MINISTRY OF NATIONAL EDUCATION
"CAROL DAVILA" UNIVERSITY OF MEDICINE AND PHARMACY, BUCHAREST
Doctoral School

PSYCHOSPIRITUAL INTERVENTIONS FOR ENHANCING ATHLETES' WELL-BEING AND PERFORMANCE
- SUMMARY-

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2025

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Introduction. The Impact of Doping in Sport: Causes, Legal Framework, Substances, and Their Adverse Effects

Doping represents one of the most serious challenges in elite sports, with significant implications for both athlete health and the integrity of competition. Despite notable progress in the fight against doping, the practice remains prevalent across various disciplines—from athletics and cycling to contact sports. According to the World Anti-Doping Agency (WADA) (Hughes, 2015), the most commonly used performance-enhancing substances include anabolic steroids, stimulants, growth hormones, diuretics, and masking agents. These are employed to increase physical performance, reduce fatigue, or conceal the use of other banned substances.

Anabolic steroids are among the most frequently used substances, known for their ability to increase muscle mass and strength, making them popular in strength-based sports such as weightlifting and bodybuilding (Lamb, 1984; Hartgens & Kuipers, 2004). Stimulants such as amphetamines and ephedrine are used to enhance energy and concentration (Creado, 2016) but carry serious cardiovascular risks (Coliță et al., 2022). Human growth hormone (hGH) is also employed to accelerate recovery and stimulate muscle development (Saugy et al., 2006; Holt & Ho, 2019).

The primary reason athletes resort to doping is the pursuit of a competitive edge. The pressure to perform at the highest level—from parents, coaches, teammates, spectators, and even from their own internal expectations—can drive many athletes to use performance-enhancing substances (Petroczi & Aidman, 2008; Ehrnborg & Rosen, 2009). Moreover, the fear of failing to meet performance standards or losing one's athletic career may prompt doping behavior. Another critical factor is the belief that doping, despite its risks, offers a rapid route to enhanced performance—particularly in sports with high levels of competition. It is widely accepted that three main factors contribute to doping behaviors: individual personality traits (such as self-esteem, moral beliefs, and perfectionism), systemic factors within the sports environment (such as team and coach pressure or proximity to competition), and situational factors (such as peer influence and easy access to substances) (Petroczi & Aidman, 2008; Elbe & Barboukis, 2017).

The negative effects of doping are numerous and diverse. In the short term, doping substances can lead to serious problems including increased injury risk, hormonal imbalances, sleep disturbances, and substance dependence (Nikolopoulos et al., 2011). Long-term consequences may include damage to internal organs—especially the liver and heart (Melchert & Welder, 1995; Rogol & Yesalis, 1992; Sullivan et al., 1998; Coliță et al., 2022)—as well as an increased risk of certain cancers (De Santi et al., 2019) and severe mental disorders, such as

heightened aggression, manic behaviors, depression, and anxiety (Piacentino et al., 2015; Cattelan et al., 2020; Coliță et al., 2022; Coliță et al., 2024). Additionally, the use of doping substances undermines sports integrity and may result in severe sanctions, including suspensions and forfeiture of titles or awards.

In recent decades, doping prevalence has significantly decreased, now estimated to range between 5% and 31% (Pielke, 2018). This downward trend is largely attributable to the establishment of the World Anti-Doping Agency (WADA) in 1999, initiated by the International Olympic Committee. WADA coordinates the global fight against doping through research, education, and regulation. In 2004, the agency implemented the World Anti-Doping Code, establishing a unified framework of policies and standards (Lippi, Franchini, & Guidi, 2008; Handelsman, 2015). The 2023 revision of the Code has further strengthened public confidence in fair sports competition.

WADA has also developed the International Standard for Therapeutic Use Exemptions (ISTUE), ensuring fair processes for granting medical exemptions. The agency's mandate allows for the delegation of responsibilities to national (NADOs) and regional anti-doping organizations (RADOs), provided they adhere strictly to the Code and the jurisdiction of the Court of Arbitration for Sport in Lausanne.

WADA's legal foundation is rooted in international anti-doping agreements, starting with the Council of Europe's Convention Against Doping in 1989, followed by UNESCO's International Convention Against Doping in Sport in 2005. Romania has ratified these conventions and implemented several national laws, culminating in Law No. 310/2021, which replaced the previous legislation (Law No. 227/2006).

However, significant confusion persists in Romania regarding the responsibilities of the National Anti-Doping Agency (in Rom. ANAD), due to an ambiguous and bureaucratic legislative framework that overlaps the roles of ANAD with those of other entities, such as the National Anti-Drug Agency (in Rom. ANA). This confusion is compounded by the lack of a clear distinction between "doping" and "doping in sport"—a conceptual nuance overlooked in Law No. 310/2021, which ambiguously extends its scope to include "recreational athletes," despite its focus solely on elite athletes.

Furthermore, the law fails to differentiate between "doping substances" and "narcotics." Although these are regulated under separate legal frameworks (Law No. 143/2000 and Law No. 104/2008), their practical distinctions remain unclear. For instance, both act on the brain, making the theoretical separation difficult to apply in real-world scenarios (Sandu et al., 2014, pp. 82–85).

In conclusion, although Romania has made important strides in aligning with international anti-doping standards, conceptual and legal ambiguities continue to hinder the effectiveness of its anti-doping strategies (Stănoiu, 2025, p. 264).

Spirituality Among Athletes and Its Role in Doping Prevention

In general terms, religion can be defined as "...a system of beliefs in a divine or superhuman power, accompanied by practices of prayer or other rituals directed toward such a power" (Argyle & Hallahmi, 1975). Sport psychology consultants often work with athletes who hold a wide range of values and beliefs concerning both their sport and their everyday lives. Inevitably, a significant number of these athletes hold spiritual or religious beliefs.

Research has shown that athletes rely on spirituality, religion, and prayer to cope with failure, adversity, and personal struggles—including injuries and psychological challenges—all of which impact their athletic careers.

The positive psychology movement assigns a central role to spirituality in promoting excellence in human activities and improving health and well-being. In positive psychology, constructs such as "flow" (Csikszentmihalyi, 1975) and "peak experiences" (Maslow, 1978) incorporate spiritual dimensions.

After 25 years of practice in sport psychology, Ravizza advocated for a more holistic approach to performance enhancement—one that includes physical, mental, emotional, and spiritual dimensions of an athlete's life and performance (Ravizza, 2002).

Religious Cognitive-Behavioral Therapy (RCBT)

Cognitive-behavioral therapy (CBT) is an active, time-limited, collaborative approach that addresses conscious processes and is widely used in treating psychological disorders such as depression, anxiety, phobias, and trauma (Beck, 1979; Beck, 2005; Corey, 2013). CBT is based on the premise that psychological problems arise from distorted cognitive processes.

Religious/spiritually oriented cognitive-behavioral therapy (RCBT) follows the same basic principles as CBT but incorporates religious beliefs to help clients reshape their cognitions and, consequently, their behaviors (D'Souza & Rodrigo, 2004; Koenig, 2012; Tan & Johnson, 2007).

Hypotheses

The objective of the present research is to assess the effects of religious cognitive-behavioral intervention on the psychological well-being and spirituality of athletes. The

following hypotheses aim to determine whether the proposed intervention can positively influence participants' levels of spirituality, depression, and anxiety—contributing to a deeper understanding of the role of spirituality in high-performance sport:

Hypothesis 1. Participants will report higher levels of spirituality in sport following the religious cognitive-behavioral intervention compared to baseline levels.

Hypothesis 2. Participants will report lower levels of depression following the religious cognitive-behavioral intervention compared to baseline levels.

Hypothesis 3. Participants will report lower levels of anxiety following the religious cognitive-behavioral intervention compared to baseline levels.

Participants in the Three Studies

For the three studies, a sample of 39 athletes or former athletes was utilized. Given the sensitivity of the data, participants were enrolled in the study using a randomly generated four-digit code. These athletes were members of Romanian sports clubs. Their disciplines included athletics, weightlifting, kayaking, and Greco-Roman wrestling. These participants had previously experienced doping suspicions, although most cases were not confirmed.

All participants were either suspected of doping or had confirmed cases of doping. Of the 39 participants, 10 (25.6%) were female and 29 (74.4%) were male. Their ages ranged from a minimum of 21 to a maximum of 38 years, with a mean age of 29.38 and a standard deviation of 5.17.

Procedures

The research was conducted in compliance with ethical standards of scientific practice. To prevent any potential harm to participants, the possible benefits and risks associated with participation were explained to them. The participants' consent to take part in the studies was not influenced in any way by the researchers.

Each participant was assigned a unique 4-digit code, which they were required to remember for completing the questionnaires at two time points (before and after the intervention). All measures were taken to maintain data confidentiality, and the database containing participants' responses included no identifying information.

Participants were divided into four groups and attended six sessions, each lasting 50 minutes. The sessions involved a religious cognitive-behavioral intervention, a type of therapy that combines standard therapeutic approaches with spiritual practices.

During the sessions, the aim was to change cognitive processes to alter behaviors or emotions by appealing to religious and spiritual beliefs or values. Generally, each session followed the same format: (1) objectives of the session; (2) pre-session activities; (3) materials required in the client's workbook; (4) agenda setting; (5) review of homework from the previous session; (6) introduction of topics for the current session; (7) exercises completed during the session; (8) homework for the following session; (9) session closure.

The topics of the six sessions, inspired by the model proposed by Ciarrocchi, Schechter, Pearce, and Koenig (Ciarrocchi et al, 2014), were as follows: SESSION 1: Psychological assessment and introduction to RCBT; SESSION 2: Behavioral activation: Walking by faith; SESSIONS 3, 4, 5: Identifying unnecessary thoughts: The battlefield of the mind; SESSION 6: Hope and relapse prevention.

Instruments Used in the Three Studies

Anxiety was measured using the *Beck Anxiety Inventory* (BAI) [30]. This inventory includes 21 items describing specific symptoms of anxiety: A1. Numbness or tingling; A2. Feeling hot; A3. Wobbliness in legs; A4. Unable to relax; A5. Fear of worst happening; A6. Dizzy or lightheaded; A7. Heart pounding/racing; A8. Unsteady; A9. Terrified or afraid; A10. Nervous; A11. Feeling of choking; A12. Hands trembling; A13. Shaky/unsteady; A14. Fear of losing control; A15. Difficulty in breathing; A16. Fear of dying; A17. Scared; A18. Indigestion; A19. Faint/lightheaded; A20. Face flushed; A21. Hot/cold sweats. Each item offers four response options: *Not at all*, *Mildly, Moderately*, and *Severely*.

Depression was measured using the Beck Depression Inventory [31]. The scale consists of 21 items, each describing specific symptoms of depression: D1. Sadness; D2. Pessimism; D3. Failure in the past; D4. Loss of pleasure; D5. Feelings of guilt; D6. Feelings of punishment; D7. Low self-esteem; D8. Self-criticism; D9. Suicidal thoughts or wishes; D10. Crying; D11. Agitation; D12. Loss of interest in others or activities; D13. Indecisiveness; D14. Lack of worth; D15. Loss of energy; D16. Changes in sleep patterns; D17. Irritability; D18. Appetite changes; D19. Difficulty concentrating; D20. Fatigue or loss of energy; D21. Loss of interest in sex. By reducing the responses to their essence, each item/question offers 4 response options: Not at all; Slightly; Moderately; Severely.

Spirituality in sports was measured using the *Sport Spirituality Test* (Dillon & Tait, 2004), which includes 10 items: SS1. "I use spirituality and religiosity to guide my character during sports"; SS2. "I use spirituality and religiosity to protect my health during sports"; SS3. "I use spirituality and religiosity to help me or my team win"; SS4. "I use spirituality and

religiosity to keep my team united"; SS5. "I use spirituality and religiosity to help me cope with emotional shifts caused by wins and losses"; SS6. "I use spirituality and religiosity to help with external pressures from coaches, teammates, supporters, or parents"; SS7. "I use spirituality and religiosity to resist temptations like alcohol and drugs"; SS8. "I use spirituality and religiosity to constructively manage mistakes made on the field"; SS9. "I use spirituality and religiosity to constructively manage mistakes made off the field"; SS10. "I use spirituality and religiosity to help me let go during the game." Each item offers four response options: *Almost never*, *Sometimes*, *Often*, and *Almost always*.

Results

Descriptive Analysis at Pretest and Posttest

Before the religious cognitive-behavioral intervention, the 39 participants had anxiety scores ranging from a minimum of 1 to a maximum of 45, with a mean of 16.54 and a standard deviation of 11.50. Depression scores ranged from a minimum of 3 to a maximum of 55, with a mean of 21.38 and a standard deviation of 15.53. Spirituality in sports scores ranged from a minimum of 18 to a maximum of 40, with a mean of 33.26 and a standard deviation of 7.34. Tables 1 and 2 present the total scores for anxiety, depression, and spirituality in sports before and after the religious cognitive-behavioral intervention.

Table 1. Descriptive Analysis at Pretest

	N	Minimum	Maximum	Mean	Standard Deviation
Anxiety	39.00	1.00	45.00	16.54	11.50
Depression	39.00	3.00	55.00	21.38	15.53
Spirituality in Sports	39.00	18.00	40.00	33.26	7.34

Table 2. Descriptive Analysis at Posttest

	N	Minimum	Maximum	Mean	Standard Deviation
Anxiety	39.00	1.00	45.00	16.26	11.02
Depression	39.00	3.00	52.00	20.87	14.75
Spirituality in Sports	39.00	20.00	40.00	33.51	6.92

Differences in Anxiety

Differences in anxiety levels before and after the intervention were analyzed. Participants reported a mean anxiety score of 16.26 after the intervention, compared to a mean score of 16.54 before the intervention. The effect size was found to be d = .37. These results

support the conclusion that athletes had a lower level of anxiety following the religious cognitive-behavioral intervention.

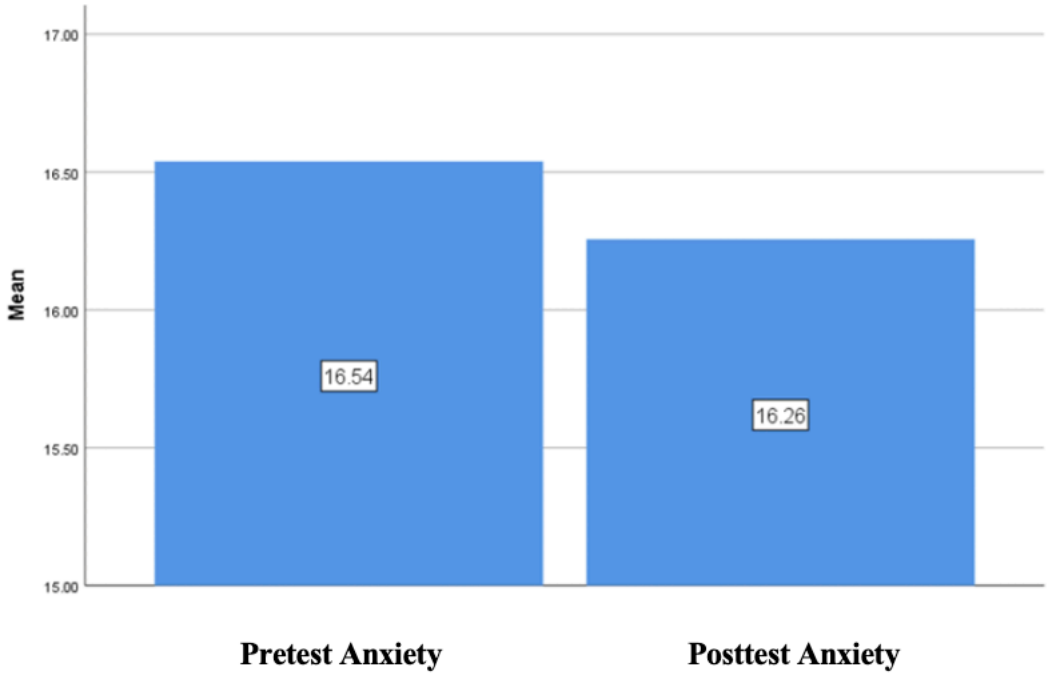

Figure 1. Differences in Anxiety at Pretest and Posttest

Differences in Depression at Pretest and Posttest

The differences in depression scores before and after the intervention were analyzed. Participants reported a mean depression score of 20.87 after the intervention, compared to a mean of 21.38 before the intervention. The effect size was d = .49. These results suggest that athletes experienced a decrease in depression following the religious cognitive-behavioral intervention.

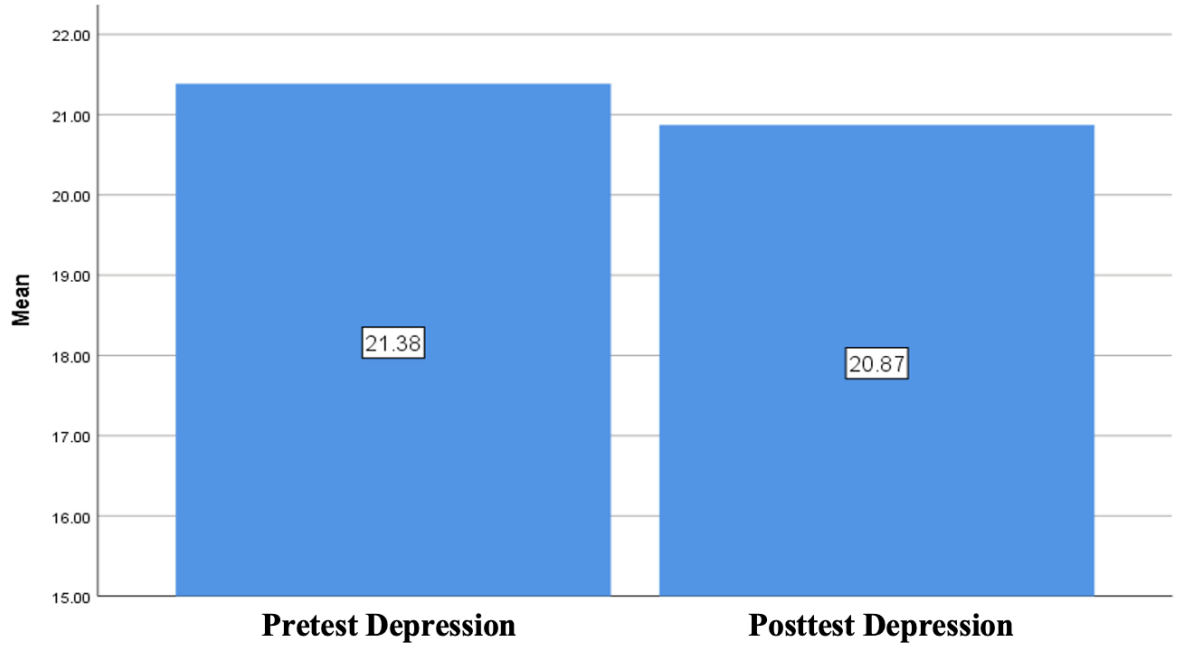

Figure 2. Differences in Depression at Pretest and Posttest

Differences in Relation to Spirituality in Sports

The differences regarding spirituality in sports before and after the intervention were analyzed. Participants reported an average spirituality in sports score of 33.51 after the intervention, compared to an average score of 33.26 before the intervention. The effect size was d = .43. The results suggest that athletes had a higher level of spirituality in sports after the religious cognitive-behavioral intervention.

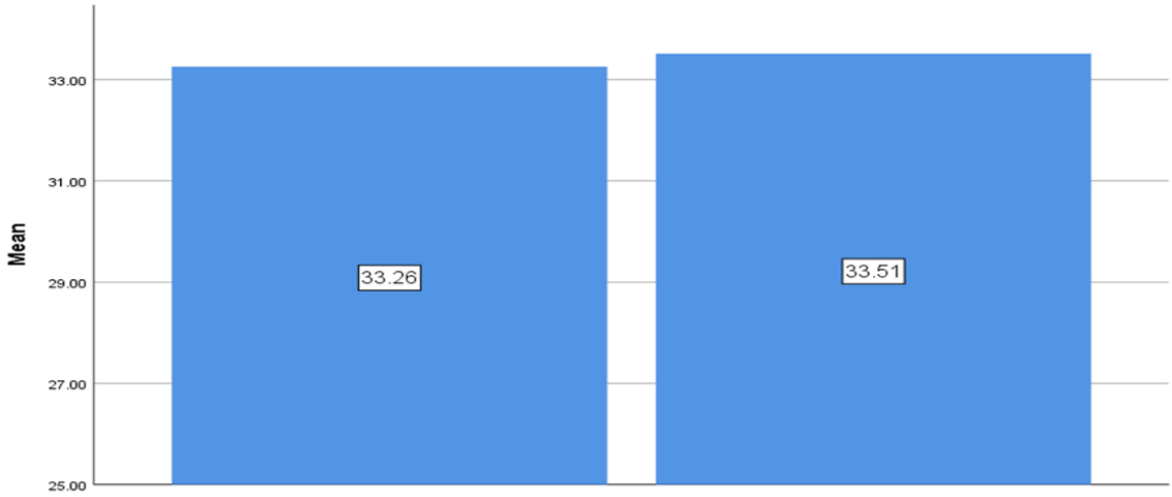

Figure 3. Differences in Relation to Spirituality in Sports

Internal Consistency

The internal consistency for the scales used in the three studies was analyzed using SPSS. According to the results, the anxiety scale at pretest, consisting of 21 items, had adequate internal consistency with a Cronbach's alpha of .93. The depression scale at pretest, consisting of 21 items, also showed adequate internal consistency with a Cronbach's alpha of .95. The spirituality in sports scale at pretest, consisting of 10 items, demonstrated adequate internal consistency with a Cronbach's alpha of .92. The anxiety scale at posttest, consisting of 21 items, had adequate internal consistency with a Cronbach's alpha of .93. The depression scale at posttest, consisting of 21 items, showed adequate internal consistency with a Cronbach's alpha of .95. The spirituality in sports scale at posttest, consisting of 10 items, also had adequate internal consistency with a Cronbach's alpha of .92.

Table 3. Internal consistency for the scales used in the three studies.

	Number of items	Cronbach's alpha
Anxiety pretest	21	.93
Depression pretest	21	.95
Spirituality in sports pretest	10	.92
Anxiety posttest	21	.93
Depression posttest	21	.95
Spirituality in sports posttest	10	.92

Correlations Between Variables

The correlations between the study variables at pretest and posttest were analyzed using the SPSS program. There was a statistically significant positive correlation between anxiety and depression at pretest. There was a statistically significant negative correlation between anxiety and spirituality in sports at pretest. There was a statistically significant negative correlation between depression and spirituality in sports at pretest. Similar results were obtained for the posttest variables. Table 4 shows the correlation between the variables of anxiety, depression, and spirituality before and after testing.

Table 4. Correlations Between the Variables of the Three Studies

Variables	1	2	3	4	5
1. Anxiety pretest					
2. Depression pretest	.66**				
3. Spirituality in sports pretest	-.37*	-.56**			
4. Anxiety posttest	.99**	.66**	-.37**		
5. Depression posttest	.65**	.99**	-.55**	.66**	
6. Spirituality in sports posttest	-.38*	-.54**	.99**	-.37*	-.53**

Note. ** $p < .01$

Network Analysis

Network Analysis for Anxiety

Network analysis was used to explore the interaction between the items of the scales and to identify the central items in the network of scale items. The network was estimated using JASP 0.11 version 2019 [Computer Software]. Additionally, centrality indicators were represented: degree (the sum of direct connections of a node), closeness (the average distance between a node and all other nodes in the network), and betweenness (how often a node lies between the shortest connection of two other nodes) [33]. Regarding the anxiety scale, according to the network analysis both at pretest and posttest, the items are completely independent. This result suggests that the symptoms of anxiety are independent of each other.

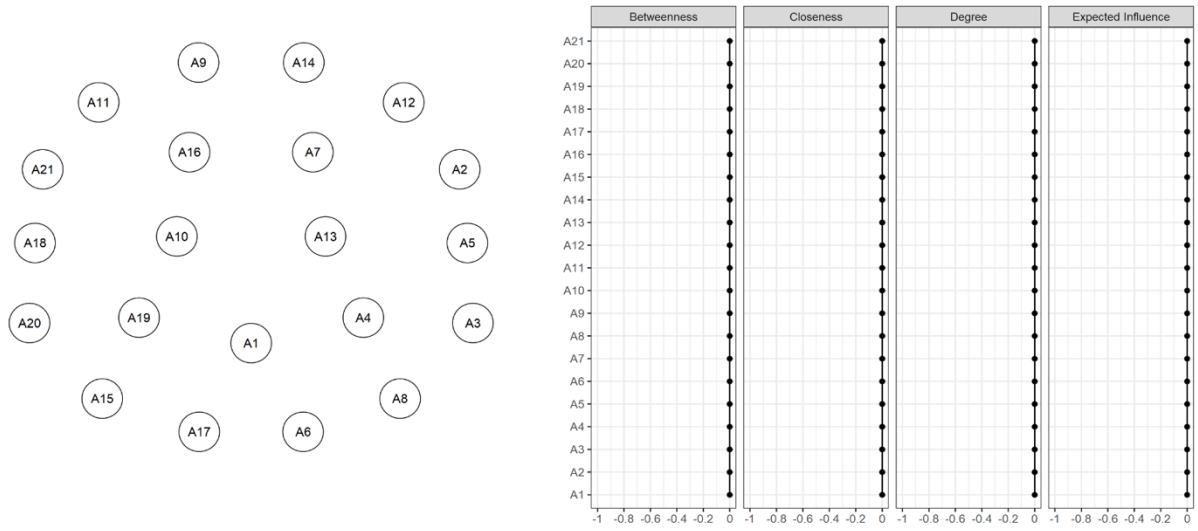

Figure 4. Network Analysis of the Items (Left) and Centrality Indicators (Right) at Both Pretest and Posttest.

Network Analysis for Depression

Before the intervention, the item with the highest centrality was D21 (loss of interest in sex). The same item, D21, also exhibited the greatest proximity, followed by D16 (changes in sleep patterns) and D15 (loss of energy). Lastly, the item with the strongest interconnectedness was again D21 (loss of interest in sex). The structure of the item network suggests that the central elements of depression among the athletes involved in the study were loss of interest in sex, loss of energy, and disruptions in sleep patterns.

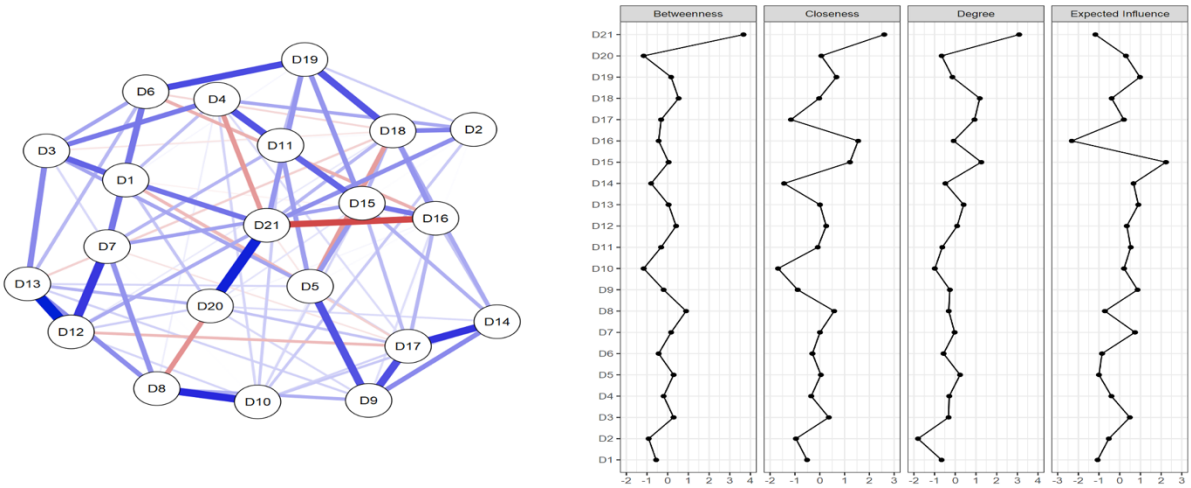

Figure 5. Network Analysis of Items (Left) and Centrality Indicators for Depression (Right) at Pretest.

After the intervention, item D21 still exhibited the highest closeness, followed by item D16 (changes in sleep patterns). Loss of energy was no longer a central item in the posttest. Ultimately, the item with the highest betweenness remained item D21 (loss of interest in sex). The structure of the item network suggests that the central elements of depression among the athletes in the study were loss of interest in sex and disruptions in sleep patterns. Loss of energy was no longer a central element, indicating potential improvements in daily energy levels following the religiously-oriented cognitive-behavioral intervention.

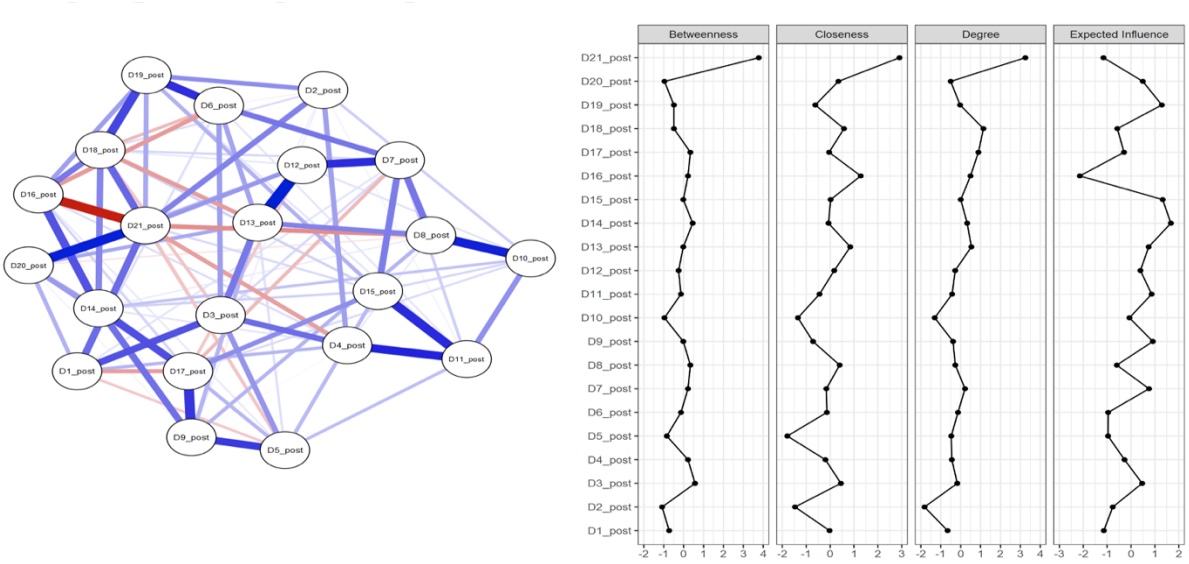

Figure 6. Network Analysis of Items (Left) and Centrality Indicators (Right) for Depression at Posttest.

Network Analysis for Spirituality in Sports

Before the intervention, the items with the highest degree were SS8 (“I turn to spirituality and religiosity to help me manage on-field mistakes in a more constructive way”), SS2 (“[…] to protect my health during sports”), SS10 (“[…] to help me let go of everything during the game”), and SS1 (“[…] to guide my character during sports”). The items with the highest closeness were SS1 (“[…] to guide my character during sports”), SS2 (“[…] to protect my health during sports”), and SS9 (“[…] to help me manage off-field mistakes in a more constructive way”). Finally, the item with the highest betweenness was also SS1 (“[…] to guide my character during sports”). The structure of the item network suggests that the central elements of spirituality in sports involve religiosity and spirituality as a guide for character, followed by health protection and mistake management.

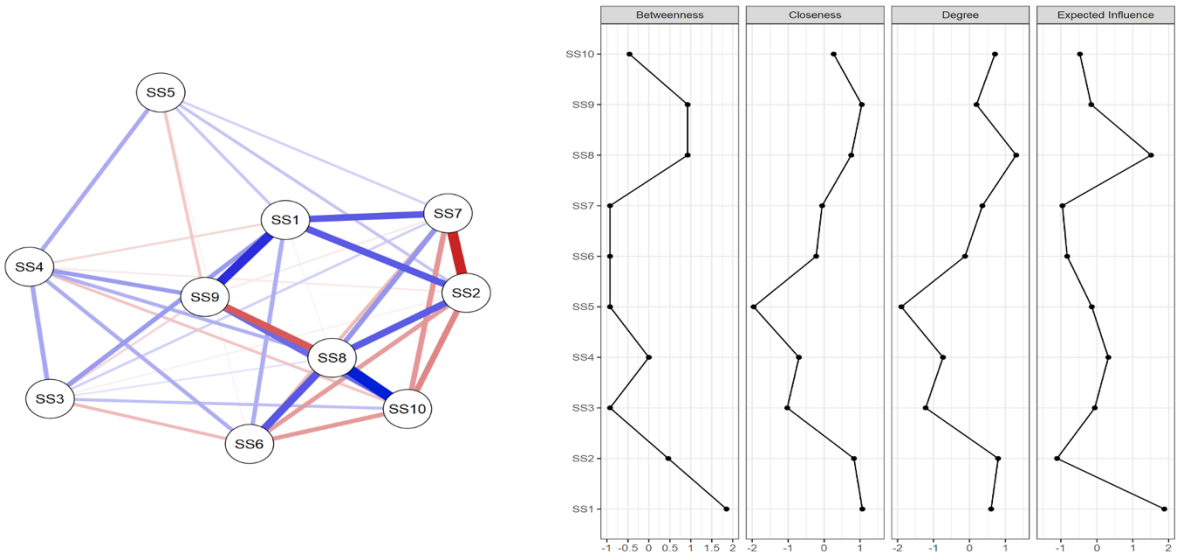

Figure 7. Network Analysis of Items (Left) and Centrality Indicators (Right) for Spirituality in Sports at Pretest

After the intervention, the items with the highest degree were SS8 ("[...] to help me manage my mistakes on the field more constructively") and SS1 ("[...] to guide my character in sports"). The items with the highest closeness centrality were SS8 and SS2 ("[...] to help me manage my mistakes on the field more constructively" and "[...] to protect my health during sports"). Finally, the item with the highest betweenness centrality remained SS8 ("[...] to help me manage my mistakes on the field more constructively"). The item network structure suggests that after the spiritual cognitive-behavioral intervention, the central element of spirituality in sports shifted to managing on-field mistakes, replacing spirituality and religiosity as a means of guiding athletes' character. These findings indicate that following the intervention, the central aspect of spirituality moved away from character guidance and toward fostering a more optimistic perspective on mistakes.

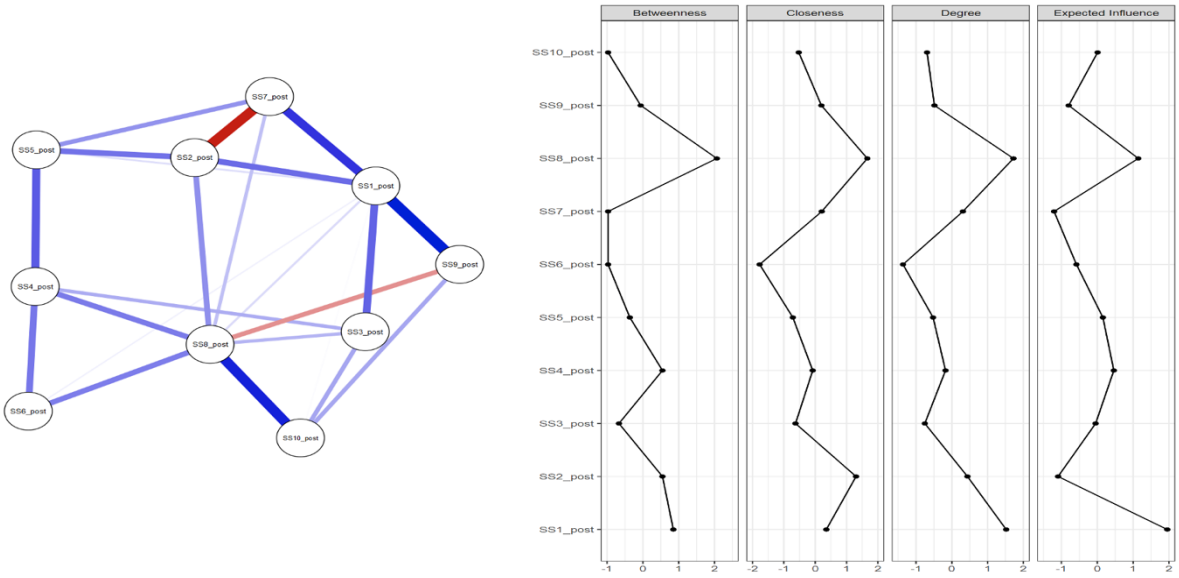

Figure 8. Network Analysis of Items (Left) and Centrality Indicators (Right) for Spirituality in Sports at Posttest

Discussion

The results indicated a statistically significant positive correlation between anxiety and depression at pretest, consistent with existing studies showing that these two mood disorders often co-occur. Previous research supports the notion that depression and anxiety frequently present simultaneously.

Additionally, the findings demonstrated a negative correlation between religiosity in sports and both depression and anxiety. These conclusions align with existing literature suggesting that religiosity or spirituality may serve as a critical protective factor when individuals face adversity.

Spirituality is believed to encourage individuals to view events with hope. Religious reinterpretation of stressful events can help individuals perceive negative experiences as opportunities to grow closer to the Divine or improve their lives. Moreover, religiosity or spirituality fosters a sense of belonging. For some individuals, religiosity fulfills the need for connection to a community, which can be experienced through prayer, meditation, or religious gatherings. Finally, spirituality or religiosity provides meaning to events through rituals, which offer a sense of purpose regarding difficult experiences and mark the beginning or end of such events.

The current study supported the positive effects of the religious cognitive-behavioral intervention. According to the results, athletes exhibited lower levels of depression and anxiety following the program. These findings are consistent with extensive research on the

effectiveness of traditional cognitive-behavioral therapy (CBT) in addressing anxiety and depression, even with brief interventions or group sessions.

Currently, CBT is considered the most extensively studied approach, with the most substantial evidence supporting its efficacy in reducing anxiety and depression. The results of this study suggest that similar effects can be observed in athletes with negative experiences related to doping. Consistent with the hypotheses, a significant effect was also identified for the increase in spirituality in sports. This result indicates that religious cognitive-behavioral intervention may have specific effects on the targeted elements.

Theoretical and Practical Implications

From a theoretical perspective, the research findings support the integration of religious or spiritual content into traditional cognitive-behavioral interventions. The results indicate that such an intervention may have a targeted impact on the specific components it addresses. In other words, the religious cognitive-behavioral intervention was associated with an increase in spirituality in sports.

The study's findings suggest that depression and anxiety could be addressed simultaneously in psychological interventions designed for athletes. The cognitive-behavioral approach can incorporate cognitive restructuring or behavioral changes targeting both depression and anxiety concurrently.

The results also highlight that sport psychologists can employ cognitive-behavioral interventions to mitigate the negative emotional consequences of doping or the suspicion of doping. This can be achieved through group interventions with a relatively small number of sessions.

An important practical contribution of the study is the indication that incorporating religiosity and spirituality elements into psychological interventions for athletes is beneficial.

Limitations and Future Directions

A direct comparison between traditional cognitive-behavioral interventions and those incorporating religious components has not been conducted. Consequently, it remains unclear whether integrating the spiritual dimension produces a stronger effect or whether the outcomes are comparable to those of standard interventions. Future research could explore this hypothesis by introducing a group that undergoes a conventional intervention and another that participates in a religiously integrated version of cognitive-behavioral therapy (CBT).

The study did not include either a control group or a placebo group. Future studies should incorporate these elements to test alternative explanations and enhance scientific validity. Additionally, including a placebo group would allow for the testing of the hypothesis that observed changes are not due to the intervention itself, but rather to participants' expectations.

Another significant limitation is the absence of an analysis of the psychological mechanisms through which the intervention impacts levels of depression, anxiety, and spirituality in the sports context. Future research could explore these intermediary processes by including mediating variables, thereby offering a deeper theoretical understanding of how spiritually-infused CBT influences athletes' emotional well-being and spiritual perceptions.

Conclusions

Recent scientific literature in fields such as sports medicine, neuroscience, and applied sport psychology highlights the need to investigate doping among athletes. A key concern is identifying factors that predict the use of banned substances to better understand which athletes are more vulnerable to such behaviors. Existing research has identified several predictors, including competitive pressure, perfectionist tendencies, a strong desire for success, and mood-related problems such as anxiety and depression. Since these disorders are associated with doping, it is necessary to explore ways to reduce them to lower the risk of substance use. Studies have also examined the negative effects of doping, which include health disorders, cognitive impairment, emotional dysregulation, and depressive symptoms. These findings underscore the importance of investigating interventions aimed at mitigating these effects.

One potential intervention approach is the integration of psychological therapies with spiritual components. Psychospirituality is regarded as a significant element for emotional balance and mental health support (Barton & Miller, 2015). Research indicates that in stressful or traumatic contexts (Bryant-Davis et al., 2012; Drescher & Foy, 1995), beliefs related to spirituality, meaning, and the notion that every experience serves a purpose can help individuals maintain psychological stability. Whether in individuals suffering from severe illness (Visser, Garssen, & Vingerhoets, 2010) or survivors of sexual abuse (Kennedy, Davis, & Taylor, 1998), spirituality appears to be an effective protective mechanism. In athletes, religion or spirituality may serve a similar role, reducing stress and contributing to better mental health. Previous studies have shown that athletes employ religious beliefs or spiritual rituals to cope with competitive pressure, defeats, or medical problems. Therefore, it is plausible that

spirituality is negatively associated with anxiety and depression and may support athletes' recovery following doping incidents or accusations.

Based on this context, the objective of the present research was to evaluate the effectiveness of a psychological intervention incorporating religious or spiritual elements in alleviating the negative effects associated with doping. The focus was on three variables essential to well-being—anxiety, depression, and spirituality in the sports context. The working hypothesis was that participants would show increased levels of spirituality and decreased levels of anxiety and depression following the intervention. The program included group sessions combining techniques from cognitive-behavioral therapy (such as cognitive restructuring, personal skills development, positive psychology methods, and stress and motivation management techniques) with spiritual elements such as prayer and religious reflection (Miller & Kerr, 2002; D'Souza & Rodrigo, 2004; Koenig, 2012; Tan & Johnson, 2007). Participants were actively involved through self-monitoring, cognitive restructuring exercises, psychoeducation, and activities focused on hope and positive thinking.

The study was conducted on a sample of 39 Romanian athletes or former athletes from disciplines such as track and field, weightlifting, canoeing, and Greco-Roman wrestling, all of whom had previously been suspected of doping. Although most were not sanctioned, all were included in the intervention program.

The results supported the initial hypotheses. First, a significant correlation was found between anxiety and depression both before and after the intervention, suggesting the frequent co-occurrence of these disorders. Second, religiosity in the sports context was negatively correlated with both emotional disorders, supporting the idea that spirituality may act as a protective factor against adversity, such as doping accusations. Theoretical explanations in the literature suggest that religious individuals tend to view life challenges as opportunities for growth and spiritual strengthening. Moreover, religion provides social support through community membership, participation in rituals, or collective activities, thereby enhancing one's ability to cope with difficulties.

The most important finding of the study is the positive effect of the intervention on participants: levels of depression and anxiety decreased, while scores related to spirituality in sport increased significantly. This is consistent with other meta-analyses supporting the efficacy of cognitive-behavioral therapy in reducing mood disorders. The novelty lies in the integration of a spiritual dimension within the psychological intervention—an approach still rare in current practice, despite clear evidence in the literature of its benefits.

This study makes an important theoretical contribution by demonstrating that CBT interventions can be enhanced through the inclusion of religious or spiritual beliefs, potentially improving individuals' adaptability to stress and adversity. The findings support the generalization of this intervention to other groups of athletes suspected of doping, thus extending the method's applicability.

An innovative aspect of the research was the use of network analysis to observe structural changes in psychological variables. For example, before the intervention, central depressive symptoms included low energy, decreased sexual interest, and sleep disturbances. After the intervention, low energy was no longer a central symptom, indicating a possible improvement in psychological vitality. Regarding spirituality in sport, prior to the intervention, the focus was on religious dimensions as moral guides. After the intervention, the emphasis shifted to managing athletic failures, suggesting a reorientation of spirituality toward self-compassion and acceptance, rather than rigid moral dimensions. However, interpretations derived from network analyses remain speculative.

From a practical standpoint, the findings offer applicable guidance for professionals in sport psychology. Spirituality-integrated CBT interventions may help reduce emotional disturbances triggered by doping or related accusations. The efficiency demonstrated with a small number of sessions and limited resources suggests that the method is viable in various contexts. Practitioners are encouraged to incorporate religious elements in interventions aimed at athletes, particularly when these elements may contribute to reducing anxiety and depression and fostering healthy spirituality in sports contexts.

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