

Active discussion vice versa passive observation: a comparative study on developing sport-related moral competencies in amateur and professional sport students

Małgorzata Bronikowska^{1ABCDE}, Krzysztof Pezdek^{2BD}, Sara Wawrzyniak^{2BCD}, Marlena Łopatka^{3BD}, Michał Bronikowski^{3ABCD}

¹ Department of Recreation, Poznan University of Physical Education, Poland

² Department of Physical Education and Sport, Wrocław University of Health and Sport Sciences, Wrocław, Poland

³ Department of Physical Activity Didactics, Poznan University of Physical Education, Poland

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Abstract

Background and Study Aim Moral education of youth is one of the key components in shaping values across various contexts. Among the many approaches to such education, a special role is assigned to sports and physical activity and their influence on personality development. The potential of sports to foster moral education underscores the need for effective approaches to teaching moral values through sport. The aim of the study is to compare the effectiveness of active discussion and passive observation approaches in developing moral competencies among amateur and professional sports students.

Material and Methods The study included 259 first-year sports students. Among them, 131 were professional athletes. In the pre-test phase, all participants completed Lind's Moral Judgment Test and the Moral Judgment Test in Physical Education. After a seven-week intervention, participants completed only the Moral Judgment Test in Physical Education as a post-test. The intervention involved three groups. Groups E1 and E2 viewed films that portrayed contrasting behaviors in sports. Group E3 participated in discussions based on the Konstanz Method of Dilemma-Discussion.

Results Significant differences ($p = .01$) in sport-related moral competence were observed in the post-test. Group E3, which participated in moral dilemma discussions, achieved the highest scores in sport-related moral competence. Among amateur athletes, the intervention significantly improved sport-related moral competencies from pre- to post-test.

Conclusions The results show that engaging in discussions about moral dilemmas can shape young athletes' perceptions and judgments. Viewing positive portrayals of sporting behavior in films also influences their understanding of moral issues in real-life sports situations.

Keywords: discussion, video-based moral judgement learning, sport, amateurs, professionals

Introduction

Moral education in sports is vital for shaping ethical values and enhancing decision-making skills in students and athletes. Despite the recognized potential of sports to promote moral development, the lack of clear consensus on the most effective approaches may hinder progress in this field. This highlights the need for a deeper analysis of moral education strategies that effectively support the holistic development of young people's moral competencies.

In this context, Szyszko-Bohusz [1] emphasizes that the global civilizational transformations of the modern world reveal signs of a socio-moral crisis. This crisis is reflected in the erosion of universal moral values, such as altruism, adherence to truth, and the transcendence of individual egoism. Similarly,

research findings suggest that sport, at various levels of involvement, is becoming increasingly intense, commercialized, and professionalized [2]. These trends often lead to conflicts between values and functionality, as well as between fairness and merit.

Premises about negative trends in the development of contemporary culture highlight the need for greater attention to moral education. Bronikowska et al. [3] emphasize that educating morally conscious youth is the most critical condition for the socially and morally healthy functioning of modern societies. Despite the previously mentioned tendencies, sport, when viewed in the context of justice, remains inherently connected to morality. As such, it can serve as a valuable tool for education and moral development [4]. Research shows that practicing sports can have both positive and negative impacts on moral competences, depending on the factors examined [3, 5, 6].

Engagement in sport has the potential to

enhance moral reasoning skills, encourage prosocial behavior, and improve sportsmanship among participants [7, 8]. Additionally, it serves as a platform for learning cooperation with teammates. Negotiating and resolving moral dilemmas can help athletes develop self-control, demonstrate courage, and cultivate virtues such as teamwork, fairness, and a strong work ethic [9, 10, 11]. However, when neglected or misused, sports can lead to significant moral harm. For instance, recent studies [12] indicate that perfectionism and burnout in sports often result in lower levels of moral engagement and increased antisocial behaviors among athletes.

The hidden potential of moral education in sports raises an important question about the most effective methods for teaching morality through sport. Moral competences, including moral reasoning and acting in accordance with universal values [3], are developed through a complex process. This process involves exposure to moral tasks that, when designed effectively, can foster an individual's moral development.

Garrigan et al. [13] define moral development as the process of maturing in making moral decisions. This process is influenced by moral reasoning, which is stored in memory as moral patterns shaped by moral rules, knowledge, and understanding. Gibbs [14] expands on this idea, emphasizing that both affective components, such as empathy, and cognitive components, such as reasoning, are equally important for moral action. The role of moral schemas stored in memory, along with the affective validation of discussions about dilemmas that involve choosing between actions tied to different moral values, is central to moral education. Current research shows that discussing moral dilemmas can be an effective method for fostering moral development [15, 16, 17, 18, 19], particularly in peer interactions [18]. However, it remains unclear whether this method will be equally effective in a sports context.

Discussing moral dilemmas in sports plays a significant role in moral education [9]. These discussions allow young people to reflect on real-life situations where athletes face decisions about their integrity. Examples include deciding whether to report a foul, follow the rules of fairness, or cheat to win [19, 20, 21]. Analyzing these relatable scenarios helps young people understand the moral consequences of their actions, both in sports and in everyday life. Additionally, such discussions contribute to the development of values associated with sports. Sport is universally recognized as a promoter of values such as justice, responsibility, tolerance, solidarity, and perseverance in achieving goals. These values are essential not only for an athlete's personal growth but also for fostering social relationships [22, 23]. Furthermore, they have lasting relevance and utility beyond the realm of

sports, enriching life outside athletic contexts.

Another important educational aspect of discussing moral dilemmas is emphasizing the role of empathy and considering the perspectives of others. In sports, athletes frequently collaborate with various individuals. This includes teammates, coaching staff, and officials. Such collaboration requires a multidimensional understanding and the ability to take others' perspectives into account. This skill is especially crucial for building healthy relationships within a team.

Sports provide numerous examples of moral actions that can be analyzed through various moral theories. To help young minds connect theory with practice and understand its impact on an athlete's daily life, specially designed educational tasks should be incorporated into the training process. Discussing moral dilemmas in sports encourages young people to reflect on their own behaviors and their consequences. As a result, it is hoped that their actions will become more conscious and responsible. Additionally, the impact of such discussions on the development of decision-making skills in young people should not be underestimated. These discussions teach them how to analyze and evaluate specific situations. They also help young people learn to act in accordance with socially acceptable moral values [18, 24, 25].

When examining modern education and the rise of new teaching technologies, it is essential to consider video as a tool for conveying information visually. Video appears to be an effective educational tool [27, 28], particularly due to its cognitive potential and its ability to evoke emotions. Previous research shows that video can support the moral learning process as early as childhood [29]. It may also help teach moral principles to older students [30].

These findings, along with the demonstrated high effectiveness of dilemma discussions, indicate the need to compare two different intervention methods. The first method involves active participation in discussions, while the second relies on watching video materials without discussion, using a self-reflection approach.

This approach allows for the assumption that the group discussion method on moral dilemmas is likely to contribute to the development of moral competencies among university students. A similar effect is anticipated from film materials featuring positive content, such as sportsmanship and adherence to fair play rules. In contrast, films depicting negative content, such as unsportsmanlike behavior or violations of fair play principles, are less likely to produce the same results. Additionally, it is hypothesized that students engaged in amateur sports will exhibit a higher level of moral competencies compared to their peers involved in professional sports. The aim of the study is to

compare the effectiveness of active discussion and passive observation approaches in developing moral competencies among amateur and professional sports students.

Material and Methods

Participants

The study included 259 participants (35% female), recruited from first-year students of Sport major faculties at Poznan University of Physical Education and Wroclaw University of Health and Sport Sciences during the 2023/2024 academic year. Of these, 128 students identified as amateur athletes, with an average of 7.9 ± 3.42 years of recreational training experience. The remaining 131 participants identified as professional athletes, reporting an average of 10.0 ± 3.01 years of professional training experience. The average age of the respondents was 19.5 ± 1.44 years.

Ethics

The experiment was carefully designed and conducted in compliance with the regulations of the Declaration of Helsinki (2013 revision). The study protocol was approved by the Bioethics Committee of the University of Medical Sciences in Poznan (decision number: 893/18).

Prior to the research, all participants were informed about the study's aim and procedures. They were assured that their participation was voluntary and that they could withdraw at any time without consequences. Written informed consent was obtained at the beginning of the study after participants were briefed about the confidentiality and anonymity of data collection and storage. They were also informed that their contributions would remain unidentifiable in any final outputs, including publications and reports.

Research Design

The study employed a diagnostic survey method using a quasi-experimental design with pre- and post-testing across four groups: three experimental groups (EG1-EG3) and one control group (CG). During the pre-test phase, all participants first completed Lind's Moral Judgment Test (MJT) [31, 32], followed by the Moral Judgment Test in Physical Education (MJT-PE) [33]. The tests were administered in accordance with standard instructions, without providing additional information or further explanations. Each testing session lasted 45 minutes.

After a seven-week intervention period, the post-test was administered among university students. At this stage, participants in all groups completed only the Moral Judgment Test in Physical Education (MJT-PE). Groups E1 and E2 watched films depicting contrasting behaviors in sports prior to taking the post-test. Meanwhile, Group E3 participated in

discussions conducted according to the full protocol of the Konstanz Method of Dilemma-Discussion (KMDD) [34, 35].

In Group E1 ($N=75$), the session began with the academic teacher presenting a short film [36] via a classroom projector. The film, lasting approximately six minutes, depicted various examples of unethical behavior and unfair play across different sports disciplines. Immediately after watching the video, participants completed the MJT-PE test without engaging in any discussion or sharing views with other participants. The film was sourced from a publicly available streaming platform (YouTube) on the Internet.

In Group E2 ($N=64$), the academic teacher presented a six-minute film showcasing examples of fair play behavior across various sports [37]. Immediately afterward, participants were instructed to complete the MJT-PE test without engaging in any discussion or exchange of opinions. The film was sourced from a publicly available streaming platform.

In the third group, E3 ($N=72$), a moral dilemma discussion was conducted before participants completed the MJT-PE post-test. The discussion followed the principles of the Konstanz Method of Dilemma-Discussion (KMDD) [35]. This method focuses on exploring moral dilemmas within a framework of democratic principles. Its primary goal is to encourage the exchange of well-reasoned arguments and diverse perspectives in a structured, intellectually, and emotionally engaging environment. The session involved a dynamic interplay of cognitive and emotional engagement, incorporating phases of varying intensity and activity levels [35].

The group discussion was facilitated by a well-trained academic instructor who was proficient in the KMDD method. Participants spent 45 minutes discussing each item of the MJT-PE test as a group. The topics included themes such as obeying the coach or referee's decisions, winning at all costs, fouling versus fair play, respect for opponents and their well-being, aggressive behaviors in sports, sporting and unsporting behaviors, rule violations, and the judgment of winners. Each of the 12 items in the MJT-PE test was discussed for approximately three minutes.

The discussion was designed to present various perspectives on these topics without offering final conclusions or evaluating the moral or ethical aspects. The primary objective was to encourage participants to form their own opinions. The academic instructor moderated the discussion, ensuring that it remained structured and that participants adhered to the rules. Only one person was allowed to speak at a time, and no judgments about right or wrong were made by the instructor.

In contrast, participants in the control group (CG,

N=48) completed the MJT-PE post-test immediately after the seven-week period. No supplementary activities, such as media usage or group discussions, were conducted prior to the test.

The level of general-life moral competence was measured using a validated Polish version [38] of Lind's Moral Competence Test (MCT) [31, 32] to determine the respondents' moral competence level (C-index). University students were presented with two dilemmas based on real-life scenarios. The first scenario involved a healthcare setting, where a patient experiencing severe pain and facing a progressive condition seeks her clinician's assistance in considering euthanasia. The second scenario depicted unethical behavior in a factory, where employees, suspecting management of misusing confidential information against them, decide to break into the administrative office.

After carefully reading the scenarios, students were asked to evaluate their thoughts using 12 statements for each moral problem (6 in favor and 6 against the described behavior). Responses were recorded on a 9-point Likert scale, ranging from -4 (totally disagree) to +4 (totally agree), following the established protocol [32]. This tool aligns with Kohlberg's six-stage moral development framework [39]. After all, MCT surveys were collected, the C-index score was calculated using Lind's algorithm [31].

Upon completing the survey, respondents receive a score ranging from 1 to 100 points, depending on their answers. A lower C-index score indicates a lower level of moral competence. The final score reflects an individual's ability to evaluate a dispute based on their own moral principles.

In broader terms, the C-index measures the extent to which a person's judgments are influenced by external moral concerns or intermediating factors, rather than their personal moral constructions and opinions. Scores below 19 are classified as low, scores between 19 and 29 as moderate, and scores above 29 as high levels of moral competence.

Moral Competence in Physical Education and Sport

The level of sport-related moral competence was measured using the Moral Judgment Test in Physical Education (MJT-PE), developed by Mouratidou et al. [33], to evaluate university students' moral competence in a specific sports context. This tool is an extension of Lind's MCT [31, 32], grounded in Kohlberg's moral development theory [39] and the dual-feature theory of moral behavior. Unlike the MCT, the MJT-PE involves only a single dilemma. This dilemma is based on a real-life scenario that depicts an inconsistent situation during a sports competition. The moral problem concerns young athletes participating in a school basketball championship. In the final moments of the decisive game, they employ dishonest strategies to secure victory at any cost. As with Lind's MCT, respondents

are expected to evaluate their agreement or disagreement with 12 statements (6 in favor and 6 against the behavior described in the scenario). They are asked to base their responses on their prior experiences and knowledge of sports. Participants record their answers on a 9-point Likert scale, ranging from -4 (totally disagree) to +4 (totally agree), while assessing the entire situation.

From a moral perspective, this tool was intended to capture the understanding of ethical dilemmas reflected in the behaviors of players depicted in the sports context. The moral competence in sports index (C-PE index) is calculated in the same way as the moral competence index in Lind's tool (C-index). The primary difference is the changed context of the dilemma, as well as the fact that the MJT-PE contains only one moral dilemma.

Participants were asked to honestly define their level of involvement in sports, specifying whether it was amateur (participating in sports activities as a hobby, for pleasure [40]) or professional (participating in a regular system of sports competitions organized by official federations [41]). The survey also included questions about the number of years of involvement in sports and the specific sport they practiced.

The study was conducted in a lecture hall and lasted no longer than 45 minutes. To facilitate efficient and convenient data collection, respondents completed the survey using an online Google Forms link. Technical support from the researcher was available to participants if needed.

Statistical Analysis

The data analysis was conducted using tests appropriate for normally distributed data (Shapiro-Wilk test). An ANOVA test was applied to examine interaction and main effects. Student's t-test was used to assess the significance of differences in mean values between pre-test and post-test results within each group for sport-related competence level C-index scores. Additionally, the Kruskal-Wallis ANOVA was employed to test for potential differences in C-index scores between all groups. This was done separately for the General-life level of moral competencies and the Sport-related competencies level in term I (pre-test) and term II (post-test). The significance level was set at $p < .05$. All analyses were performed using the STATISTICA 13.1 software package (StatSoft Polska sp. z o.o., 2021).

Results

The repeated measures ANOVA revealed a main effect of the experimental (intervention) factor on the level of sport-related competencies across the examined groups between terms I and II [$F(1, 254) = 4.4223$, $p = 0.036$]. The interaction effect (time $\times$ group) was approaching statistical significance [$F(3, 254) = 2.5594$, $p = 0.055$].

A more detailed comparison of C-index scores is presented in Table 1. No significant differences were found between the groups in General-life moral competencies. Similarly, no significant differences were observed in sport-related competence levels between the groups during the first term of examination (pre-test). However, a significant difference ($p = 0.01$) was detected during the second term (post-test). Post-hoc testing revealed that these differences were due to variations between the following groups: Experimental Group 1 vs. Experimental Group 3 and Control Group vs. Experimental Group 3. All differences were significant ($p \leq 0.05$) and favored Experimental Group 3. Furthermore, a significant positive improvement in sport-related competence scores was observed between terms I and II for Experimental Group 3 ($p = 0.01$). No such changes were noted in the other groups. The mean C-score for sport-related competence achieved by Experimental Group 3 in the second term (post-intervention) was the highest among all groups.

In the second step, a repeated measures ANOVA was conducted separately for subgroups (amateurs and professionals). For the amateur subgroup, the analysis revealed a main effect of the experimental (intervention) factor on the level of sport-related competencies between terms I and II [$F(1, 124) = 6.5423$, $p = 0.017$]. The interaction effect (time $\times$

group) approached statistical significance [$F(3, 124) = 2.5020$, $p = 0.062$]. In contrast, for the professional subgroup, no significant main effects or interaction effects were observed.

Further, an in-depth comparison of mean C-index scores between groups and examination terms for amateurs (Table 2) revealed significant differences between the groups during the second term of examination ($p = 0.01$). Amateurs in Experimental Group 3 scored significantly higher than their peers in Experimental Group 1 and the Control Group ($p < 0.05$). Additionally, the most significant increase in sport-related competencies ($p = 0.01$) between terms I and II was observed in Experimental Group 3. This score was also the highest among all groups and terms. No significant differences were found between the subgroups of amateurs in the levels of General-life competencies.

For the professional subgroup (Table 3), the only observed difference between the groups was in the levels of sport-related competencies during the second term of examination ($p = 0.03$). However, post-hoc analysis revealed no statistically significant differences. It is noteworthy that the mean score of professional athletes in Experimental Group 3 was the highest among all groups. This score showed a slight upward trend in the second term of examination, although it did not reach the level of statistical significance.

Table 1. General-life index and sport-related C-index scores for total groups of athletes.

Group Code	N	General-Life Competence C-Index	Sport-Competence C-Index I Term	Sport-Competence C-Index II Term	I - II Terms Students' T-Test
		M $\pm$ SD	M $\pm$ SD	M $\pm$ SD	p value
EG 1	75	15.5 $\pm$ 0.82	30.3 $\pm$ 0.38	33.4 $\pm$ 0.40	0.27
EG 2	64	12.8 $\pm$ 8.68	32.2 $\pm$ 18.43	35.7 $\pm$ 20.21	0.24
EG 3	72	14.3 $\pm$ 9.80	33.7 $\pm$ 18.85	43.2 $\pm$ 21.29 ^{a, b}	0.01
CG	48	14.4 $\pm$ 9.19	36.9 $\pm$ 20.98	33.9 $\pm$ 22.62	0.39
Kruskal-Wallis (ANOVA) p value		0.43	0.35	0.01	

Post-hoc test: * $p < 0.05$; a – E1<E3*, b - Control<E3*

Table 2. General-life index and sport-related C-index scores for group of amateur athletes.

Group Code	N	General-Life Competence C-Index	Sport-Competence C-Index I Term	Sport-Competence C-Index II Term	I - II Terms Students' T-Test
		M $\pm$ SD	M $\pm$ SD	M $\pm$ SD	p value
EG 1	75	16.3 $\pm$ 11.00	31.5 $\pm$ 19.00	33.4 $\pm$ 21.8	0.10
EG 2	64	11.8 $\pm$ 8.08	33.2 $\pm$ 20.12	35.8 $\pm$ 21.4	0.44
EG 3	72	13.5 $\pm$ 9.50	32.3 $\pm$ 18.43	47.9 $\pm$ 22.01 ^{a, b}	0.01
CG	48	14.3 $\pm$ 9.62	39.9 $\pm$ 20.4	38.5 $\pm$ 24.85	0.25
Kruskal-Wallis (ANOVA) p value		0.28	0.53	0.01	

Post-hoc test: * $p < 0.05$; a – E1<E3*, b - Control<E3*

Table 3. General-life index and sport-related C-index scores for professional athletes.

Group Code	N	General-Life Competence C-Index	Sport-Competence C-Index I Term	Sport-Competence C-Index II Term	I - II Terms Students' T-Test
		M±SD	M±SD	M±SD	p value
EG 1	75	14.4±8.68	28.7±20.16	28.1±17.7	0.87
EG 2	64	13.9±9.33	31.6±16.51	35.4±19.28	0.38
EG 3	72	14.9±10.10	34.8±19.32	39.7±20.28	0.20
CG	48	14.6±9.04	34.7±21.45	30.7±20.76	0.36
Kruskal-Wallis (ANOVA) p value		0.93	0.95	0.03	

Post-hoc test: non-significant

Table 4. General-life competence C-index and sport-related competence C-index between the groups of amateurs and professional athletes.

Group	N	General-life competence C-index	Sport-related competence C-index I term	Sport-related competence C-index II term
		M ± SD	M ± SD	M ± SD
Amateurs	N=128	14.1±9.76	33.5±19.38	39.7±23.18
Professionals	N=123	14.5±9.27	32.5±19.85	34.0±19.85
p value		0.76	0.67	0.03

The final step involved comparing the mean values of General-life competencies between the groups of amateurs and professional athletes. No statistically significant differences were found (Table 4). A similar outcome was observed in the pre-test (Term I) comparison of sport-related competence scores between amateurs and professionals. However, a statistically significant difference ($p = 0.03$) was identified in the post-test (Term II) analysis of these scores. Amateurs demonstrated significantly higher levels of moral competence in the sport-related context compared to professionals.

Discussion

The objective of this research was to examine the potential impact of different interventions on the moral competences of Sport and PE major students. These interventions included moral dilemma discussions and exposure to sports-related video films showcasing both sportsmanlike and unsportsmanlike behaviors. Additionally, the study aimed to explore the relationship between moral competence and the level of competition among athletes.

In this study, we hypothesized that the moral dilemma discussion method would have the most significant impact on participants' moral competence among the methods used. This hypothesis was based on previous research conducted with students in the United States and Britain [42]. The findings suggest that, despite being digital natives, Generation Z members prefer face-to-face communication over

text or email. Studies indicate that young people value emotional connections and the human aspect of interactions. This preference may be a response to the challenges of living in a globalized and often remote world. Respondents highlighted the importance of direct contact, expressing a desire for closeness and authenticity in their interpersonal relationships [42]. Our hypothesis was positively validated. The levels of competence among students in the moral dilemma discussion group were notably higher than those in the other groups. Furthermore, these differences were statistically significant when compared to both the control group (which had no intervention) and the group exposed to negative behaviors in sports via video films.

Research suggests [43] that exposure to negative or violent media, including movies, can significantly influence the moral judgment and behavior of young people. Studies indicate that violent media can lead to increased aggressive thoughts, emotions, and behaviors. This underscores that the moral implications presented in stories can shape how young individuals perceive right and wrong.

It was also hypothesized that the moral dilemma discussion group and the group exposed to positive sporting behaviors through video films would demonstrate higher levels of proficiency. Research highlights that media emphasizing specific moral intuitions can directly influence how young viewers perceive and evaluate right and wrong in real-life situations. By presenting clear narratives of justice, kindness, and perseverance, positive films can

promote more ethical behavior among the youth [44]. In educational contexts, movies can also foster critical thinking and reflection. They help students process complex social issues and moral scenarios, which further influence their personal development and moral outlook [45]. Our hypothesis was partially validated. While the level of moral competence was higher in these groups, the differences were not statistically significant, except in the case of the moral dilemma discussion group.

Introducing moral dilemma discussions is firmly grounded in multiple scientific disciplines. Their efficacy has been extensively studied across various age groups [46, 47, 48]. However, this approach has not been widely applied in the context of sports, nor among athletes and sports professionals. This gap inspired the current research, which focuses on sport-related issues and their impact on students engaged in any form of sport. These findings are consistent with prior research by Bronikowska et al. [3], which highlighted the positive effect of dilemma discussions on athletes' moral competence within the domain of physical education and sports.

On the other hand, Nicholas et al. [30] suggest that educators can use videos to teach moral principles, supported by evidence of student achievement and increased interest in learning. In this study, film materials were used to present positive (one experimental group) and negative (another experimental group) sporting behaviors tailored to specific groups. The results showed that both experimental groups (E1 and E2) demonstrated higher levels of moral competence in physical education and sports (PE&S) during the post-test compared to the control group. However, their scores were lower than those of the discussion group. These findings highlight the potential value of video-based interventions and point to directions for further research. Particularly, they suggest exploring the integration of the moral dilemma discussion approach with technological tools such as films or virtual reality [49].

The study aimed to explore differences in the level of moral competence between amateur and professional athletes. Among both groups, amateur athletes demonstrated higher levels of moral competence compared to their professional counterparts. Notably, within the amateur subgroup, the participants engaged in moral dilemma discussions showed the most significant improvement in moral competencies. Their results were also notably higher than those of both the control group and the group exposed to films depicting negative, unsportsmanlike behaviors.

The findings of this study align with previous research, which has demonstrated a negative correlation between athletes' proficiency in sports and their ethical and moral conduct [49, 50, 51]. These studies suggest that professional athletes often

exhibit lower levels of moral aptitude compared to amateurs if not properly educated in this area. Additionally, the results support the conclusions of Bronikowska et al. [3], who established that incorporating structured dilemma discussions can significantly benefit amateur athletes. This highlights the critical importance of integrating ethical deliberations into athletic training programs. Such initiatives are especially vital for Physical Education and Sports educators and should ideally begin early in the training process, before young athletes transition into professional sports.

According to Cumming et al. [48], ethical decision-making skills in undergraduate elementary and secondary education students can be enhanced through targeted educational interventions that include discussions of moral dilemmas. Therefore, implementing an intervention program for younger age groups, including both active and non-active participants in sports, was considered valuable.

Within the scope of our research, a single-session intervention was implemented across all three experimental groups, each employing a different approach. The findings indicated that the discussion method was the most effective. For future investigations, it would be prudent to explore the potential efficacy of extending this intervention model across multiple sessions or increasing its duration. Such an approach could provide valuable insights into the sustained impact and long-term effectiveness of the intervention. Additionally, it may prove beneficial in educational systems across different cultures and age groups.

Although the study highlighted important aspects, such as the effectiveness of a positive approach, particularly the discussion method, it also had some limitations. The research sample was relatively small and restricted to students majoring in Sport and Physical Education. This can be seen as both a limitation and a strength. On one hand, these students are expected to have a heightened awareness of the dilemmas presented and be better prepared for their future roles as coaches or teachers. On the other hand, their responses showed notable inconsistencies, which warrant further exploration. Another limitation was the use of only a single-session intervention. It is possible that a more sustained and frequent application of the intervention could lead to more significant changes. However, this aspect remains an area for future in-depth research designs.

Conclusions

Based on the discussion above, several conclusions can be drawn. The research confirms that moral dilemma discussions, compared to other forms of influence, significantly enhance moral competence in a sport-related context. This finding supports the initial hypothesis that discussions

would have the greatest impact. Although exposure to positive sports behaviors through video films also improved moral competence, the improvements were not statistically significant when compared to the discussion group. This indicates that while videos can be beneficial, they may not be as effective as active discussions in fostering moral development.

The study revealed that non-professional athletes exhibited higher moral competencies than professional athletes, particularly those who participated in moral dilemma discussions. This finding underscores the need for ethical education, especially for professional athletes, who may lack competency in this area, as reflected in their lower scores. The results highlight the importance of incorporating structured moral discussion sessions into athletic training programs. Amateur athletes appeared to be the most responsive group, suggesting the necessity of fostering ethical decision-making from an early stage of involvement in sports practice. Given the potential of moral discussions to enhance ethical decision-making skills, it is recommended

to implement similar interventions for younger age groups. These interventions should include both active and non-active sports participants to maximize their impact.

The study recommends exploring the long-term effects of moral dilemma discussions through multi-session interventions. Such an approach could offer valuable insights into the sustained impact of ethical training on moral competence over time.

However, the research acknowledges certain limitations. These include a relatively small sample size restricted to Sport and PE students and the use of a single-session intervention. These factors may limit the generalizability and robustness of the findings, emphasizing the need for further studies to validate the results.

In conclusion, this study provides strong evidence supporting the effectiveness of moral dilemma discussions in enhancing moral competence among athletes. At the same time, it highlights areas for further exploration and underscores the importance of integrating ethical training into sports education programs.

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Information about the authors:

Małgorzata Bronikowska; (Corresponding Author); <https://orcid.org/0000-0002-0584-0725>; bronikowska@awf.poznan.pl; Department of Recreation, Poznan University of Physical Education; Poznan, Poland.

Krzysztof Pezdek; <https://orcid.org/0000-0003-1750-5999>; krzysztof.pezdek@awf.wroc.pl; Department of Physical Education and Sport, Wrocław University of Health and Sport Sciences; Wrocław, Poland.

Sara Wawrzyniak; <https://orcid.org/0000-0003-3040-6637>; sara.wawrzyniak@awf.wroc.pl; Department of Physical Education and Sport, Wrocław University of Health and Sport Sciences; Wrocław, Poland.

Marlena Łopatka; <https://orcid.org/0000-0002-2664-1864>; lopotka@awf.poznan.pl; Department of Physical Activity Didactics, Poznan University of Physical Education; Poznan, Poland.

Michał Bronikowski; <https://orcid.org/0000-0002-4534-7345>; bronikowski@awf.poznan.pl; Department of Physical Activity Didactics, Poznan University of Physical Education; Poznan, Poland.

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