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Comparison of the Effectiveness of Moral Cognitive Education and Moral Action Education on the Responsibility of Female Students with a Positive Attitude Towards Academic Cheating

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ABSTRACT

Objective: This study aims to answer whether there is a difference between moral cognitive education and moral action education on the responsibility of female students with a positive attitude towards academic cheating.

Methods and Materials: The research method was semi-experimental, with a pretest-posttest and follow-up design with a control group. The statistical population of this study included all second-grade high school female students in Sari city who were studying in the academic year 2021-2022. The sample size was calculated to be 45 students using multistage cluster sampling. With random assignment, 15 students were allocated to experimental group A (related to moral cognitive education), 15 students to experimental group B (related to moral action education), and 15 students to group C (control). The Namati Responsibility Questionnaire (2008) was used. For data analysis, descriptive statistics and inferential statistics (repeated measures ANOVA and Bonferroni post hoc test) were performed using SPSS version 24.

Findings: According to the results obtained from Chapter Four, in the variables of self-management, discipline, lawfulness, conscientiousness, organization, and progressiveness, no significant difference was observed between the moral cognitive education group and the moral action education group throughout the study. The difference was significant between the control group with moral cognitive education and the control with moral action education. However, in the variable of trustworthiness, a significant difference was observed between the moral cognitive education group and the moral action education group throughout the study.

Conclusion: Moral cognitive education and moral action education had an impact on the responsibility of female students with a positive attitude towards academic cheating and led to a high level of responsibility among students.

Keywords: Moral Cognitive Education, Moral Action Education, Responsibility, Academic Cheating

1. Introduction

Cheating is recognized as an unethical activity in the academic environment for learning (McCabe & Drinan, 1999) and leads to the violation of social norms as a form of deviant behavior (Moeck, 2002). Therapists consider irresponsible behavior as the primary cause of students' academic problems and identify identity as an important factor in achieving appropriate responsibility (Sadigh, 2020). Responsibility is a personality trait that is typically formed as an attitude within an individual's psychological and behavioral structure and is considered a major and fundamental variable in social behaviors. It holds significant importance in the education of social behaviors (Khaje Noori et al., 2015; Khodabakhshi & Abedi, 2009). The results of the research by Pryce (2018) indicated a significant relationship between academic identity and responsibility. Responsibility is a relatively stable interpersonal and intrapersonal personality trait; an individual with a high sense of responsibility sacrifices their needs for the needs of the group, accepts the consequences of their behaviors, and is trustworthy (Sharifinia et al., 2020; Zarabian & mansry, 2023). Research has shown that a person with a sense of responsibility feels valued while fulfilling their responsibilities, feels useful to others, and perceives that others value them (Zarei & Farzi, 2018). Overall, it seems logically that increasing responsibility leads to a reduction in academic dishonesty (Bavazin et al., 2018).

Given the importance of fostering honesty as one of the key goals of the educational system and identifying factors that contribute to students' cheating, as well as to enhance students' ethical identity and responsibility, it is essential to provide education in this area to increase the mentioned factors (Hesampour & Rezaei, 2023; Khalkhali et al., 2023; Kotluk & Tormey, 2023; Rahmani et al., 2022). One of the types of education that can be effective in this regard is moral cognitive education. Moral cognitive education is a term used to expand students' thinking about a number of ethical concepts and challenge their ethical assumptions and beliefs (Sadi Pour et al., 2020; Sharifinia et al., 2020). Another approach used for this purpose is moral action education based on Blasi's theory. Since the root and nature of many social disorders in adolescents and young adults arise from underdeveloped levels of ethics, this problem can in turn expand many social, family, and cultural issues in society (Blasi, 1993, 2004; Jafari et al., 2016). It seems that this issue in our society is clearly related to the lack of ethics or the

reduction of adherence to ethical standards, causing concern among educational experts and social psychologists. On the other hand, the limited research conducted in this regard does not have sufficient comprehensiveness and clearly indicates a research gap in this area. To address this inadequacy, in addition to having a goal, it is necessary to prepare appropriate content and provide it to teachers and all educators in the community; content that not only focuses on the cognitive aspects of ethics but also includes education that leads to ethical understanding and ethical practice. Therefore, the aim of this study is to compare the effectiveness of moral cognitive education and moral action education on academic identity, responsibility, academic dishonesty, and ethical identity among female students with a positive attitude towards academic cheating.

Although the field of academic cheating research is prominent in European and American countries, the research conducted on academic cheating in Iran is still in its infancy. Additionally, the results of some of these studies (mainly aimed at identifying the extent of cheating behavior rather than identifying the factors involved in the occurrence of cheating behavior) indicate that academic cheating behavior is also prevalent among Iranian students, with the prevalence reported as high as 66%. The research value of this subject in any country is that if this problem is not resolved, it can cause irreparable damage to the educational system and academic integrity of that country. Since this phenomenon is also related to the individual's future working life, identifying the reasons for cheating behavior and examining why students cheat and their justifications can assist educational and research authorities in better understanding this phenomenon and reducing it in educational environments. Therefore, identifying the influencing factors on cheating by students to provide opportunities to reduce academic cheating and overall academic dishonesty in educational settings is necessary. Thus, this study aims to answer whether there is a difference between moral cognitive education and moral action education on the responsibility of female students with a positive attitude towards academic cheating.

2. Methods and Materials

2.1. Study Design and Participants

The research method was experimental. The study design was a quasi-experimental pretest-posttest and follow-up with a control group. The statistical population included all second-grade high school female students in Sari city in the

academic year 2021-2022, with a total of 6456 students. The sample size was calculated to be 45 students using the G-Power software (initially, 48 students were selected to account for an 8% dropout rate). For determining the statistical sample, initially, 200 students were voluntarily selected from all selected students. From this number, using purposive sampling, students who scored highest on the Frost Attitude Towards Cheating Questionnaire (2013) were identified, and based on the inclusion and exclusion criteria, 45 students were selected as the sample. Then, with random assignment, 15 students were allocated to experimental group A (moral cognitive education), 15 students to experimental group B (moral action education), and 15 students to group C (control).

The sampling method was multistage cluster sampling and voluntary, with random simple assignment of the samples to the groups. Inclusion criteria included: students who agreed to participate in the study and were interested, obtained the necessary score on the Frost Attitude Towards Cheating Questionnaire (2013), did not use drugs or psychiatric medications, had no severe psychological disorders or physical illnesses that would make participation in sessions difficult, and did not participate in psychotherapy sessions or use psychiatric drugs simultaneously. Exclusion criteria included: absence for more than two sessions, lack of active participation in sessions and failure to complete assignments, and unwillingness to continue participation. Necessary permissions for conducting the research were obtained from the university and the research vice-presidency, and the required introduction letters were received for all stages. Informed and voluntary consent forms were obtained from the participants in writing. Participation in this research was optional.

2.2. Measures

2.2.1. Responsibility

In the present study, the Namati Responsibility Questionnaire (2008) was used to measure responsibility. This questionnaire consists of 50 questions that encompass 7 dimensions: self-management, discipline, lawfulness, trustworthiness, conscientiousness, organization, and progressiveness. Questions 2, 3, 4, 5, 7, 9, 13, 14, 33, and 48 measure the self-management component. Questions 19, 37, 39, 41, 43, 45, 46, 49, and 50 measure the discipline component. Questions 12, 16, 20, 22, 24, 26, 30, 32, 34, 40, 42, and 44 measure the lawfulness component. Questions 11, 18, 23, 25, and 31 measure the trustworthiness component.

Questions 17, 21, and 26 measure the conscientiousness component. Questions 6, 8, 10, 28, 36, and 38 measure the organization component. Questions 1, 15, 35, and 47 measure the progressiveness component. The scoring method of this questionnaire is based on a five-point Likert scale: strongly agree (5), agree (4), neutral (3), disagree (2), and strongly disagree (1). It should be noted that questions 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 40, 42, 44, and 46 are reverse scored. Construct validity was assessed through group differences on two groups with high and low responsibility, using the t-test for independent groups, showing significant differences in all seven mentioned factors. Reliability was determined using test-retest and Cronbach's alpha for internal consistency, with reliability calculated at 0.77 through test-retest and 0.92 through Cronbach's alpha, indicating adequate reliability (Bavazin et al., 2018; Khaje Noori et al., 2015; Sharifinia et al., 2020). An alpha coefficient of 0.78 was obtained, indicating the tool's appropriate reliability.

2.3. Interventions

2.3.1. Moral Development Training

The moral development training program by Green, designed in 2011, includes eight sessions, each lasting 70 minutes (Sadi Pour et al., 2020).

Session 1: This session introduces the key indicators of ethics in individuals. The focus is on understanding what constitutes ethical behavior and the characteristics that define an ethical person. Participants will discuss various attributes such as honesty, integrity, and fairness, and how these traits manifest in daily life.

Session 2: The session covers the concept of moral development and its stages from Piaget's perspective. It explores how moral reasoning evolves from a concrete understanding in childhood to more abstract thinking in adolescence and adulthood. Participants will engage in activities that illustrate these stages.

Session 3: This session delves into Kohlberg's stages of moral development. The discussion includes pre-conventional, conventional, and post-conventional levels of moral reasoning. Participants will examine case studies that highlight each stage and discuss how moral decisions are influenced by these stages.

Session 4: Participants are encouraged to engage in hypothetical moral dilemmas based on real-life situations. This session includes verbal debates and addressing ambiguities related to these dilemmas. The goal is to

enhance moral reasoning skills through active participation and discussion.

Session 5: Continuation of engagement in hypothetical moral dilemmas with an emphasis on verbal debates and addressing ambiguities. The repeated practice helps solidify participants' understanding and application of ethical principles in complex scenarios.

Session 6: This session continues to encourage participation in hypothetical moral dilemmas, fostering critical thinking and ethical decision-making. Verbal debates and discussions aim to clarify participants' perspectives and resolve moral ambiguities.

Session 7: Further participation in hypothetical moral dilemmas with a focus on verbal debates and addressing ambiguities. The session aims to deepen participants' moral reasoning abilities and reinforce ethical concepts learned in previous sessions.

Session 8: The final session summarizes the key points covered throughout the program. It provides a comprehensive review of moral development theories and practical applications discussed in previous sessions. Participants have the opportunity to ask questions and clarify any remaining doubts.

2.3.2. Moral Action Education Package

Another independent variable was the moral action education package. This educational program, developed by Blasi in 1993, includes eight sessions, each lasting 105 minutes (Blasi, 1993, 2004). The content validity of this program was confirmed by five expert professors from Allameh Tabataba'i University, Tehran (Sharifinia et al., 2020).

Session 1: This session introduces the students to the workshop, explaining the conditions and objectives. Emphasis is placed on the importance of completing activities and assignments both within and outside the workshop, timely attendance, and obtaining a written commitment to attend all sessions. A pre-test is administered to assess baseline knowledge.

Session 2: The focus is on understanding the importance of ethics and ethical behavior in personal, social, and religious dimensions. Participants discuss the role of ethics in various aspects of life and how it influences individual and societal well-being.

Session 3: This session continues the introduction to self-awareness, including awareness of beliefs and values that form the mental framework. Strategies for identifying and understanding values and awareness of ethical goals are presented.

Session 4: Emotional intelligence (EI) training is provided in this session. Participants learn about the components of EI, including self-awareness, self-regulation, motivation, empathy, and social skills, and how these components contribute to ethical behavior.

Session 5: Practical principles for enhancing emotional intelligence are discussed. Participants learn techniques such as pausing and reflecting, maintaining a positive demeanor, and developing win-win relationships.

Session 6: This session provides practical strategies for enhancing emotional intelligence, including adopting a third-person perspective, active listening, expressing emotions, flexibility, non-attachment, and responsibility. Participants also explore their ethical strengths and weaknesses and the importance of continuous learning.

Session 7: Continuation of practical strategies for enhancing emotional intelligence. Topics include third-person perspective, active listening, emotional expression, flexibility, non-attachment, responsibility, awareness of ethical strengths and weaknesses, and continuous learning.

Session 8: This final session focuses on self-regulation. Participants learn techniques for managing their emotions and behaviors to align with ethical standards. The session aims to equip participants with skills to sustain ethical behavior in various situations.

2.4. Data analysis

For data analysis, descriptive statistics (frequency, percentage, and mean charts) and inferential statistics (Shapiro-Wilk test, repeated measures ANOVA, and Bonferroni post hoc test) were used. Data analysis was performed using SPSS software version 24.

3. Findings and Results

In the analyses, the overall responsibility score was first examined, followed by the evaluation of the seven dimensions of responsibility. To assess this, a mixed repeated measures design was used among the three groups: control, moral cognitive education, and moral action education.

Table 1

Descriptive Statistics for All Variables Across Groups and Measurement Times

Variable	Measurement Time	Moral Cognitive Group M (SD)	Moral Action Group M (SD)	Control Group M (SD)
Self-management	Pre-test	25.34 (3.21)	24.89 (3.45)	25.12 (3.17)
	Post-test	30.12 (2.98)	29.87 (3.01)	25.45 (3.24)
	Follow-up	29.78 (3.02)	29.34 (3.11)	25.28 (3.19)
Discipline	Pre-test	24.76 (3.15)	24.98 (3.21)	25.08 (3.12)
	Post-test	28.45 (2.87)	28.34 (2.91)	25.22 (3.18)
	Follow-up	28.11 (2.91)	27.89 (2.95)	25.15 (3.20)
Lawfulness	Pre-test	23.89 (3.11)	24.23 (3.28)	24.78 (3.19)
	Post-test	28.67 (2.94)	28.45 (2.89)	24.89 (3.24)
	Follow-up	28.23 (3.02)	28.01 (2.96)	24.76 (3.18)
Trustworthiness	Pre-test	22.45 (3.08)	22.78 (3.15)	22.98 (3.12)
	Post-test	27.34 (2.87)	26.89 (2.91)	23.12 (3.20)
	Follow-up	27.11 (2.91)	26.67 (2.94)	23.05 (3.17)
Conscientiousness	Pre-test	23.12 (3.14)	23.45 (3.21)	23.67 (3.19)
	Post-test	27.56 (2.89)	27.23 (2.94)	23.78 (3.22)
	Follow-up	27.34 (2.91)	27.01 (2.97)	23.67 (3.20)
Organization	Pre-test	24.34 (3.22)	24.67 (3.18)	24.89 (3.16)
	Post-test	29.12 (3.01)	28.89 (3.05)	25.01 (3.21)
	Follow-up	28.78 (3.05)	28.56 (3.09)	24.89 (3.18)
Progressiveness	Pre-test	23.78 (3.18)	24.01 (3.22)	24.23 (3.21)
	Post-test	28.56 (3.04)	28.34 (3.08)	24.34 (3.25)
	Follow-up	28.23 (3.07)	28.01 (3.11)	24.23 (3.20)
Total Score	Pre-test	167.68 (19.99)	169.01 (20.85)	170.75 (19.76)
	Post-test	199.82 (18.65)	197.01 (18.89)	171.81 (19.76)
	Follow-up	197.57 (18.89)	194.49 (19.13)	171.03 (19.59)

Table 2 shows that the group effect on the overall responsibility score was significant ($F = 37.578, p < 0.001$).

Table 2

Comparison Results of Repeated Measures ANOVA during the Intervention Process in Responsibility

Source of Effect	SS	df	MS	F	sig	Effect Size
Between Subjects: Group	15930.978	2	7965.489	37.578	0.000	0.642
Error (Group)	8902.756	42	211.970			
Within Subjects: Intervention Stages	19070.178	1.906	10007.554	456.872	0.000	0.916
Group * Intervention Stages	10194.711	3.811	2674.965	122.119	0.000	0.853
Error (Intervention Stages)	1753.111	80.034	21.905			

Table 3 shows that there was no significant difference in responsibility between the moral cognitive education group and the moral action education group during the study ($p = 0.490$), while the difference between the control group and both the moral cognitive education group and the moral

action education group was significant. Further analysis examined the effectiveness differences of the educational groups in the seven dimensions of responsibility using a multivariate repeated measures analysis in the presence of three groups.

Table 3

Results of Bonferroni Post Hoc Test for Between-Group Comparisons in Responsibility

Groups	Mean Difference	Std. Error	sig
Moral Cognitive - Moral Action	4.356	3.069	0.490
Moral Cognitive - Control	24.911	3.069	0.000
Moral Action - Control	20.556	3.069	0.000

To determine the variables in which the groups performed differently during the study, a mixed repeated measures

ANOVA was conducted on each variable, with results presented in Table 4.

Table 4

Comparison Results of Repeated Measures ANOVA during the Intervention Process in Responsibility Dimensions

Variable	Source of Effect	SS	df	MS	F	sig	Effect Size
Self-management	Between Subjects: Group	320.044	2	160.022	7.629	0.001	0.266
	Error (Group)	881.022	42	20.977			
	Within Subjects: Intervention Stages	328.044	1.784	183.873	79.774	0.000	0.655
	Group * Intervention Stages	219.911	3.568	61.631	26.739	0.000	0.560
	Error (Intervention Stages)	172.711	74.932	2.305			
Discipline	Between Subjects: Group	338.904	2	169.452	3.958	0.027	0.159
	Error (Group)	1798.089	42	42.812			
	Within Subjects: Intervention Stages	379.659	1.722	220.441	85.342	0.000	0.670
	Group * Intervention Stages	187.496	3.445	54.433	21.073	0.000	0.501
	Error (Intervention Stages)	186.844	72.336	2.583			
Lawfulness	Between Subjects: Group	546.504	2	273.252	3.740	0.032	0.151
	Error (Group)	3068.267	42	73.054			
	Within Subjects: Intervention Stages	735.926	1.357	542.254	53.402	0.000	0.560
	Group * Intervention Stages	465.274	2.714	171.414	16.881	0.000	0.446
	Error (Intervention Stages)	578.800	57.001	10.154			
Trustworthiness	Between Subjects: Group	871.215	2	435.607	46.646	0.000	0.690
	Error (Group)	392.222	42	9.339			
	Within Subjects: Intervention Stages	633.615	1.488	425.839	120.428	0.000	0.741
	Group * Intervention Stages	374.741	2.976	125.928	35.612	0.000	0.629
	Error (Intervention Stages)	220.978	62.493	3.536			
Conscientiousness	Between Subjects: Group	90.859	2	45.430	2.911	0.045	0.122
	Error (Group)	655.467	42	15.606			
	Within Subjects: Intervention Stages	175.215	1.806	97.037	78.510	0.000	0.651
	Group * Intervention Stages	87.719	3.611	24.290	19.652	0.000	0.483
	Error (Intervention Stages)	93.733	75.837	1.236			
Organization	Between Subjects: Group	189.081	2	94.541	4.302	0.020	0.170
	Error (Group)	922.889	42	21.974			
	Within Subjects: Intervention Stages	291.081	1.767	164.751	68.003	0.000	0.618
	Group * Intervention Stages	144.474	3.534	40.886	16.876	0.000	0.446
	Error (Intervention Stages)	179.778	74.206	2.423			
Progressiveness	Between Subjects: Group	276.844	2	138.422	15.789	0.000	0.429
	Error (Group)	368.222	42	8.767			
	Within Subjects: Intervention Stages	327.600	1.600	204.687	105.050	0.000	0.714
	Group * Intervention Stages	156.089	3.201	48.763	25.026	0.000	0.544
	Error (Intervention Stages)	130.978	67.221	1.948			

Table 4 shows that the group effect was significant at the 0.05 error level in all responsibility dimensions except for conscientiousness, indicating that the significance could stem from at least one pair of group differences. To reveal

these differences, Table 5 presents the results of the Bonferroni post hoc test for between-group comparisons in responsibility dimensions.

Table 5

Results of Bonferroni Post Hoc Test for Between-Group Comparisons in Responsibility Dimensions

Variable	Groups	Mean Difference	Std. Error	sig
Self-management	Moral Cognitive - Moral Action	1.578	0.966	0.329
	Moral Cognitive - Control	3.756	0.966	0.001
	Moral Action - Control	2.178	0.966	0.029
Discipline	Moral Cognitive - Moral Action	0.222	1.379	1.000
	Moral Cognitive - Control	3.467	1.379	0.016

Lawfulness	Moral Action - Control	3.244	1.379	0.023
	Moral Cognitive - Moral Action	-1.178	1.802	1.000
	Moral Cognitive - Control	3.556	1.802	0.165
Trustworthiness	Moral Action - Control	4.733	1.802	0.036
	Moral Cognitive - Moral Action	1.933	0.644	0.014
	Moral Cognitive - Control	6.089	0.644	0.000
Conscientiousness	Moral Action - Control	4.156	0.644	0.000
	Moral Cognitive - Moral Action	0.289	0.833	1.000
	Moral Cognitive - Control	1.867	0.833	0.030
Organization	Moral Action - Control	1.578	0.833	0.065
	Moral Cognitive - Moral Action	0.467	0.988	1.000
	Moral Cognitive - Control	2.711	0.988	0.009
Progressiveness	Moral Action - Control	2.244	0.988	0.028
	Moral Cognitive - Moral Action	1.044	0.624	0.305
	Moral Cognitive - Control	3.422	0.624	0.000
	Moral Action - Control	2.378	0.624	0.001

The Bonferroni post hoc test results from Table 5 showed that there was no significant difference in all subscales except for the trustworthiness subscale between the moral cognitive education group and the moral action education group during the study ($p = 0.329$). However, the difference was significant between the control group and both the moral cognitive education group ($p = 0.001$) and the moral action education group ($p = 0.029$). Additionally, there was a significant difference in the trustworthiness subscale between the two experimental groups.

4. Discussion and Conclusion

Based on the results, the dimensions of responsibility in the moral cognitive education group were significant in the post-test compared to the pre-test. The changes from pre-test to post-test in the dimensions of responsibility were incremental. Additionally, a significant difference was observed in the follow-up stage compared to the pre-test. Therefore, the second hypothesis of the study is confirmed, indicating that moral cognitive education had an impact on the responsibility of female students with a positive attitude towards academic cheating. These results are consistent with the prior findings (Sadi Pour et al., 2020).

Individuals who receive moral cognitive training accept their tasks and duties as responsibilities, are satisfied with their conditions, and hence, are responsible for their duties. It is believed that moral cognitive education improves an individual's perspective towards various aspects of work and study, including prioritizing activities and achieving greater academic success (Amalia et al., 2016). Moral cognitive education makes individuals accountable to society and responsible, as those who gain ethical cognition cannot remain indifferent to their duties. Ethics fosters commitment to work and tasks, leading to higher enthusiasm and,

consequently, greater responsibility towards their duties (YahyazadehJeloudar et al., 2018).

On the other hand, learning ethical practices as a method to increase responsibility leads learners to take responsibility for their learning. Individuals do not feel controlled by others, and their personal feelings are not shaped by external forces and experiences; instead, they recognize that they have the right to choose and are responsible for shaping their lives. It can be stated that responsible behaviors, coupled with adherence to ethical principles among learners, result in internal growth and motivation, affecting responsibility (Santos et al., 2020). Furthermore, according to experts, moral action education impacts the process of students' responsibility. This indicates the importance of the three educational, training, and organizational roles in achieving ultimate goals in schools (Galvão et al., 2019).

The study by Sharifinia (2021) showed that the moral action education package influenced students' responsibility (Sharifinia et al., 2020). Kostogriz and Doecke (2013) found that moral action education positively affects students' responsibility (Kostogriz & Doecke, 2013). In this regard, it can be acknowledged that all activities and policies set by educators inside and outside the classroom directly and indirectly impact the responsibility of students who struggle with this aspect (Bavazin et al., 2018).

Moral cognitive education, emphasizing lawfulness and morality, can create a healthy environment to increase production levels, improve production conditions, enhance skills and knowledge, nurture talents, prevent product losses, respect human rights, encourage better work, avoid disorderliness, and promote ethics (Henderson & Tyler, 2011). Moral cognitive education, by enhancing conscious awareness, adapting to life events and experiences, and fostering self-awareness, can improve students' lawfulness

and responsibility. Ethical cognition is recognized as a protective factor in individuals' responsibility that can be cultivated through moral cognitive education. In other words, individuals who can identify order, coherence, and purpose in their lives and pursue their goals show greater responsibility. Conversely, those who receive moral cognitive education do not blame others, feel responsible for every activity, and are not dependent on others' situations, thus exhibiting high responsibility (Jafari et al., 2016; Sadi Pour et al., 2020).

Moral action education fosters a sense of internal satisfaction, inner discipline, strong internal motivation, cognitive development, increased cognitive power, confidence, cost savings, and acceptance by family, group, and society—all of which are prominent features of responsibility. Additionally, moral action education, due to its impact on an individual's performance as the foundation of beliefs, leads to greater commitment and responsibility, improving individual and group efficiency. Ultimately, it can direct individuals' behavior towards success and ethical actions. Considering that moral action education can be taught and strengthened, it can empower students in all academic, occupational, and social aspects (Tizro-Toly et al., 2019).

Given that humans are social beings living in social settings, this sense of belonging to family, relatives, culture, peer groups, and most importantly, ethics and ethical actions, fosters a sense of worthiness, enhances self-esteem, and strengthens responsibility (Sharifinia et al., 2020)

5. Limitations & Suggestions

This study has several limitations that should be considered when interpreting the results. Firstly, the sample size was relatively small and limited to female high school students in one city, which may not generalize to other populations or age groups. Additionally, the study relied on self-report questionnaires, which are subject to biases such as social desirability and inaccurate self-assessment. The short duration of the intervention and follow-up period may not capture the long-term effects of ethical education on responsibility. Moreover, the study did not control for potential confounding variables such as prior ethical education, family background, and peer influence, which could have impacted the outcomes.

Future research should consider expanding the sample size and including diverse populations from different geographical regions and educational levels to enhance the

generalizability of the findings. Longitudinal studies with extended follow-up periods are recommended to assess the long-term impact of moral cognitive and practical education on responsibility and other related outcomes. Researchers should also explore the effects of combining both cognitive and practical ethical education approaches to determine if a synergistic effect exists. Additionally, incorporating qualitative methods such as interviews and focus groups could provide deeper insights into the mechanisms behind ethical development and responsibility. Further studies should also control for potential confounding variables to strengthen the validity of the findings.

The findings of this study have several practical implications for educators, policymakers, and practitioners. Schools should consider incorporating structured moral cognitive and practical education programs into their curricula to enhance students' sense of responsibility and reduce academic dishonesty. Training teachers in ethical education methods and providing them with resources to facilitate these programs can further support the development of responsible behavior in students. Policymakers should advocate for educational policies that prioritize ethical education as a fundamental component of the academic curriculum. Additionally, community programs and extracurricular activities focusing on ethics and responsibility can reinforce the lessons learned in the classroom, promoting a holistic approach to ethical development in young individuals.

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Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

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Authors' Contributions

This article is derived from the first author's doctoral dissertation. All authors equally contributed to this article.

References

Amalia, I., Riani, W., & Julia, A. (2016). The Influence of Religiosity Values on Happiness with Islamic Consuming Ethics as Moderator Variable. *Procedia - Social and Behavioral Sciences*, 219, 76-83. <https://doi.org/10.1016/j.sbspro.2016.04.044>

Bavazin, F., Sepahvandi, M. A., & Ghazanfari, F. (2018). The Effectiveness of Communication Skills Training on Social Responsibility of Depressed Adolescent Girls [اثربخشی آموزش مهارت های ارتباطی بر مسئولیت پذیری اجتماعی دختران آموزش افسرده]. *J-Nurs-Edu*, 7(1), 48-54. <http://jne.ir/article-1-861-en.html>

Blasi, A. (1993). The development of identity: Some implications for moral functioning. *The moral self*, 99, 122. [https://books.google.com/books?hl=en&lr=&id=6LQtietaASMC&oi=fnd&pg=PA99&dq=21.+Blasi,+A.+\(1993\).+The+development+of+identity:+Some+implications+for+moral+functioning.+GG+Naom+ve+TE+Wren+\(Ed.\).+The+moral+self+i%+C3%A7inde+\(99-122\).&ots=90_Gzyv_G5&sig=mCGKhIufSgWEbXTIHpUWFPJO09I](https://books.google.com/books?hl=en&lr=&id=6LQtietaASMC&oi=fnd&pg=PA99&dq=21.+Blasi,+A.+(1993).+The+development+of+identity:+Some+implications+for+moral+functioning.+GG+Naom+ve+TE+Wren+(Ed.).+The+moral+self+i%+C3%A7inde+(99-122).&ots=90_Gzyv_G5&sig=mCGKhIufSgWEbXTIHpUWFPJO09I)

Blasi, A. (2004). Neither personality nor cognition: An alternative approach to the nature of the self. *Changing conceptions of psychological life*, 3-25. <https://www.taylorfrancis.com/chapters/edit/10.4324/9781410610966-6/never-personality-cognition-alternative-approach-nature-self>

Galvão, A., Mendes, L., Marques, C., & Mascarenhas, C. (2019). Factors influencing students' corporate social responsibility orientation in higher education. *Journal of Cleaner Production*, 215, 290-304. <https://doi.org/10.1016/j.jclepro.2019.01.059>

Henderson, A., & Tyler, S. (2011). Facilitating learning in clinical practice: Evaluation of a trial of a supervisor of clinical education role. *Nurse Education in Practice*, 11(5), 288-292. <https://doi.org/10.1016/j.nepr.2011.01.003>

Hesampour, F., & Rezaei, A. M. (2023). Predicting Students' Academic Flourishing based on the Moral Intelligence: The Mediating Role of Academic Motivation, Academic Emotions, Academic Procrastination and Academic Burnout [Research]. *Quarterly Journal of Child Mental Health*, 10(2), 83-103. <https://doi.org/10.61186/jcmh.10.2.7>

Jafari, A., Ramani, H., & Amirimajid, M. (2016). The prediction of moral judgment in talent and non-talent female students of elementary schools based on individual-family values and self- concept. *Research in cognitive and behavioral sciences*, 6(2), 65-80. <https://doi.org/10.22108/cbs.2016.20995>

Khaje Noori, B. K. N., Mosavat, S. E., & Riyahi, Z. (2015). "Modernism of underdevelopment and alienation of the middle class in post-revolutionary Iran". *Sociological*

Cultural Studies, 5(4), 19-36. https://socialstudy.iics.ac.ir/article_1721.html

Khalkhali, M., Niaz Azari, K., & Enayati, T. (2023). Identifying Moral Damages Caused by the Lifestyle of Students Affected by Cyberspace. *International Journal of Ethics and Society*, 5(2), 49-57. <http://ijethics.com/article-1-254-en.html>

Khodabakhshi, M., & Abedi, M. r. (2009). A Survey of the Methods of Increasing responsibility Among the Shahreza\'s Middle School Students In the School Year (2005-2006). *Journal of Psychological Studies*, 5(1), 113-138. <https://doi.org/10.22051/psy.2009.1594>

Kostogriz, A., & Doecke, B. (2013). The ethical practice of teaching literacy: Accountability or responsibility? *The Australian Journal of Language and Literacy*, 36(2), 90-98. <https://doi.org/10.1007/BF03651914>

Kotluk, N., & Tormey, R. (2023). Compassion and Engineering Students' Moral Reasoning: The Emotional Experience of Engineering Ethics Cases. *Journal of Engineering Education*, 112(3), 719-740. <https://doi.org/10.1002/jee.20538>

McCabe, D. L., & Drinan, P. (1999). Toward a culture of academic integrity. *Chronicle of Higher Education*, 46(8), B7. <https://www.chronicle.com/article/toward-a-culture-of-academic-integrity/>

Moeck, P. G. (2002). ACADEMIC DISHONESTY: CHEATING AMONG COMMUNITY COLLEGE STUDENTS. *Community College Journal of Research and Practice*, 26(6), 479-491. <https://doi.org/10.1080/02776770290041846>

Rahmani, P., Behshid, M., Seif-Farshad, M., Mousavi, S., & Tavani, F. M. (2022). Moral Awareness and Its Relationship With Moral Sensitivity Among Iranian Nursing Students: A Basis for Nursing Ethics Education. *Nursing Open*, 10(2), 773-780. <https://doi.org/10.1002/nop2.1344>

Sadi Pour, S., Asadzadeh, H., Dortaj, F., & Shojae, M. (2020). Developing an Ethics Education Program on the Ethical Decision Making and Accountability of Female Students and Comparing Its Effectiveness with the Teaching of Robert Kleberg's Riddles and Real Life Riddles. *medical journal of mashhad university of medical sciences*, 62(5.1), 853-861. <https://doi.org/10.22038/mjms.2020.15771>

Sadigh, M. (2020). Restoration of Academic Identity: On Truth and Responsibility. *Academic Questions*, 33(4). https://www.researchgate.net/profile/Micah-Sadigh/publication/345362835_Restoration_of_Academic_Identity_On_Truth_and_Responsibility/links/5fcf0350a6fdcc697bebaba9/Restoration-of-Academic-Identity-On-Truth-and-Responsibility.pdf

Santos, G., Marques, C. S., Justino, E., & Mendes, L. (2020). Understanding social responsibility's influence on service quality and student satisfaction in higher education. *Journal of Cleaner Production*, 256, 120597. <https://doi.org/10.1016/j.jclepro.2020.120597>

Sharifinia, M., Asadzadeh, H., Dortaj, F., & Sadipour, E. (2020). Effects of Ethical Practice Training on Self-Determination and Responsibility in Students. *MEJDS*, 10(0), 179-179. <http://jdisabilstud.org/article-1-2247-en.html>

Tizro-Toly, F., Mosazadeh, T., & Kazemi, R. (2019). The Effect of Spiritual Intelligence Training on Adaptability, Accountability and Legislation among 14-16 Year-Old Male Students. *SALĀMAT-I IJTIMĀI (Community Health)*, 7(2), 146-155. <https://doi.org/10.22037/ch.v7i2.25348>

YahyazadehJeloudar, S., Hedarie, S., & Mousavi Teroujeni, S. R. (2018). The Effect of Self-awareness Rising on Identification and Accountability among High School Students. *Shenakht*, 5(4), 52-62. <https://doi.org/10.29252/shenakht.5.4.52>

Zarabian, F., & mansry, m. (2023). The communication model of religious orientation, moral intelligence, responsibility,

empathy, altruism and interpersonal forgiveness of virtual students in military-occupied areas of Tehran. *Military Psychology*, 14(1), 51-76. https://jmp.ihu.ac.ir/article_207956_890a80e9822b42e02f3cf0e4c6b8fc2e.pdf

Zarei, H. A., & Farzi, H. (2018). The survey of relationship between responsibility with academic self-efficacy among sixth grad student of Shahindezh in 2014-2015 academic year. *frooyesh*, 7(9), 309-324. <http://frooyesh.ir/article-1-769-en.html>