a particular dependence on understanding ethical leadership in particular. Ethical behavior must be fixed over time and in different situations so that the leader can develop and maintain the credibility of ethical leadership. Agreeableness, conscientiousness, and neuroticism are suggested as a personality background in the behavior of the ethical leader (3).

Supervisors' reports about their agreeableness and conscientiousness have been positively correlated with the results of the basic assessments of their ethical leadership behavior, but it should be noted that the field of work may also affect the ethical behavior of leaders. The results of the present study showed that neuroticism had a significant negative effect on ethical leadership. Previous studies have found contradictory results on the relationship between the levels of neuroticism of leaders and their ethical leadership; the results of this study provide further evidence that negative neuroticism is related to ethical leadership, and is in accordance with the results of research-

es (2, 20, 21, 3, 4, 7). Two scholars (22) also observed that military leaders with a high negative neuroticism effects are considered as indifferent and not adorable leaders by their supporters. Two experts (3) also suggested that a person with neuroticism is less likely to be perceived as an ethical leader because such people tend to be antagonistic to others. In addition, neuroticism is only weak in relation to ethical leadership (23). In this way, it is logical that leaders who have more neurotic behavior are likely to be at a lower level in ethical leadership. People with neuroticism are less recognized as role models, and role modeling is an important part of how ethical leaders affect employees (7). Neurotic nervous people are anxious, unstable, distressed and irritable. In general, people with neurological disorder are less considered as leaders (24). In their meta-analysis, Judge et al. (23) found neuroticism as a negative factor in relation to the emergence of leadership. Also, leaders with high neuroticism are anxious, depressed, and dependent and shy (25), and thus, such leaders are unlikely to be role models (26). In addition, some researchers (23) found that neuroticism is associated with low self-esteem and low self-efficacy. Social learning theory shows that people with low self-esteem and low self-efficacy have lower self-esteem in their abilities, and therefore are less perceived as patterns of role and less capable of guiding others.

Agreeableness was the other most important predictor of ethical leadership. As expected, agreeableness was positively correlated with ethical leadership. The results of this study are consistent with the researches (2, 3, 4, 7 and 27). Also, one of the experts (21) in his research received that the most effective factor among the five dimensions of personality on the ethical leadership is the agreeableness component. There are also similar empirical evidences showing that there is a significant relationship between agreeableness with other leadership styles. For example, two researchers (28) reported that among predictors of different personalities, agreeableness has the greatest impact on the various dimensions of transformational leadership.

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Agreeableness shows kindness desires, decency, dignity, honesty, altruism, and intimateness (25). Leaders with agreeableness maintain a high level of social relationships (29). Also, they are sensitive to the needs of their subordinates. Ethical leaders have been described as sympathizer, loving, and interested in the comfort of the staff, and so it is expected that the relationship of agreeableness with ethical leadership to be positive (1, 30). Individuals with agreeableness are described as sympathetic to others. This means that leaders with high-level agreeableness may behave with fair and respectful to their employees and try not to violate these positive characteristics. Also, the simplicity and trust of a leader makes it easier to transfer and share sensitive information, which means that adaptive leaders are more likely to share their power. Also, due to their sympathetic and permeable characteristics, leaders with high levels of agreeableness are expected to be able to justify their decisions for their employees (6). Despite the impact of agreeableness on improving our social relationships, we do not expect a link between agreeableness and role transparency. Role transparency is a task related to leadership behavior. Individuals with agreeableness focus on communication aspects more (16). These individuals are overly compatible and therefore able to adjust their behavior in an effort to match with others (31), and therefore we do not expect the agreeableness to be relevant to clarification.

Research literature shows that for ethical leadership, agreeableness is important because agreeableness -oriented individuals tend to be kind, concerned about others, and to be intimate with them, and ethical leaders seem to be careful, altruist and interested in welfare of their staff (3).

As expected, conscientiousness had one of the strongest correlations with ethical leadership in this research. Conscientious people are trustworthy, responsible and task-oriented, and this is related to the ethical behaviors of leaders. Such leaders communicate transparently and clarify roles, expectations, and performance goals. So subordinates know what bases will judgments be on and understand what is needed to succeed in the work. The conscientiousness has shown a significant variance in role explanation. Conscientiousness shows the tendency to follow behavioral norms, discipline, and policies (16). In this way, leaders with high levels of conscientiousness are more likely to follow the rules and do the things transparently. In addition, people with high conscientiousness prefer individual responsibility (32). The combination of accountability and transparency is likely to be interpreted by the precise attention of leaders to clarifying responsibilities and demands, so employees understand what happens and know what they are expected to do. The conscientious people consider sharing information related to others with them, as a part of their duty (6). Similarly, two researchers (33) found that leaders with high levels of conscientiousness were expected to convey important information to their employees. In this way, conscientiousness is likely to be positively related to the role transparency. The results obtained in this study are consistent with the results of the researches (2, 3, 4, 7, 21 and 27).

Among the five-factor personality structures, conscientiousness has been a common feature in work psychology (26). Volunteers experience a high degree of moral commitment; they are typically regular, responsible, and trustworthy. These tendencies indicate that the relationship between conscientiousness and behavioral patterns is essential for a leader to be understood as an ethical one. Several researchers (2) also claimed that ethical leadership behaviors including; openness, integrity, reliability, and honesty are components of conscientiousness characteristics. In addition, since they are goal-oriented, and have detailed views, conscientious leaders may establish the most transparent principles and standards for communicating ethical behavior with their subordinates (3).

Conscientiousness consists of two main aspects: being reliable, complete, responsible, accountable, and disciplined, and being successful in showing the ability to work hard and confront challenges (25, 34 and 35). Individuals with high levels of conscientiousness think carefully before they act, and are loyal to their moral obligations

and perceived responsibilities (36). It is about leaders who must be perceived as ethical. Ethical leaders behave seamlessly, set clear guidelines for proper behavior, and determine what they expect from employees, so conscientiousness is expected to have a positive relationship with ethical leadership (2, 5).

As expected, openness and extroversion did not have a significant relationship with ethical leadership. And the relationship between the two components was not meaningful in relation to ethical leadership. This finding coincides with the results of the researches (2, 3, 7 and 21). In their meta-analysis, two researchers (26) found that out of five personality traits, extraversion has the most relevance with transformational leadership. In this study, from among the five attributes, conscientiousness and agreeableness are more in relation with the behavior of the ethical leader. Given these findings, it seems that the characteristics of different characters for different leadership styles are of particular importance, and these different relationships with the main features reinforce the argument that ethical leadership and transformational leadership are significantly different (3, 7). Experts do not suggest the relationship between ethical leadership and openness or extraversion, because they regard these personality traits as more relevant to the charismatic notion which is not part of the structure of ethical leadership.

They believe that a leader can be highly extrovert or have a high degree of openness, but these are completely separate from ethical considerations. Our results partly confirm this proposition, because the findings show that there is no relationship between extraversion and ethical leadership. On the other hand, the results show that there is a positive and significant relationship between openness and ethical leadership. This is acceptable because, in order to develop themselves and their organizations morally, leaders must be open to changes, they must create new structures and procedures that change immoral habits. They should respect new ideas and evaluate them equally no matter where they come from.

Future research can use longitudinal design to study the role of attributes in developing ethical leadership over time. Future research can also examine the role of particular strengths of the present study, especially conscientiousness and agreeableness, with ethical leadership. More research on the predictors of ethical leadership can also address ethical features such as irregularity and responsibility. For example, two experts (5) found that the personal concern of leaders about social responsibility is positively related to fair and ethical behavior and role transparency. Also, the honesty and humility are proposed as the sixth dimension of personality. This dimension involves an aspect of integrity that may take shape before ethical leadership. We determined the effect of five personality traits on ethical leadership, but future studies can identify other personality traits that may have relationships with ethical leadership, as well as other mediating and moderating variables, to clarify the relationship between ethical leadership and personality attributes. However, the current study had limitations and has not responded to some of the questions that require further research. First, the sample size was small and limited to companies located in the industrial towns of Hamadan. Future researches can use larger samples and expand the study area to include other industries and locations. Second, the tool used to measure ethical leadership was designed for samples of non-Iranian culture. It is suggested that future researches seek to develop a tool based on the Iranian-Islamic context.

Conclusion

In various researches on patterns of leadership in literature, personality may have a particular dependence on understanding ethical leadership in particular. Ethical behavior must be fixed over time and in different positions so that the leader can develop and maintain the credibility of ethical leadership. Agreeableness, conscientiousness, and neuroticism are suggested as a personality background in the behavior of the ethical leader (3).

Supervisors' reports about their agreeableness and conscientiousness have been positively correlated with the results of the basic assessments of their ethical leadership behavior, but it should be noted that the field of work may also affect the ethical behavior of leaders. Brown and Trevino (4) suggested that ethical leadership becomes more relevant to followers in ethical morality, and differences in social ethical processes in organizations may change individuals with similar personality traits in ethical leadership in their professions. Our goal in this study was to investigate the relationship between the dimensions of the leader's personality and ethical leadership. The results supported the hypothetical relationships. The results of the analysis based on the data of this study showed that neuroticism has a negative effect on ethical leadership. Conscientiousness, agreeableness, openness and extraversion have a positive and significant relationship with ethical leadership. The strength of the present study is the use of structural equation modeling.

Acknowledgements

Ethical considerations

In this research, by citations and introducing the sources used, the ethical principle of scientific trustworthiness and respect for the intellectual rights of the authors of the works is considered respectable. In this study, the ethical principles of informed consent, privacy, anonymity of respondents and confidentiality of information about the subjects of research have been observed.

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