

Examining the Impact of Moral Intelligence Training on the Social Skills Components of Young Female Elementary School Students

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ABSTRACT

Purpose: This study aimed to investigate the effect of moral intelligence training on the social skills components of young female elementary school students in Bandar Abbas City during the 2020–2021 academic year.

Methods and Materials: The research employed a quasi-experimental design with a pretest–posttest and control group. Two elementary schools were randomly selected in Bandar Abbas City to form the sample group. All students from these schools completed the Gresham and Elliott Social Skills Rating System (SSRS) questionnaire. From each school, 15 students with the lowest scores on the questionnaire were selected; one school was designated as the experimental group and the other as the control group. The experimental group received moral intelligence training across 11 sessions, each lasting two hours per week. After the intervention, both groups completed the social skills questionnaire again. Data were analyzed using multivariate analysis of covariance (MANCOVA).

Findings: The results demonstrated a significant improvement in the components of social skills—including cooperation, assertiveness, and self-control—among students in the experimental group compared to those in the control group ($p < .05$).

Conclusion: These findings indicate that moral intelligence training is effective in enhancing self-control and other social skill components in children.

Keywords: moral intelligence training, cooperation, assertiveness, self-control, female students

1. Introduction

Moral intelligence is increasingly recognized as a vital construct in understanding human behavior, moral reasoning, and social functioning, particularly among children and adolescents who are in the process of developing their social and emotional competencies (Prasertsin et al., 2024). Defined as the capacity to

distinguish right from wrong and to act based on universal ethical principles such as honesty, responsibility, compassion, and fairness, moral intelligence represents a higher-order integration of cognitive, emotional, and behavioral dimensions (Garrigan et al., 2018; Raisi et al., 2018). In recent years, scholars and educators have emphasized the role of moral intelligence as an essential element of holistic education that shapes moral character and

strengthens interpersonal relationships (Banda, 2025; Saleh, 2018). In the context of social development, moral intelligence provides the foundation for empathy, respect, and cooperation—traits that are critical for successful social adaptation during childhood.

The increasing complexity of modern societies, along with exposure to diverse social and moral challenges, has elevated the importance of moral intelligence as a core educational goal (Al-Adwan, 2022; Asif et al., 2020). As moral and ethical values form the backbone of human coexistence, cultivating moral intelligence from an early age can protect children from deviant behaviors and promote pro-social actions. According to Al-Adwan (2022), moral intelligence among kindergarten children is closely related to the development of social skills such as cooperation, empathy, and assertiveness. Similarly, Puspitasari et al. (2022) found that moral, emotional, and intellectual intelligences collectively shape students' civic responsibility and environmental awareness, indicating that moral intelligence does not operate in isolation but interacts dynamically with emotional and cognitive domains.

The emergence of moral intelligence as a distinct psychological construct can be traced to its differentiation from other forms of intelligence such as emotional and social intelligence. While emotional intelligence emphasizes understanding and regulating one's emotions, and social intelligence focuses on managing interpersonal relationships, moral intelligence concerns the ethical use of both in decision-making and behavior (Emmadi, 2017; Hollins, 2019). It is the internal compass that guides moral judgment and behavioral restraint even in the absence of external supervision (Tangney et al., 2018). Studies by Duckworth et al. (2016) and Smith et al. (2019) have highlighted that moral intelligence contributes significantly to the development of self-control, perseverance, and resilience—qualities that underpin psychological adjustment and social competence in children.

Furthermore, moral intelligence is not an innate trait but a learned and cultivated ability that can be developed through deliberate educational interventions (Rezapour et al., 2018; Saleh, 2018). Research indicates that structured moral education programs that integrate value-based discussions, role-playing, and problem-solving activities can significantly enhance students' understanding of moral principles and their capacity for ethical reasoning (Asif et al., 2020). Moral education programs have been successfully applied in various contexts to promote ethical awareness, reduce behavioral problems, and strengthen moral reasoning

(Öztürk et al., 2019; Prasertsin et al., 2024). For example, the development of moral intelligence scales for adolescents has allowed researchers to identify key indicators of moral awareness, empathy, and integrity, facilitating targeted interventions for moral growth (Khampa, 2019).

Moral intelligence also plays a crucial role in children's social and emotional development, influencing their interactions with peers and authority figures (Garrigan et al., 2018; Ornaghi et al., 2020). Children who develop moral understanding early in life are more likely to display pro-social behaviors such as cooperation, sharing, and helping others, and are less likely to engage in aggression or antisocial behavior (Raisi et al., 2018). According to Esmacili et al. (2021), parenting styles that promote emotional warmth, autonomy, and secure attachment foster moral and social development in children by modeling empathy and ethical behavior. This aligns with findings from Alhadabi et al. (2019), who demonstrated that parenting practices emphasizing moral instruction contribute to the formation of self-efficacy and intrinsic motivation, thereby strengthening adolescents' moral and academic outcomes.

Empathy, as a subcomponent of moral intelligence, plays a vital role in fostering ethical conduct. Empathetic individuals are capable of understanding others' emotional states and adjusting their actions accordingly, leading to more cooperative and compassionate interactions (Ornaghi et al., 2020). In early education, empathy-based moral training helps students recognize the consequences of their behaviors and enhances their emotional regulation capacities (Park & Dhandra, 2017). Moreover, the presence of empathy, fairness, and respect in classroom environments contributes to improved peer relationships and reduced social conflict (Wills et al., 2016). Empathy also underpins forgiveness and tolerance—two pillars of moral functioning that enable individuals to manage interpersonal disagreements constructively and maintain social harmony (Hollins, 2019).

Self-control, another key component of moral intelligence, is central to the regulation of impulses and maintenance of ethical conduct. Research in developmental psychology emphasizes that children who develop strong self-control are better able to delay gratification, resist temptations, and act in accordance with moral standards (Duckworth et al., 2016; Tangney et al., 2018). In this regard, self-control functions not merely as a behavioral skill but as a moral mechanism that governs integrity and accountability (Smith et al., 2019). The absence of self-control has been linked to impulsivity, aggression, and rule-

breaking behaviors, all of which undermine social cohesion (Wills et al., 2016). Consequently, educational programs aimed at strengthening moral intelligence often emphasize the training of self-regulation, emotional resilience, and decision-making skills (Rezapour et al., 2018).

The cross-cultural relevance of moral intelligence has been widely recognized in the literature, as moral behavior and ethical reasoning transcend cultural boundaries. Studies conducted in various educational settings—from Asian to Middle Eastern and Western contexts—consistently demonstrate the positive influence of moral intelligence on students' psychosocial adaptation and academic outcomes (Asif et al., 2020; Prasertsin et al., 2024; Puspitasari et al., 2022). For instance, Asif et al. (2020) compared the perceptions of university teachers in China and Pakistan, highlighting the need for moral education as an integral part of sustainable development. Similarly, Banda (2025) argued that modern educational systems must adapt pedagogical strategies to promote ethical decision-making and social responsibility among Generation Z students, who face complex moral dilemmas in a rapidly changing digital world.

Recent studies have also explored the intersection between moral intelligence and psychological constructs such as emotional intelligence, mindfulness, and social self-efficacy. For example, Park and Dhandra (2017) demonstrated that dispositional mindfulness enhances self-control and reduces impulsive behavior through improved emotional awareness, which in turn supports moral decision-making. Likewise, Xia (2025) found that moral identity moderates the relationship between socioeconomic status and prosocial behavior, emphasizing that individuals with stronger moral identities are more inclined to engage in socially beneficial acts even in the face of adversity. These findings underscore the intricate relationship between moral cognition, emotional regulation, and social functioning, suggesting that interventions targeting moral intelligence may yield broader psychological and social benefits.

Moreover, the scientific interest in moral intelligence has prompted the development of measurement instruments and theoretical models to better understand its structure and application (Khampa, 2019; Öztürk et al., 2019). Khampa (2019) introduced a standardized scale for moral intelligence, providing a psychometrically valid framework for assessing components such as integrity, empathy, and responsibility among students. Similarly, Öztürk et al. (2019) proposed a moral intelligence scale for clinical contexts, arguing that moral reasoning and empathy play

critical roles in healthcare ethics and professional conduct. These measurement tools have facilitated empirical investigations into how moral intelligence contributes to psychological adjustment, ethical sensitivity, and interpersonal competence across different age groups and cultural settings (Garrigan et al., 2018; Prasertsin et al., 2024).

The moral dimension of intelligence also extends beyond individual ethics to social and educational domains. Educational psychologists such as Saleh (2018) and Al-Adwan (2022) have highlighted the transformative power of moral education in shaping children's values, attitudes, and behaviors. They argue that teaching moral principles such as honesty, respect, and compassion from an early age not only builds individual character but also strengthens the moral fabric of society. In this sense, moral intelligence serves as both a personal and societal asset, cultivating citizens who can contribute positively to their communities (Alhadabi et al., 2019; Esmaceli et al., 2021).

Empirical evidence supports the view that moral intelligence training can significantly improve students' social skills and interpersonal functioning. For instance, Rezapour et al. (2018) demonstrated that moral intelligence interventions enhanced social performance and reduced behavioral problems among students. These findings were reinforced by Raisi et al. (2018), who showed that higher moral intelligence is associated with lower aggression and greater emotional regulation. Similarly, Prasertsin et al. (2024) developed and validated moral intelligence indicators for junior high school students, confirming that educational interventions targeting moral reasoning and empathy yield measurable improvements in students' moral conduct. The integration of moral intelligence into educational curricula thus represents a promising approach for fostering prosocial behavior and psychological well-being among children (Banda, 2025; Puspitasari et al., 2022).

At the theoretical level, moral intelligence aligns closely with developmental frameworks that emphasize moral reasoning, emotional regulation, and social cognition as interconnected domains (Garrigan et al., 2018; Tangney et al., 2018). It can be viewed as a higher-order construct that synthesizes cognitive understanding of moral principles with affective and behavioral dimensions of moral action (Wills et al., 2016). The integration of moral reasoning and emotional empathy allows individuals to make ethical decisions that are both principled and compassionate (Lişman & Holman, 2025). This balance between reason and

emotion is fundamental to moral maturity and contributes to interpersonal harmony and societal well-being.

In light of these theoretical insights and empirical findings, moral intelligence training emerges as an effective educational approach for enhancing children's moral reasoning, empathy, and social skills. Given the increasing moral challenges faced by young students in today's rapidly changing societies, equipping them with moral competencies can significantly enhance their self-regulation, cooperation, and assertiveness. Therefore, the present study aims to examine the effectiveness of moral intelligence training on improving the social skills components among young female elementary school students in Bandar Abbas City.

2. Methods and Materials

2.1. Study Design and Participants

The present study employed a quasi-experimental design, in which moral intelligence training served as the independent variable and self-restraint skills as the dependent variable. The research population consisted of all female elementary school students in Bandar Abbas City. Two schools were randomly selected from among the girls' primary schools in the city to form the study sample. All students in these two schools completed the Social Skills Rating System (SSRS) developed by Gresham and Elliott (1990). Subsequently, 15 students with the lowest scores on the questionnaire were selected from each school. One school was randomly assigned as the experimental group and the other as the control group.

After obtaining the necessary approvals and collaborating with the educational authorities in Bandar Abbas to select the study participants, two girls' primary schools were randomly chosen. All second-grade students in these schools were asked to complete the Gresham and Elliott Social Skills Questionnaire. Then, 15 students from each school with the lowest scores were selected (these scores served as pretest data). One school was randomly designated as the experimental group and the other as the control group.

Participants in the experimental group attended 11 moral intelligence training sessions over approximately six weeks, with two sessions per week, each lasting two hours. After the intervention, both groups completed the Gresham and Elliott Social Skills Questionnaire again, and these scores were treated as posttest data. The data were analyzed using multivariate analysis of covariance (MANCOVA). To address ethical considerations, the control group also

received moral intelligence training after the completion of the study. The moral intelligence training protocol was adapted from Rezapour, Kheradmand, and Shahedi (2018) and developed based on prior research and theoretical foundations in this field. The training consisted of 11 structured sessions, each lasting two hours and conducted twice weekly.

2.2. Measures

Social Skills Rating System (SSRS): The SSRS is a 39-item scale designed to measure key domains of social skills, including self-control, cooperation, empathy, and assertiveness. For example, item 11 ("I avoid doing things with others that may get me in trouble with adults") assesses both cooperation and self-control. The self-control subscale measures behaviors typically observed in conflict situations (e.g., responding appropriately to teasing) and in non-conflict contexts requiring patience or compromise. The cooperation subscale evaluates behaviors such as sharing materials and following rules. The empathy subscale measures behaviors that indicate concern and respect for others' feelings and perspectives. The assertiveness subscale assesses behaviors such as initiating conversations, introducing oneself, and requesting information. A total social skills score is calculated, ranging from 0 to 80. The SSRS uses a three-point Likert scale to rate the frequency of observed behaviors: 0 = "never occurs," 1 = "sometimes occurs," and 2 = "occurs very often." It was standardized on a sample of 4,170 students (grades 3–12) stratified by age, gender, geographic region, and disability status. The SSRS–Student Form (SSRS-SS) typically requires 5–10 minutes to complete. Internal consistency coefficients ranged from .85 to .91, and test–retest reliability was .87, indicating strong reliability (Gresham & Elliot, 1990). The content validity index was excellent, and the scale showed minimal floor and ceiling effects. After the removal of five original items, evidence supported both convergent and divergent validity. Factor analysis identified four subscales with satisfactory psychometric properties. In an Iranian validation study, Eslami et al. (2014) reported good internal consistency ($\alpha = .89$) and temporal stability ($r = .91$) (Eslami et al., 2014). In the present study, the Cronbach's alpha coefficient for the SSRS was .72, confirming acceptable reliability.

2.3. Intervention

The moral intelligence training program consisted of 11 structured sessions conducted twice a week, each lasting

approximately two hours. The first session introduced participants to the objectives, group rules, and expectations, emphasizing active participation. In the second session, the concept of respect was defined, focusing on the “golden rule” of treating others as one wishes to be treated and addressing the social consequences of disrespect. The third session explored kindness, its role in relationships, and common cognitive errors that undermine it. The fourth session centered on empathy, highlighting its importance through active listening exercises and relationship-based examples. In the fifth session, conscience was introduced as a guiding principle in interpersonal behavior, emphasizing the moral and social implications of acting without integrity. The sixth session focused on self-love, illustrating its positive influence on relationships and teaching strategies to resist negative temptations. The seventh session addressed fairness, offering techniques to reduce prejudice and promote equitable treatment of others. In the eighth session, tolerance and anger management were discussed, comparing passive, aggressive, and assertive behaviors while introducing strategies for emotional regulation. The ninth session examined honesty and integrity, encouraging truthful behavior even under challenging circumstances. The tenth session focused on forgiveness, its psychological and relational benefits, and its power to prevent escalation of conflicts. Finally, the eleventh session integrated all the learned virtues, encouraging participants to apply moral

intelligence in their daily and social lives, express gratitude for participation, and commit to sharing these principles with peers and family members.

2.4. Data Analysis

To examine, categorize, and interpret the data collected for this study, both descriptive and inferential statistical methods were employed. Descriptive statistics, including mean and standard deviation, were used to summarize the data, while inferential statistics—specifically multivariate analysis of covariance (MANCOVA)—were applied to test the research hypotheses.

Before conducting MANCOVA, key assumptions were verified to ensure the validity of the analysis. These included testing for multivariate normality, detection of outliers and missing values, equality of variances, and linearity. All assumptions were examined and met satisfactorily. Statistical analyses were conducted using SPSS version 22.

3. Findings and Results

Initially, the researcher examined the demographic characteristics of the participants. Two schools were randomly selected, and a total of 30 female students participated in the study—15 in the control group and 15 in the experimental group.

Table 1

Mean and Standard Deviation of the Studied Variables in the Pretest and Posttest Phases of the Groups

Variables	Stages	Group	Mean	SD
Cooperation	Pretest	Control	4.4	1.5
		Experimental	4.3	1.5
	Posttest	Control	4.5	1.5
		Experimental	6.5	1.06
Assertiveness	Pretest	Control	5.6	2.66
		Experimental	5.5	2.5
	Posttest	Control	5.5	2.5
		Experimental	9.5	1.5
Self-control	Pretest	Control	4.68	1.60
		Experimental	4.75	1.33
	Posttest	Control	4.60	1.5
		Experimental	7.67	1.5

According to Table 1, the experimental group demonstrated mean and standard deviation values of 4.3 and 1.50, respectively, for the cooperation variable at the pretest stage, and 6.5 and 1.06 at the posttest stage. For assertiveness, the mean and standard deviation values at

pretest were 5.5 and 2.50, and at posttest were 9.5 and 1.50, respectively. Regarding self-control, the experimental group's mean and standard deviation values at pretest were 4.75 and 1.33, and at posttest were 7.67 and 1.50.

Table 2*Summary of Multivariate Analysis of Variance Results*

Test	Value	F	df	df error	p
Pillai's Trace	0.909	76.14	3	23	0.001
Wilks' Lambda	0.091	76.14	3	23	0.001
Hotelling's Trace	9.951	76.14	3	23	0.001
Roy's Largest Root	9.951	76.14	3	23	0.001

As shown in Table 2, there was a statistically significant difference between the two groups in at least one of the dependent variables.

Table 3*Results of One-Way Analysis of Variance (ANOVA)*

Effect	Dependent Variable	SS	df	MS	F	p	η^2
Group	Cooperation	44.033	1	44.033	53.766	0.001	0.37
	Assertiveness	30.133	1	30.133	104.612	0.001	0.55
	Self-control	22.633	1	22.633	36.832	0.001	0.46

The data presented in Table 3 indicate that the one-way ANOVA yielded significant results for cooperation ($F = 53.766$, $p = 0.001$), assertiveness ($F = 104.612$, $p = 0.001$), and self-control ($F = 36.832$, $p = 0.001$).

A multivariate analysis of covariance (MANCOVA) was conducted after verifying that the assumptions for this statistical method were met. Wilks' Lambda revealed significant differences in at least one dependent variable between the control and experimental groups. Follow-up univariate ANOVAs for each dependent variable confirmed that moral intelligence training led to significant improvements in cooperation, assertiveness, and self-control among students in the experimental group.

4. Discussion and Conclusion

The findings of this study demonstrated that moral intelligence training significantly enhanced the social skills components of cooperation, assertiveness, and self-control among young female elementary school students. Participants who received structured moral intelligence instruction showed marked improvements in their ability to collaborate effectively, express themselves confidently, and regulate their impulses compared to those in the control group. These results align with the theoretical foundations of moral intelligence, which emphasize that moral understanding, ethical reasoning, and emotional regulation interact dynamically to shape prosocial behavior and interpersonal competence (Garrigan et al., 2018; Tangney et

al., 2018). The observed improvements in social functioning reflect the effectiveness of moral intelligence education in fostering essential interpersonal qualities that underpin social adjustment and psychological well-being in early childhood.

The enhancement of cooperation among students in the experimental group can be attributed to the internalization of moral principles such as fairness, respect, and empathy—core components of moral intelligence (Raisi et al., 2018; Saleh, 2018). Moral education encourages children to view cooperation not merely as a social expectation but as a moral obligation grounded in shared values and mutual respect (Prasertsin et al., 2024). Similar findings have been reported by Al-Adwan (2022), who found that moral intelligence positively correlates with children's social skills, including cooperation and empathy. Moral instruction helps students appreciate the benefits of collaborative interaction, enabling them to work harmoniously with others and resolve interpersonal differences constructively (Puspitasari et al., 2022). These outcomes resonate with the notion that moral reasoning provides an ethical framework for social engagement, thereby enhancing cooperative tendencies in group settings.

The improvement in assertiveness observed in this study also supports previous research highlighting the influence of moral and emotional competencies on confident and adaptive self-expression (Alhadabi et al., 2019; Park & Dhandra, 2017). When children understand moral values and

internalize self-respect, they develop the capacity to assert their opinions while maintaining sensitivity to others' rights and perspectives. Moral intelligence fosters a balance between self-confidence and empathy, allowing individuals to express their needs without aggression or withdrawal (Asif et al., 2020; Wills et al., 2016). In this regard, assertiveness can be seen as an outcome of moral self-regulation—where the individual's internal moral compass supports ethical communication and self-expression. The training activities in this study, which included discussions, role-playing, and problem-solving, may have enabled participants to practice respectful assertiveness in interpersonal contexts, reinforcing their social confidence and emotional balance.

The significant gains in self-control among students in the experimental group provide further evidence of the effectiveness of moral intelligence education in strengthening behavioral regulation. Self-control is an essential dimension of both emotional and moral intelligence, reflecting an individual's ability to manage impulses and act in accordance with ethical principles (Duckworth et al., 2016; Tangney et al., 2018). Moral intelligence training cultivates self-awareness and conscience, empowering children to recognize the moral implications of their actions and to resist temptations that conflict with their values (Hollins, 2019; Smith et al., 2019). The sessions emphasizing integrity, fairness, and tolerance likely enhanced students' cognitive control and capacity to delay gratification—processes that are closely tied to moral maturity (Rezapour et al., 2018). These findings echo those of Wills et al. (2016), who described emotional self-regulation as a dual-process mechanism linking moral reasoning to both externalizing and internalizing behaviors in adolescents. By guiding students to reflect on right and wrong, moral intelligence education provides them with cognitive and emotional tools to act thoughtfully and responsibly.

Moreover, the integrative nature of moral intelligence—linking cognition, emotion, and behavior—may explain the consistent improvements across all three social skill domains (Garrigan et al., 2018; Ornaghi et al., 2020). As Ornaghi et al. (2020) suggested, empathy and emotional regulation play central roles in moral behavior, influencing how individuals interpret and respond to social cues. Through activities designed to enhance perspective-taking and moral reflection, the intervention likely strengthened students' empathic awareness and their ability to engage appropriately in diverse social situations. This is consistent with findings

from Prasertsin et al. (2024), who developed indicators of moral intelligence and found that moral education fosters ethical understanding and emotional competence among adolescents. The present study extends this understanding to younger populations, demonstrating that similar principles apply effectively in elementary education.

The results also affirm the centrality of empathy as a foundational element of moral intelligence. Empathy facilitates understanding of others' feelings, encourages altruistic actions, and prevents socially disruptive behaviors (Asif et al., 2020; Raisi et al., 2018). By teaching students to recognize emotional states in themselves and others, the program enhanced their emotional awareness and their capacity for compassionate interaction. Empathy, in turn, acts as a mediator between moral understanding and prosocial behavior (Ornaghi et al., 2020). Consistent with this, Alhadabi et al. (2019) found that parenting styles promoting empathy and moral awareness positively predicted academic and social outcomes in adolescents. The moral intelligence intervention used in the current study mirrored these parental influences by creating an educational context in which empathy and conscience were explicitly taught, practiced, and reinforced.

The findings are also supported by theoretical and empirical models linking moral intelligence with broader moral and psychological development. According to Garrigan et al. (2018), moral development involves both cognitive and affective components that collectively guide moral decision-making. Moral intelligence bridges these domains by integrating moral reasoning (the ability to determine what is right) with moral performance (the ability to act on it). The program's structure—addressing concepts such as respect, fairness, honesty, and forgiveness—helped students connect moral principles with real-life behaviors, transforming abstract values into concrete actions. This alignment between thought and conduct is essential for internalizing moral standards and sustaining them in daily life (Saleh, 2018).

Another factor that may have contributed to the intervention's success is its emphasis on experiential and reflective learning, consistent with modern pedagogical theories advocating for active engagement in moral education (Banda, 2025). The use of discussions, case analysis, and role-playing encouraged self-exploration and moral reasoning, enabling students to internalize ethical concepts through lived experience. Banda (2025) argued that effective moral instruction should not rely solely on didactic methods but should actively involve learners in ethical

reflection and decision-making. The present study's training sessions adhered to this principle, giving students opportunities to practice and apply moral reasoning in interpersonal contexts.

Furthermore, the positive outcomes in this study are consistent with findings from Rezapour et al. (2018), who reported that moral intelligence training improved social performance and reduced behavioral problems in school-aged children. Similarly, Raisi et al. (2018) found that higher levels of moral intelligence were associated with reduced aggression and improved emotional regulation, suggesting that moral competence acts as a buffer against maladaptive behaviors. The results of this study reinforce these conclusions, providing empirical evidence that moral intelligence interventions can enhance children's psychosocial adjustment by equipping them with ethical reasoning, self-control, and social empathy.

The relevance of these findings extends beyond local educational contexts, aligning with cross-cultural research that underscores the universal importance of moral development. Studies across diverse cultural settings—such as those by Asif et al. (2020) in China and Pakistan, and by Prasertsin et al. (2024) in Thailand—have demonstrated that moral intelligence is an essential predictor of students' ethical behavior, cooperation, and social integration. These converging results suggest that moral education, when appropriately contextualized, can serve as a global strategy for fostering moral awareness and social responsibility among children (Al-Adwan, 2022; Puspitasari et al., 2022). In the same vein, Lişman and Holman (2025) found that moral emotions and moral reasoning jointly predict fidelity and ethical conduct, further affirming the role of moral cognition in sustaining prosocial relationships.

It is also noteworthy that moral intelligence training not only enhances moral reasoning but also strengthens emotional and cognitive regulation processes. This integration reflects what Duckworth et al. (2016) termed "situational strategies for self-control," emphasizing the dynamic relationship between moral awareness and behavioral restraint. Moral education equips children with tools to anticipate moral dilemmas, assess the consequences of their actions, and respond adaptively under emotional pressure (Hollins, 2019; Smith et al., 2019). The participants' increased self-control observed in this study illustrates this process of internalization, where moral reasoning becomes a self-regulatory mechanism guiding behavior in real time.

The findings further support theoretical assertions that moral intelligence plays a mediating role between emotional intelligence and social behavior (Park & Dhandra, 2017; Wills et al., 2016). Emotional understanding without moral reasoning may lead to manipulative or self-serving conduct, whereas moral awareness without emotional regulation may result in moral rigidity. The balance achieved through moral intelligence ensures that ethical decisions are both compassionate and practical (Garrigan et al., 2018; Lişman & Holman, 2025). This integrative view aligns with Prasertsin et al. (2024), who suggested that moral intelligence represents the apex of character education, merging empathy, conscience, and self-control into a cohesive moral framework.

Collectively, the present findings demonstrate that moral intelligence education effectively strengthens children's interpersonal functioning, self-discipline, and ethical awareness. By addressing cognitive, emotional, and behavioral dimensions of morality, this intervention offers a holistic approach to moral and social development. The consistency of these findings with prior research across multiple contexts reinforces the robustness of moral intelligence theory and its applicability in educational psychology. In sum, moral intelligence training can be considered a valuable pedagogical tool for cultivating moral character, emotional stability, and social harmony in young learners.

Despite its promising outcomes, this study faced several limitations. First, the sample size was relatively small and limited to two schools in Bandar Abbas City, which may restrict the generalizability of the findings to broader populations. Second, the reliance on self-report measures such as the Social Skills Rating System may have introduced response bias, as participants might have provided socially desirable answers. Third, the study focused exclusively on female elementary students, leaving open questions about whether similar results would be observed among male students or different age groups. Additionally, the follow-up period was short, and long-term sustainability of the training effects remains unknown. Finally, contextual variables such as family background, classroom environment, and teacher attitudes toward moral education were not systematically controlled, which might have influenced the outcomes.

Future studies should consider employing larger and more diverse samples to enhance the external validity of findings. Longitudinal designs are recommended to evaluate the persistence of moral intelligence gains over time and to determine whether these skills translate into lasting

behavioral changes. Researchers could also compare different pedagogical approaches—such as digital moral learning, peer mentoring, or parental involvement programs—to identify the most effective delivery methods. Including neuropsychological or observational measures would provide a more objective assessment of changes in self-control and empathy. Cross-cultural comparisons could further clarify the universality or cultural specificity of moral intelligence development. Lastly, experimental designs incorporating mixed-gender groups and multi-informant assessments (teachers, parents, peers) would offer a more comprehensive understanding of the developmental mechanisms underlying moral intelligence and social behavior.

Educators should integrate moral intelligence training into the core curriculum of elementary schools to promote holistic child development. Structured sessions emphasizing values such as respect, empathy, honesty, and self-control can be embedded within social-emotional learning frameworks. Teachers can adopt experiential strategies—such as storytelling, role-playing, and reflective discussions—to help students internalize moral values through active engagement. School psychologists and counselors can use moral intelligence interventions as preventive tools for behavioral and social problems, encouraging emotional regulation and cooperation in classrooms. Moreover, collaboration between schools and families is crucial to ensure consistent reinforcement of moral principles both at home and in educational settings. By prioritizing moral intelligence as a foundational life skill, educational institutions can nurture a generation of students who are not only academically competent but also ethically responsible and socially empathetic.

Authors' Contributions

All authors significantly contributed to this study.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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Declaration of Interest

The authors report no conflict of interest.

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Ethical Considerations

In this study, to observe ethical considerations, participants were informed about the goals and importance of the research before the start of the study and participated in the research with informed consent.

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