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Empowering Sports Science Students: The Impact of Social Entrepreneurship Education on Social Entrepreneurial Self-Efficacy and Social Entrepreneurial Intention

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ABSTRACT

The present study was conducted to investigate the effect of social entrepreneurship education (SEE) on social entrepreneurial self-efficacy (SESE) and social entrepreneurial intention (SEI) of sports science students in a semi-experimental method. The research population of the study included 41 undergraduate sports science students of the University of Neyshabur, who were randomly divided into two experimental and control groups. The experimental group received SEE in eight sessions, while the control group received no intervention. Two main tools were used to collect data: the SESE and the SEI assessment scales. SEE was developed using Shahid and Alarifi's (2021) procedure and ran for ten ninety-minute sessions. Data analysis was done using the covariance test analysis. Results showed that SEE significantly affected SESE, so about 18% of post-test score changes are related to this training. In contrast, the effect of SEE on SEI was not statistically significant, which means that changes in SEI are not related to the impact of SEE. This study showed that SEE can significantly improve SESE, but its effect on SEI was insignificant and needs more research. To enhance the effectiveness of SEE on SESE, it is recommended to incorporate more practical components such as internships, real-world projects, and case studies. These hands-on experiences can provide sport sciences' students with the confidence and skills needed to succeed in social entrepreneurship.

Introduction

Entrepreneurship is seen as a critical factor and economic engine of every country, as it helps create new jobs and boost innovation and competition in the labor market (Barba-Sánchez et al., 2022). Entrepreneurship is recognized as a critical factor in countries' sustainable growth and development. This concept is essential, especially in developing countries, as it strengthens economies and

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improves living conditions (Naz et al., 2023). Entrepreneurial activities play a broad role in all industries and organizations and can help create a competitive advantage and added customer value (Duong, 2023). Entrepreneurship serves as a pivotal factor in the economic growth and industrial expansion of developing nations, contributing significantly to a robust and thriving economy (Chien-Chi et al., 2020). As a dynamic and unique industry, sports are inherently entrepreneurial and, due to its breadth and diversity, can create diverse opportunities in political, social, economic, and cultural contexts (Hassan, 2020). By leveraging the existing capabilities in the industry, it is possible to develop and advance different pay targets and create new values (Zakari et al., 2022). Entrepreneurship in the sports industry is recognized as a critical factor in creating value and can play an essential role in economic and social development (Boldureanu et al., 2020). This role demonstrates the importance and prominent role of entrepreneurship in the industry, which improves the economic situation and promotes social and cultural activities (Agyeman et al., 2021).

Entrepreneurship in sports involves developing new sports-related initiatives that change from merely commercial investments to opportunity-expanding processes, and its goal is to create valuable new networks that connect previous structures with new innovative systems (Ratten, 2018). This type of entrepreneurialism is known for working creatively to gather resources with new methods to launch a new business. In the meantime, some entrepreneurs focus only on financial benefits, while some other social and community-focused objectives, including non-profit and social enterprise forms, are considered. The role of sports in society is not limited to business and acts as a tool for social policy that bridges physical, intellectual, and religious differences. Due to its entrepreneurial nature is recognized as an essential social phenomenon with direct, indirect, and emotional effects (McSweeney et al., 2022; Moustakas & Reynard, 2023).

In sports, social entrepreneurship (SE) seeks to achieve profitable and non-profitable goals in line with social goals. This type of entrepreneurship encompasses a variety of social goals that may include innovative measures in the fields of education and health. Thus, sports can impact society more by connecting social and business issues. Social e-entrepreneurship works as a way to create value and reduce gaps in society. SE employs identifying opportunities with a social goal and, at the same time, providing social benefits (Luke & Chu, 2013). Generally, SE can be defined as knowing, evaluating, and exploiting opportunities rooted in society's primary and continuous needs (Pathak & Muralidharan, 2018).

SE in sports means pursuing creative and innovative solutions to solve social problems in sports or using sports. This process is pursued to create positive social impacts and improve the quality of life through sporting activities (Mohammadkazemi & Gholami, 2022). SE in sports works to create and preserve social values in sports in various non-profit organizations, such as associations, local groups, and sports federations. Based on valuable and socially robust ideas, this type of entrepreneurship serves essential social goals such as improving quality of life, fighting addiction, and improving health. Increased sports entrepreneurship, due to technological advances and global trends towards health activities, has led to a paradigm shift that contributes to solving socio-economic problems and improving quality of life using bottom-up approaches (Chell, 2007; Mair & Marti, 2006). Therefore, sport SE has attracted the attention of many policymakers, professionals, and researchers. For this reason, raising the level of SE activity has become one of the main focuses of academic and policy-making debates in different countries (Satar, 2016).

The importance of education and training for entrepreneurial development has been widely regarded and confirmed (Li & Wu, 2019; Ndofirepi, 2020). As a result, entrepreneurial education in higher education institutions and universities, professionals, and government policymakers worldwide have gained attention (Nabi et al., 2017). In particular, the increasing importance of sustainable development has recently seen the expansion of entrepreneurial education into the areas of sustainability and SE in order to generate awareness and shape attitudes and expectations toward social problems (Satar & John, 2016).

As a result, universities have begun to engage in and impact this field by offering social entrepreneurship education (SEE) and business-related education programs (Kremel & Wetter Edman, 2019). For the same reason, students' interest in SEE has increased (Kirby & Ibrahim, 2011; Salamzadeh et al., 2013). In addition, in the last decade, academic programs and courses of SE have expanded in most developed and many developing countries (Lawrence et al., 2012), but

more work still needs to be done. One of the main objectives of this research is to educate and train social entrepreneurs in the field of sport. SE shares core principles of business management and entrepreneurship (Choi & Majumdar, 2014; Satar et al., 2016; Satar & John, 2016). Thus, understanding and influencing an individual's social entrepreneurial intention through the intervention of SEE can have a long way to go in developing new social entrepreneurs. Certainly, SE, as part of the curriculum, will develop and replicate exciting approaches to social innovation as a whole (Thomsen et al., 2018).

There is considerable experiential evidence of entrepreneurial goals, intentions, and mindsets that illustrate the underlying principles of entrepreneurial behavior. That proves a positive correlation between entrepreneurial education and entrepreneurial intention in different fields. Many studies have paid to survey undergraduate and graduate students, as these groups have been regarded as appropriate statistical samples because of their increased inclination to think about their post-study jobs. Also, research on social entrepreneurial intention (SEI) shows that social entrepreneurial mindset and education have positive relationships with the determinants of SEI (Ahuja et al., 2019; Nugroho et al., 2019; Rambe & Ndofirepi, 2021). SE aims to create a social enterprise to create social change through innovation (Tran et al., 2020).

Simply put, the SEI can be understood as the goal of an individual to start an investment to create social change in society (Chipeta & Surujlal, 2017). In the current business scenario, this concept is fundamentally connected. Therefore, it is necessary to incorporate it into teaching and learning as a critical competence to be developed by socially committed human capital. Furthermore, students at all educational levels should have a general entrepreneurial mindset that requires sustainable development (Pollard & Wilson, 2014). Considering the preceding, entrepreneurial intention can be seen as a vital introduction to business behavior and SE. In addition, it has been acknowledged that entrepreneurial intention is a growth-focused mindset (Pollard & Wilson, 2014) that has obvious benefits in terms of improving risk tolerance, enthusiasm, innovation (Mauer et al., 2017), social passion (Satar & Natasha, 2019), and other entrepreneurship orientation elements. Subsequently, the development of entrepreneurial intention helps to enhance the entrepreneurship skills of young entrepreneurs and students at all levels of education (Schaltegger & Wagner, 2011).

Research in business entrepreneurship and SE collectively indicates that intention is a crucial determinant of individuals' entrepreneurial behavior. For this reason, SEI's development is a top priority in all SE educational and learning plans. Experts must be exposed to conditions in which their entrepreneurial behavior encourages them to engage in SE. In business research, entrepreneurship is usually defined as discovering, evaluating, and exploiting opportunities to produce goods and services. This definition emphasizes creating and exploiting opportunities to provide products and services that can create economic and social value (Shane, 2012). In addition, entrepreneurial skills have been emphasized as part of the general skills needed to succeed in dynamic modern careers (Savickas et al., 2009). For example, managing a career in an impersonal and obscure context and responding to new opportunities arising from technological changes requires entrepreneurial thinking and behavior. In other words, this type of thinking and behavior can help different generations become producers of positive career advancement as tools to drive tremendous social change. It is generally accepted that entrepreneurial self-efficacy (ESE), which refers to an individual's belief in their ability to perform tasks and roles to create results, plays a fundamental role in this process. This concept helps individuals deal with entrepreneurial challenges more confidently and use new opportunities (Chen et al., 1998).

ESE determines whether individuals pursue entrepreneurial career paths or demonstrate entrepreneurial behavior. According to most experts, self-efficacy depends on its specific field; for example, it may be related to a particular behavior or consequence, such as a person's occupation or creative tasks. This definition is consistent with Bandura's (1997) conception of this structure. One of the types of self-efficacy related to the field of work is ESE. Similarly, ESE has been presented as a critical psychological structure in entrepreneurship research. This psychological structure enables individuals to face entrepreneurial challenges with greater confidence and effectively leverage existing opportunities (Miao et al., 2017), which influences motivation, intention, behavior, and performance of entrepreneurship and is also regarded as an essential consequence of

the entrepreneur education goals. Following Social Cognitive Theory (Bandura, 1997), researchers argue that entrepreneurial education provides opportunities for mastery experiments, vicarious learning, social persuasion, and judgment of one's physiological status (Zhao et al., 2005). For example, business designs and live case studies enhance students' active mastery. Also, education and training, by seeing successful patterns, provide opportunities for improvised learning. However, although Shinnar et al. (2014) found that undergraduate students' involvement in entrepreneurial education has given them a marketplace to develop higher ESE beliefs, they also found that this development was only statistically meaningful for men. Naveed et al. (2021) conducted a study to examine the impact of individual SE orientations and SEE on SEI among students. The findings of this study show that SE orientations play an essential role in stimulating SEI, and SEE, as an adjustable factor, strengthens this relationship. The practical outcomes of the study suggest that universities should pay more attention to SEE, and governments should also adopt policies to encourage the launch of SE activities to solve social problems.

Bux and Van Vuuren (2019) studied the effect of entrepreneurship education on the development of self-efficacy and entrepreneurship intentions as predictors of entrepreneurial activities in young people. Research findings have shown that entrepreneurial education has a positive relationship with self-efficiency and entrepreneurial intentions, and this relationship is more robust in long-term programs. This research provides practical advice on the type of entrepreneurial education schools should provide. It adds to the existing theoretical knowledge about the impact of entrepreneurial education on self-efficacy development.

Hockerts (2018) conducted a study on the impact of SE experiential education on the formation of intentions in students. The study examines how, through experiential learning, SEE can boost students' inclination to start social businesses. The findings suggest that participating in these courses increases self-efficiency, perceived social support, and SEI. In their research, Norouzi Seyed Hossini et al. (2024) identified and explored new opportunities for innovation, growth, and participation of the community in sports entrepreneurship and explained that by adopting sustainability, technology, health-related facets of athletes, social participation, e-sports, and sports tourism, entrepreneurs can open up new potential for growth, innovation, and social impact in the sports industry. Khosravizadeh et al. (2021) studied factors affecting SE in sports associations and clubs. The results showed that innovation, taking entrepreneurial action, risk-taking, organizing entrepreneurship, identifying and exploiting opportunities, and initiative plans impact the SE of sports clubs and associations. Safaei and Eslami Marzanklate (2021) researched to examine the impact of sports entrepreneurship education on their motivation for self-determination and social well-being with the role of mediators of skills in sports science students. Results showed that sports entrepreneurial education has a meaningful impact on skills development and social well-being, with the role of skill mediators among sports science students. Karimi et al. (2021) studied the qualitative implications of SE in sports. Based on the findings, the implications of SE in sports include economic, social, cultural, and technological implications. It is therefore recommended that based on the implications of SE in sports, managers and national officials focus their policies on the development of SE. Naderian Jahromi and Pazhouhan (2021) concluded that technological, cultural, executive educational, and research policies and individual factors are effective in the development of entrepreneurship in research titled Analysis of the Role of Entrepreneurship Education in the Employment of Sports Science Graduates, As well as teaching entrepreneurial thinking and culture, holding digital entrepreneurship training workshops, e-business, and sports startups can be valuable tools in creating entrepreneurial thinking, creating new and diverse careers, and employing sports graduates. Ehsani et al. (2018) identified the dimensions of SE in sports. They concluded that employment creation, social change by athletes, women's participation in sports, social empathy with disabilities, volunteer sports, and charity activities were identified as the dimensions of SE in sports.

Today, sports' uniqueness and entrepreneurial nature are recognized as opportunities to start diverse businesses and create employment in the sports industry. This illustrates the industry's enormous economic potential and includes money from sporting events, goods, sponsorships, and media rights. Furthermore, businesspeople in this industry frequently create brand-new goods, services, and technological advancements that improve the sporting experience. For instance,

improvements in sports analytics and wearable technologies have completely changed how athletes practice and compete (Hammerschmidt et al., 2023). Therefore, there are many different business prospects in the sports industry, ranging from managing sports facilities and producing sports equipment to creating digital platforms for sports content and providing online fitness coaching. Additionally, the predicted $500 billion market value of the global sports business makes it an important economic engine (Hammerschmidt et al., 2023). These characteristics not only contribute to the creation of economic profit but also create social and cultural values. However, due to the intrinsic complexities of the sports industry, the entrepreneurial efforts of individuals and organizations face more challenges. Some entrepreneurs have failed after a period of activity due to a lack of general knowledge about sports and educational limitations. Also, the need for social acceptance for some sports professions can create problems for sports entrepreneurs. Given the importance of the sports sector in the growth of the economy and employment and the sector's role in youth excellence, SEE in sports can help with careful planning for the launch and development of sports and policy-making suitable for the development of the sports business environment. With increased inclination, intent, and commitment to entrepreneurial activities in the sports industry, the need to empower people and guide them entrepreneurially makes them essential for success in implementing the entrepreneurship process. SE benefits from typical business and entrepreneurial strategies.

Although these two fields have many similarities, there are distinctive lines of difference between them. For example, unlike conventional companies, SE companies are recognized for their unique individual methods of trading goods and services, prioritizing social goals and non-distributed constraints. These factors create unique individual challenges in balancing social impact and financial sustainability. Therefore, the analysis and examination of the effects and consequences of SEE compared to the broader field of entrepreneurial education is an attractive topic for further investigation. In today's world, sports, as a significant social and economic phenomenon, have provided countless opportunities for entrepreneurship and innovation. The industry brings its unique characteristics, the possibility of creating employment, and the production of social and cultural values. The particular complexities and dynamics of the sports industry have created many challenges for entrepreneurs in the field. These challenges include a need for adequate general knowledge in sports management and marketing and educational limitations in sports entrepreneurship, leading to the failure of many entrepreneurial efforts. These issues double the importance of educational and entrepreneurial empowerment. This issue is of greater importance, especially in the case of SE, which, in addition to economic profitability, also focuses on achieving social goals. SE companies with unique individual business models and priorities for social goals face challenges such as balancing social impact and financial sustainability. The need for sufficient research in the field of SE in sports, especially in the education and empowerment of sports science students, requires more in-depth study and examination. The study of the impact of SEE on social entrepreneurial self-efficacy and social entrepreneurial intention among students of this discipline can be a practical step toward developing and strengthening the sport’s entrepreneurial ecosystem. The study, aimed at identifying and analyzing these impacts, seeks to provide ways to improve educational and policy-making processes in sports entrepreneurship. Therefore, given the above and the lack of research in the field of SE in sports, this study aims to educate students in SE and examine the impact of this education on the SESE and the SEI among students in sports sciences.

Methodology

The current research is semi-experimental, carried out by pretest-posttest method with a control group. Because young people show more interest in SE (Aure, 2018), and on the other hand, in most of the experimental studies conducted related to SEI, young people (aged between 18 and 34 years), especially students, are used as a study population (e.g., Aure, 2018; Ip et al., 2017; Rambe & Ndofirepi, 2021; Tiwari et al., 2017). Hence, the undergraduate sports science students of the University of Neyshabur were selected as the research population. G*Power Version 3.1.9.2 software was used to determine the sample size based on statistical power analysis. For this purpose, the sample size based on the statistical test used in the research, the first type error of 0.05, the statistical power of 0.8 and the effect size of 0.71 (based on previous studies) were obtained

equal to 41 subjects. 41 subjects were selected by a targeted method and randomly replaced in two experimental group (*n=21*) and control group (*n=20*). Randomization was performed with a computer-generated randomized sequence of group allocation created. The experimental group underwent SEE for 10 sessions, but the control group received no intervention. The criteria for entering the intervention included being a undergraduate sports science student, have not been trained in the field of entrepreneurship and social entrepreneurship before, and receiving a voluntary and informed consent, as well as the criteria for leaving the research included the absence of more than one session and the lack of interest to continue training.

The tools and methods of gathering data in this research are carried out in two ways:

Social Entrepreneurial Self-Efficacy (SESE) Scale: To evaluate the SESE of the research samples, the items used in the research of Hockerts (2018) were used. This construct has three items on a seven-point Likert scale (1: strongly disagree - 7: strongly agree), the validity and reliability of which have been confirmed among different samples (e.g., (Ip et al., 2017; Ukil, 2022). In the present study, the scale's reliability was obtained using Cronbach's alpha coefficient of 0.81.

Social Entrepreneurial Intention (SEI) Scale: To evaluate the SEI of the research samples, three items adapted from the entrepreneurial intention questionnaire of Liñán & Chen (2009) were used. In various research, this questionnaire has been used as a valid and reliable tool to measure the level of entrepreneurial intention of people, which can be referred to the research of Tiwari et al. (2022), Ukil &Jenkins (2023) and Ukil (2022). This questionnaire is compiled on a seven-point Likert scale (1: disagree entirely - 7: completely agree). The scale's reliability was obtained using Cronbach's alpha coefficient of 0.86 in the present study.

The questionnaire items were validated by nine professors of sports management, who also attested to the questionnaire's desirable phrasing, which avoided technical and specialist phrases and used clear, understandable language. Additionally, the content validity was assessed using the quantitative relative content validity approach. The findings validated the questionnaires' content validity by demonstrating that the items were required for research instruments.

The Shahid & Alarifi (2021) proposal protocol was employed for entrepreneurial education. The protocol covering the following three main contexts and topics. Management (planning skills, communication skills, and soft skills). Social entrepreneurship (socially entrepreneurial objectives and goals, social innovation, social value creation, social responsibilities, identification and recognition of opportunities, sustainable business design, networking and team building, and social impact assessment). Entrepreneurship (idea generation, creativity and innovation, new product development, research and development processes, and legal aspects of business creation). The educational program was conducted in 10 sessions that lasted 90 minutes. The process of each Session included a review of the tips and content of the previous Session, direct education through lectures, group discussion and summarizing of the Session, and a variety of intervention methods, including lectures, group discussions, and intellectual challenge (Table 1). It should be remembered that the participants in the group did not receive any other type of intervention during the sessions.

This research questionnaire was provided to the research samples after being prepared in person. To ensure the voluntary participation and informed consent of the study participants, they were fully and accurately informed about the research objectives, related procedures, possible risks and their right to withdraw from the research process at any time without any consequences. Also, to maintain privacy and confidentiality of information, questionnaires were designed without mentioning names and surnames to ensure non-disclosure of information, and participants were assured that their answers would only be used for presentation in academic research. After collecting the research questionnaires, according to the instructions for each, information was extracted, scored, and converted into measurement scales.

Table 1. General titles of educational sessions

1st Session	Concepts, principles, and basics of entrepreneurship, types of entrepreneurships, and expressing the characteristics of SE and sports entrepreneurs
2nd Session	Foresight, planning, and goal setting
3th Session	Recognition and identification of opportunities in SE

4th Session	Issues of starting businesses (legal aspects)
5th Session	Business management in sports (communication and soft skills)
6th Session	Ways to provide ideas and resources for SE
7th Session	Definition of creativity and innovation, creativity techniques, types of innovation
8th Session	Social innovation, creating social value and social responsibilities
9th Session	Sustainable business model design
10th Session	Networking and team building in SE

Descriptive statistics methods (mean and standard deviation) were used to describe the research variables, and covariance analysis was used to test the hypotheses. Covariance analysis is a comprehensive type of variance analysis in which, while comparing the averages of one or more groups and estimating one or more independent variables, the effect of one or more control variables, intervening variables, and covariances is removed from the equation. This statistical analysis allows the effect of an independent variable on the dependent variable to be examined while removing or eliminating the effect of another variable. Considering that the researchers wanted to eliminate the effects of the pre-test in this research, they considered it a covariance variable and used the analysis of the covariance test. All statistical analyses were performed using SPSS version 26 software.

Results

The average age of the study samples in the experimental group was 21.95±1.431 years, and in the control group was 21.40±1.095 years. The information related to the demographic characteristics of the participants in the research according to the experimental and control groups is given in Table 2.

Table 2. Demographic characteristics

Demographic characteristics			**f***	**%f****
Experimental group	Gender	Female	13	61.91
		Male	8	38.09
	Mother's level of education	Diploma and below	14	66.67
		Associate degree	0	0
		bachelor's degree	5	23.81
		Master's degree and above	2	9.52
	Father's level of education	Diploma and below	14	66.67
		Associate degree	2	9.52
		bachelor's degree	4	19.04
		Master's degree and above	1	4.77
	Entrepreneurship and Business Creation History	Yes	7	33.33
		No	14	66.67
Control group	Gender	Female	12	60
		Male	8	40
	Mother's level of education	Diploma and below	11	55
		Associate degree	0	0
		bachelor's degree	6	30
		Master's degree and above	3	15
	Father's level of education	Diploma and below	7	35
		Associate degree	4	20
		bachelor's degree	5	25
		Master's degree and above	4	20
	Entrepreneurship and Business Creation History	Yes	4	20
		No	16	80

* f: Frequency
** %f: Percentage frequency

The average pre-test and post-test scores of SESE and SEI in the experimental and control groups are shown in Table 3.

Table 3. Mean and SD of SESE and SEI

Variable	Group	M±SD (Pre-Test)	M±SD (Post-Test)
SESE*	Experimental	5.17±0.841	5.81±0.879
	Control	5.88±0.728	5.58±0.954
SEI**	Experimental	4.63±1.048	5.25±0.788
	Control	5.12±0.860	5.15±1.046

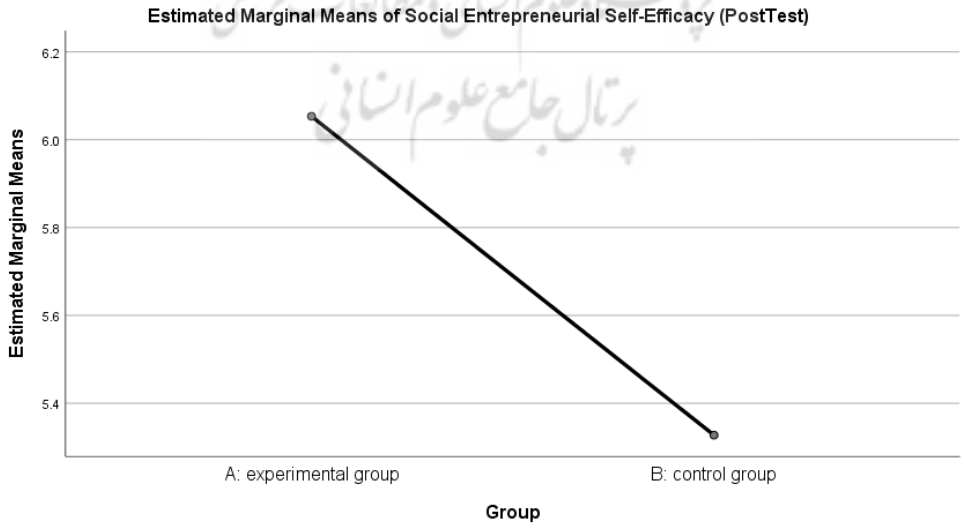
* SESE: Social Entrepreneurial Self-Efficacy
** SEI: Social Entrepreneurial Intention

For the statistical analysis of the data, the presuppositions of the covariance test analysis were first examined. The Shapiro-Wilk test was used to check the data distribution, and the pre-test and post-test scores of both primary research variables had a normal distribution ($p>0.05$).
The interaction of the independent variable with the covariance variables was investigated to check the homogeneity of the regression slope. According to the significance level ($p=0.286$), the interaction of the independent variable (group) with the variance variable (pre-test) in the SESE is not significant. Also, the independent variable's interaction with the SEI's variance variable was insignificant ($p=0.126$). Therefore, the condition of homogeneity of regression slopes is established to perform covariance analysis.
The results of Levin's test for the SESE ($P=0.444$, $F=0.598$) and for the SEI ($p=0.712$, $F=0.139$) confirmed the assumption of equality of variances, and the difference of variances was not statistically significant.

Table 4. The results of covariance analysis of the effect of SEE on SESE and SEI

Source		Sum of Squares	df	Mean Square	F	Sig.	Eta
Group	SESE	4.450	1	4.450	8.154	0.007	0.177
	SEI	1.020	1	1.020	1.517	0.226	0.038

According to the results in Table 4 and the statistical control and elimination of the auxiliary random variable (pre-tests), in the SESE, the calculated significance level is less than the alpha level of 0.05; Therefore, the test statistic is statistically significant. The effect size, which is synonymous with the correlation square (r^2), is equal to 0.177, which means that about 18% of the changes in the post-test scores of SESE are related to the effect of SEE. However, in the SEI, the significance level obtained is insignificant. Therefore, the test statistic and effect size are insignificant, and the changes in the SEI post-test scores are unrelated to the effect of SEE.



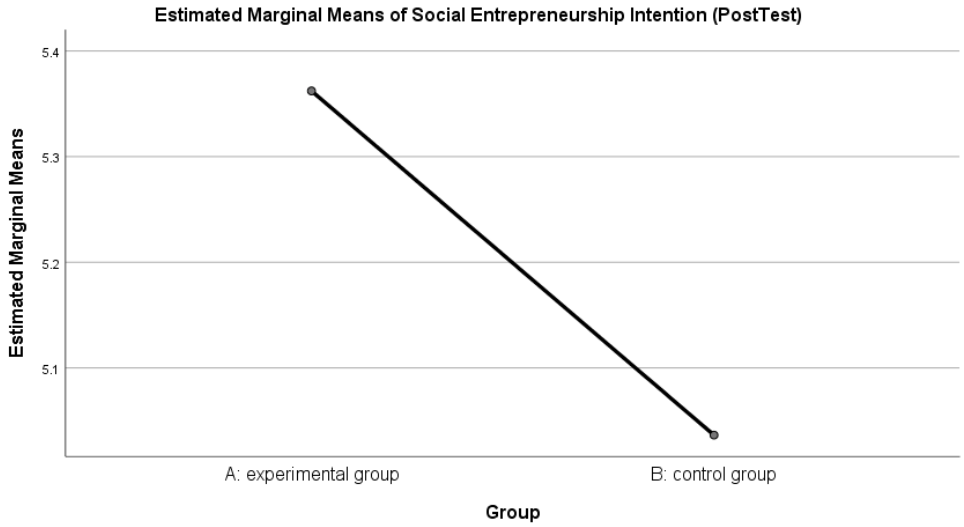


Figure 1. Estimated Marginal Means of SESE and SEI

Discussion and Conclusion

This study investigated the effect of SEE on SESE and SEI of sports science students. The primary purpose of this study was to investigate whether SEE can act as an effective educational intervention and lead to an increase in SESE and SEI among sports science students. Using appropriate statistical methods and analyzing the collected data, this research evaluated the significance of these changes and the impact of the education above. The results showed specific differences in the effect of education on SESE and SEI, which will be discussed and concluded about these findings.

The findings of this study demonstrate that SEE plays a pivotal role in enhancing SESE among sports sciences students. The significant increase, with about 18% of post-test score changes attributed to this training, suggests that targeted educational interventions can boost students' confidence in their ability to engage in SE. This result aligns with existing literature indicating the positive relationship between entrepreneurship education and self-efficacy. By providing the necessary skills, knowledge, and frameworks, SEE equips students to tackle social challenges through entrepreneurial ventures. The increase in SESE likely fosters greater innovation and problem-solving, particularly in addressing societal needs within the realm of sports and physical education.

The studies of Hockerts (2018), Bux & Van Vuuren (2019), and Naveed et al. (2021) have confirmed that these education and training increase self-efficacy and entrepreneurial intentions and play an influential role in strengthening individual beliefs in their abilities. SESE refers to a person's belief in his ability to perform entrepreneurial tasks and roles in the social field successfully. SEE, as an educational intervention, has been used to increase self-efficacy. According to the findings, the SESE of sports science students has increased significantly after completing the educational course. The research underscores the effectiveness of SEE in boosting SESE, suggesting that educational interventions can create socially-driven entrepreneurs. This has implications for both curriculum design and broader efforts to encourage social impact through entrepreneurship. So, Universities should incorporate SEE into sports science programs to foster entrepreneurial mindsets and skills early on, particularly focusing on hands-on, experiential learning.

The results of this research, which show that SEE did not significantly affect SEI among sports science students. This result suggests that SEE alone may not be sufficient to directly influence students' intention to engage in social entrepreneurship, despite its impact on their self-efficacy. This result aligns with those of Omorede (2014), who found that SEE's influence on SEI was minimal due to factors like personal motivation and external social contexts. Similarly, Bae et al. (2014), observed that while entrepreneurship education impacts self-efficacy, its direct relationship with entrepreneurial intentions is often unclear. Intention to start social enterprises may require not only self-belief but also the alignment of external incentives, resources, and clear entrepreneurial

pathways. In contrast, studies like Ahuja et al. (2019), Nugroho et al. (2019), and Rambe and Ndofirepi (2021), report that SEE had a significant positive effect on SEI, suggesting a robust link between educational interventions and entrepreneurial motivation. The differences between these findings could be attributed to the duration and depth of the SEE interventions. Several factors can cause the non-significance effect of SEE on SEI in this research. First, it should be noted that the intention of social entrepreneurship, as a complex concept, is influenced by several factors, including individual characteristics, beliefs, past experiences, and even the social and cultural environment.

For this reason, SEE alone may not have a significant effect on changing people's intentions. While our study used a shorter, semi-experimental method, changes in SEI may need more time to emerge and be observed, and results after educational courses may need more time for these effects to emerge. Individual differences are another factor that cannot be ignored. Some students may not want to pursue this path due to personal preferences or fear of the risks associated with entrepreneurship, even if the training has boosted their confidence and skills. Additionally, cultural and contextual variations between student populations could explain the discrepancy, as factors like socioeconomic background and institutional support likely play roles in shaping SEI.

Finally, SEE has effectively increased SESE, but this education has not significantly affected SEI. These results highlight the importance of paying attention to educational content and methods and show that different educational methods and approaches may be needed to strengthen more motivational elements to increase the intention of social entrepreneurship. The current content of SEE cannot effectively influence entrepreneurial intention. Therefore, it is necessary to update the educational content and adapt it to students' specific needs and expectations. This process should include a detailed analysis of student's educational and professional needs. To improve the effectiveness of education, it should include practical examples, real scenarios, and applied skills related to real challenges in the field of SE. It is suggested that education courses include more practical and experimental activities to improve the effect of education on SESE and SEI. These activities can include hands-on workshops, group projects, and hands-on real-world experiences. These methods allow students to test their skills in practice and face real challenges, which can help boost their confidence and abilities.

Another suggestion of this research is the continuous improvement of educational programs. In this direction, it is recommended that periodic evaluations of the effects of education on SESE and SEI be conducted. These evaluations should include data collection related to educational outcomes and student feedback. Using various evaluation tools such as surveys, interviews, and statistical analysis can help identify the strengths and weaknesses of educational programs and identify areas for improvement. It is suggested that support and counseling programs be designed to support students under SEE. These programs can include individual and group counseling, creating support networks, and providing the necessary resources to pursue and develop social entrepreneurship skills. These measures can increase motivation, strengthen self-efficacy, and solve possible problems that students may face.

Considering the non-significance of the effect of SEE on SEI, it is necessary to conduct more analyses to understand this issue better. These analyses should identify the factors that may influence the SEI. In particular, examining individual characteristics such as motivations, beliefs, personal experiences, and environmental factors such as social support, available opportunities, and economic conditions can help to understand the obstacles and opportunities in this field. Conducting field research and using tools such as questionnaires and in-depth interviews can provide valuable information about the various effects of education on entrepreneurial intention. Also, it is necessary to add additional and specialized skills to education programs. These skills include strategic management, and communication skills necessary for increasing entrepreneurial intention. Providing specialized training in these fields can strengthen individual capabilities and better prepare students to face the challenges of SE. Holding specialized courses and targeted consultations can also help to identify and develop critical skills.

Ethical Considerations

Compliance with ethical guidelines: Ethical points have been observed.

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