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ASSESSMENT OF ENTREPRENEURIAL ABILITIES, ACHIEVEMENT MOTIVATION, AND GENERAL HEALTH OF FUTURE PRESCHOOL TEACHERS

Abstract: This study explores the relationship between mental health, entrepreneurial abilities, and achievement motivation among future preschool educators, a group rarely examined in this context. The sample consisted of 133 students ($M_{age} = 21.5$, range = 20-36) enrolled in the “Preschool Educator” program at the State University in Novi Pazar. The following instruments were used: the Entrepreneurial Abilities Scale (Harper, 1991; Grozdanić et al., 2007), the Achievement Motivation Scale - MOP2002 (Franceško et al., 2002), and the General Health Questionnaire - GHQ (Goldberg, 1972). Participants perceived themselves as entrepreneurial ($M = 30.69$, $SD = 4.29$), with the highest scores on goal-setting, perseverance, and competitiveness. A strong positive correlation was found between achievement motivation and entrepreneurial abilities, $r(131) = .63$, $p < .001$. Negative correlations were observed between achievement motivation and mental health, $r(131) = -.34$, $p < .001$, as well as between entrepreneurial abilities and mental health, $r(131) = -.29$, $p = .005$. The results of this research highlight the importance of supporting the mental health and achievement motivation of future preschool educators, as these factors are closely linked to their entrepreneurial potential. By encouraging goal-setting, perseverance, and self-initiative, we not only strengthen their professional development but also contribute to building a more resilient and proactive educational workforce.

Keywords: entrepreneurial abilities, achievement motivation, health, preschool teachers.

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Introduction

The role of entrepreneurship in the professional development of preschool teachers

Entrepreneurship is increasingly recognized in modern conditions as a key factor not only in economic but also in social development. In its narrowest sense, it refers to an individual's ability to identify opportunities, take initiative, and implement innovative ideas - most commonly through starting and managing their own business venture (Hisrich et al., 2005). However, the contemporary concept of entrepreneurship goes beyond traditional business frameworks and is increasingly applied within the public sector, including education, healthcare, and social services. Entrepreneurial competence is therefore recognized as one of the essential skills for lifelong learning. It refers to an individual's ability to recognize and take advantage of opportunities in their environment, transforming them into value, not only for themselves but also for others and the community. It is based on creative and critical thinking, problem-solving, perseverance, and active participation in planning and implementing various activities. This competence combines knowledge, skills, and attitudes that enable individuals to operate in diverse professional contexts. In addition to understanding project planning, resource management, and social and economic challenges, it includes key skills such as teamwork, creativity, decision-making, communication, financial literacy, and risk management. The resulting entrepreneurial mindset encompasses initiative, responsibility, proactivity, ethical behavior, care for others, and the ability to inspire and motivate those around them (Bacigalupo et al., 2016).

When applied to the preschool teaching profession, entrepreneurial abilities are not understood as the capacity to establish business enterprises. Instead, they refer to initiative, the identification of opportunities for improving practice, the ability to foster change, creative problem-solving, and the development of innovative educational approaches within educational institutions (Gracia-Zomeño, 2025; Trasberg, 2024).

In this context, the concept of entrepreneurial behavior in the preschool teacher profession is gaining increasing importance. Traditionally viewed as a role confined to clearly defined institutional norms and educational programs, the work of preschool teachers today increasingly demands a proactive approach, flexibility, creativity, and innovation. Entrepreneurship in education, also referred to as intrapreneurship, involves taking initiative within the organization to improve pedagogical practice, develop new educational content, and create a stimulating environment for children's development (Kuratko, 2009).

The profession of preschool teachers faces numerous challenges - from limited resources and administrative barriers to growing demands from parents and the wider community. In such a context, an entrepreneurial approach can contribute to the development of more efficient working methods, better communication with parents and the local community, and more successful achievement of early childhood education goals. Empowering preschool teachers to develop their own ideas, propose innovations, and participate in the development of the preschool institution as a dynamic organization forms the basis for integrating an entrepreneurial spirit into this profession (Oberhuemer, 2005).

Accordingly, there is a growing need to redefine the competencies expected of preschool teachers. In addition to pedagogical and psychological knowledge, modern society increasingly requires skills such as leadership, teamwork, change management, and project-oriented thinking, traits closely linked to the entrepreneurial mindset (Rasooli et al., 2019). The theoretical approach to entrepreneurship recognizes the preschool teacher not only as a program implementer, but also as an innovator and agent of change within the preschool institution.

The achievement motive: a psychological driver of personal and professional growth

According to McClelland (1953), the achievement motive represents an internal drive of an individual to pursue success in tasks perceived as meaningful and valuable, while simultaneously striving to stand out in comparison to others. It reflects a type of motivation oriented toward personal progress, overcoming challenges, and achieving measurable results. This motive belongs to the group of acquired motives and develops under the influence of experiences during upbringing, parental guidance, and broader cultural and societal values. From the outset, the achievement motive has been understood, on one hand, as a dynamic foundation for both individual and societal progress and for ensuring quality in various domains of activity, and on the other, as a disposition that affects cognitive processes such as perception, ways of thinking, and, consequently, behavior (Trebješanin & Lazarević, 2008). Individuals driven by a strong need for achievement are characterized by specific behavioral patterns that contribute to their personal and professional development. First, they perceive success as the result of their own effort, engagement, and abilities, rather than a consequence of luck or external circumstances. In this context, they assume personal responsibility for outcomes and do not seek external recognition, which makes their achievements a source of deep intrinsic satisfaction (Miner, 2005). Second, these individuals approach challenges by thoughtfully evaluating risks - they select tasks that are sufficiently challenging to stimulate engagement but not so difficult as to induce feelings of failure or frustration. This allows them to maintain an optimal level of motivation and commitment (Miner, 2005). Third, individuals motivated by achievement have a pronounced need for timely, concrete, and clear feedback on the outcomes of their efforts. In the absence of such information, their ability to differentiate between success and failure may be impaired, which can diminish their motivation and sense of fulfillment (Miner, 2005). Achievement motivation is recognized as a significant factor in promoting innovation and creative problem-solving. In contexts that demand novel solutions and non-traditional approaches, individuals with a pronounced drive for achievement typically demonstrate a high degree of originality and a future-oriented perspective. This proactive orientation, characterized by the anticipation of potential opportunities and outcomes, facilitates their success in professional environments that value initiative, entrepreneurial thinking, and the capacity to adapt to change.

In the context of education, especially in early childhood education, the achievement motive represents a key psychological resource that encourages future professionals to continually improve, take initiative in working with children, and create innovative pedagogical approaches. Educators with a stronger achievement motive tend to strive for higher standards in educational practice, are more open to new ideas, and show greater engagement in professional development (Dweck, 2006). Furthermore, the achievement motive is closely linked to the development of entrepreneurial thinking in education (Carsrud & Brännback, 2011). In contemporary society, which increasingly relies on innovation, initiative, and adaptability to change, an entrepreneurial approach in education entails the ability to recognize and seize new opportunities, solve problems creatively, and take responsibility for outcomes. It is precisely the achievement motive that drives such behavior - it pushes individuals to set goals, take calculated risks, and persist in their efforts to attain valuable results (OECD, 2015).

Mental health, motivation, and entrepreneurial skills among future preschool teachers

Mental health refers to a state of emotional, psychological, and social well-being that enables an individual to effectively cope with everyday stressors, maintain functional interpersonal relationships, and contribute to the community (WHO, 2018).

Research conducted in various countries indicates that academic stress, uncertainty about future careers, social isolation, and financial pressures are the most significant risk factors for the development of psychological issues among students (Campbell et al., 2022; Eisenberg et al., 2013;

Fazel et al., 2025). The situation in Serbia follows global trends, with a marked increase in mental health difficulties among young people in the academic population. According to a study by Simić Vukomanović and associates (Simić Vukomanović et al., 2018), around 40% of students report significant symptoms of anxiety and depression, while somatic symptoms and sleep disorders further complicate their health status. A report by the UNICEF (2021) confirms these findings, highlighting mental health as one of the priorities in population strategies for youth. The COVID-19 pandemic has further worsened the situation, increasing feelings of loneliness, anxiety, and depression (Kovačević, 2023). However, social dysfunction, such as difficulty integrating into social and academic activities, remains somewhat less pronounced, which may indicate students' resilience or the existence of adaptive mechanisms (Southwick et al., 2014).

The interaction between achievement motivation, entrepreneurial abilities, and mental health represents a crucial aspect for understanding the success of future preschool teachers. Contemporary studies suggest that high achievement motivation and well-developed entrepreneurial skills can have a protective effect on mental health, enhancing resilience to stress (Zhang et al., 2024). However, psychological issues such as anxiety may reduce the capacity for entrepreneurial activity and hinder goal attainment (Berger & Freiling, 2017). According to Mahdavi and associates (Mahdavi et al., 2023), a study among medical students showed that general mental health positively correlates with achievement motivation but does not directly influence academic success. This study also revealed, that higher levels of motivation were associated with an increased number of physical symptoms, likely due to intense stress experiences.

Although previous studies have provided valuable insights into achievement motivation, mental health, and entrepreneurial abilities, the available evidence remains fragmented, particularly regarding their simultaneous examination in future preschool teachers. This highlights the need for further research to clarify the relationships among these constructs and their contribution to the development of entrepreneurial abilities in this population.

Research Problem

Despite the growing interest in entrepreneurial competencies within teacher education (Bacigalupo et al., 2016; Trasberg, 2024), relatively few studies have simultaneously examined the relationships among achievement motivation, mental health, and entrepreneurial abilities in future preschool teachers (Mahdavi et al., 2023). Consequently, it remains unclear how these psychological factors are interrelated and to what extent they contribute to the development of entrepreneurial abilities in this population.

Accordingly, the present study addresses the following research questions:

RQ1: What are the relationships among achievement motivation, mental health, and entrepreneurial abilities among future preschool teachers?

RQ2: To what extent do achievement motivation and mental health predict entrepreneurial abilities among future preschool teachers?

Material and methods

General objectives

The primary objective of this study was to examine entrepreneurial abilities, achievement motivation, and general mental health status among students enrolled in the "Preschool Educator" program. Additionally, the study explored possible differences in these variables according to participants' sociodemographic characteristics. Finally, it investigated whether achievement

motivation and general mental health status significantly predict entrepreneurial abilities among future preschool teachers.

Research Hypotheses

Drawing upon previous theoretical and empirical evidence, the present study was guided by the following general hypothesis:

GH. Achievement motivation and mental health are associated with entrepreneurial abilities, and achievement motivation together with mental health contributes to the prediction of entrepreneurial abilities among future preschool teachers.

Based on this general hypothesis, the following specific hypotheses were formulated:

H1. Achievement motivation will be positively associated with entrepreneurial abilities among future preschool teachers.

H2. General mental health status will be negatively associated with entrepreneurial abilities among future preschool teachers.

H3. Achievement motivation will significantly predict entrepreneurial abilities among future preschool teachers.

H4. Achievement motivation and general mental health status will jointly contribute to the prediction of entrepreneurial abilities among future preschool teachers.

Sample

The study was conducted on a convenience sample of 133 students ($N = 133$) enrolled in the “Preschool Educator” program at the State University of Novi Pazar. The average age of participants was 21.5 years, ranging from 20 to 36 years. The sample was evenly distributed across study years: 36.6% were second-year, 31.3% third-year, and 32.1% fourth-year students. The majority of participants were female (98.5%), with 67.2% living in urban areas and 76.9% residing with both parents. Regarding the subjective assessment of their family’s financial situation, 55.2% rated it as good, 23.9% as average, and 20.9% as excellent. Concerning parental education, 59.7% reported that their father completed secondary school, 23.9% higher education or university, 14.2% primary school, and 1.5% had a father with a master’s or doctoral degree. As for mothers’ education, 64.9% indicated their mother finished secondary school, 27.6% primary school, and 7.5% had mothers with higher education or university degrees. In terms of academic achievement, most students (74.6%) had a grade point average between 7.00 and 8.00, 20.9% between 8.00 and 9.00, and only 4.5% had an average above 9.00. The study was carried out at the State University of Novi Pazar with the cooperation of academic staff. Before participation, the purpose of the study was explained to the students, emphasizing anonymity and confidentiality. The questionnaire completion took up to 45 minutes.

Instruments

The Entrepreneurial Abilities Scale (Grozđanić et al., 2007; Harper, 1991) is a unidimensional scale consisting of 8 items related to entrepreneurial skills and initiative (e.g., “I am a seeker of new opportunities” or “I like competition and I am market oriented”). Respondents assess their entrepreneurial abilities using a five-point Likert scale with the following response options: (1 = strongly disagree, 2 = mostly disagree, 3 = neither agree nor disagree, 4 = mostly agree, 5 = strongly agree). The total score represents a linear combination of individual item ratings. The scale has demonstrated satisfactory reliability ($\alpha = .78$).

The MOP 2002 Scale (Franceško et al., 2002) is designed to assess achievement motivation. The instrument consists of 55 items rated on a five-point Likert scale. It includes four subscales, each

measuring a distinct dimension of general achievement motivation: *Competition with others* - includes items that reflect an individual's tendency to stand out and outperform others (e.g., "The biggest incentive for me is competing with others"); *Persistence in goal attainment* - refers to perseverance as a personal trait, with items emphasizing determination to achieve success despite obstacles (e.g., "I must succeed at what I do, no matter what"); *Goal attainment as a source of satisfaction* - measures the tendency to perceive achieving goals as intrinsically rewarding (e.g., "Successfully completing a task is the greatest reward for me") and *Planning orientation* - evaluates the inclination to plan activities in advance to achieve set goals (e.g., "I plan everything in advance in order to achieve better results"). According to research by Mihajlović and Stojanović (2014), the overall internal consistency of the scale is high ($\alpha = .90$). Reliability coefficients for the individual subscales are as follows: competition with others $\alpha = .90$, persistence in goal attainment $\alpha = .77$, goal attainment as a source of satisfaction $\alpha = .86$, and planning orientation $\alpha = .84$.

The General Health Questionnaire (GHQ; Goldberg, 1972) is designed to assess the presence of psychological and physical symptoms in respondents. The instrument consists of 12 items grouped into four subscales: *Somatic symptoms* (e.g., "Have you recently felt that you are unwell?"), *Anxiety* (e.g., "Have you recently felt nervous and tense?"), *Social dysfunction* (e.g., "Have you recently noticed that you are slower in completing your work?") and *Depressive symptoms* (e.g., "Have you recently thought about taking your own life?"). Participants respond using a four-point Likert scale (from 1 = not at all to 4 = much more than usual), evaluating the presence and intensity of current and recent symptoms. According to the study by Krstić-Joksimović et al. (2014), the internal consistency coefficients for the subscales were as follows: somatic symptoms $\alpha = .67$, anxiety $\alpha = .73$, social dysfunction $\alpha = .52$, and depressive symptoms $\alpha = .53$. The overall reliability of the scale was $\alpha = .80$.

Statistical data analysis

Data were processed using the SPSS software, version 25. Results of skewness, kurtosis, and the Kolmogorov-Smirnov test indicated that the distribution of most variables did not follow a normal distribution ($p > .05$). Based on these findings, the nonparametric Kruskal-Wallis H test and Mann-Whitney U test was used to examine differences between variables. Spearman's correlation coefficient was applied to analyze relationships between the observed variables. Additionally, linear regression analysis was conducted to investigate the predictive potential of achievement motivation and general health dimensions in relation to entrepreneurial abilities.

Results

The following section presents descriptive data for the examined variables: entrepreneurial abilities, achievement motivation, and mental health.

Table 1. Descriptive indicators of entrepreneurial abilities, achievement motivation, and mental health

	Min.	Max.	M	SD	Skewness	Kurtosis	K-S
Entrepreneurial abilities	17	44	30.69	4.292	-.192	.078	.010
Goal setting and attainment	31	65	54.64	6.684	-.969	.901	.063
Competition with others	28	81	55.63	11.806	-.133	-.538	.200
Persistence	39	74	57.15	7.255	-.169	-.326	.001
Planning	16	38	25.53	5.113	-.144	-.694	.000
Somatic symptoms	3	12	6.50	2.241	.214	-.742	.000
Anxiety	3	12	6.25	2.469	.327	-.834	.000
Dysfunction	2	10	4.02	1.80	.703	1.751	.000
Depression	3	12	6.59	1.642	.841	.793	.000

As shown in Table 1, the results indicate that participants perceived themselves as enterprising individuals with entrepreneurial ideas ($M = 30.69$, $SD = 4.29$).

Regarding achievement motivation, the highest average score was recorded for the dimension of persistence ($M = 57.15$, $SD = 7.25$), while the lowest score was assigned to the planning dimension ($M = 25.53$, $SD = 5.11$).

When it comes to dimensions of mental health, the highest average values were found for depressive symptoms ($M = 6.59$, $SD = 1.64$) and somatic symptoms ($M = 6.50$, $SD = 2.24$), as well as for anxiety ($M = 6.25$, $SD = 2.47$). These scores indicate a moderate level of psychological and physical difficulties among students. The lowest values were observed for dysfunction ($M = 4.02$, $SD = 1.80$), suggesting that problems related to social functioning are rarely reported by participants.

Differences in entrepreneurial abilities, dimensions of achievement motivation, and dimensions of mental health in relation to certain sociodemographic characteristics of the respondents

Differences in the examined variables were also analyzed in relation to sociodemographic characteristics. A statistically significant difference in entrepreneurial abilities was found based on age, $H(5) = 12.010$, $p = .035$, with students aged 25 demonstrating the highest levels and those aged 36 the lowest. Additionally, a significant difference was observed based on year of study, with second-year students scoring higher on entrepreneurial abilities than third-year students, $H(2) = 6.48$, $p = .039$.

Within the domain of achievement motivation, students aged 25 were significantly more persistent in achieving their goals compared to younger participants, $H(5) = 15.418$, $p = .009$, and also reported greater satisfaction from goal attainment than older students, $H(5) = 19.804$, $p = .001$. A similar pattern was observed among students with a GPA above 9.00 regarding persistence, $H(2) = 12.479$, $p = .002$. Furthermore, statistically significant differences were found in competitiveness: students with a GPA between 8.00 and 9.00 reported the highest tendency to compete, whereas those with a GPA between 7.00 and 8.00 reported the lowest, $H(2) = 10.867$, $p = .004$.

No significant differences in achievement motivation were found based on gender, financial status, place of residence, living arrangement, or parental education (all $ps > .05$).

Regarding mental health, a significant difference was found only in relation to financial status: students who rated their financial situation as average reported higher levels of anxiety, $H(2) = 6.631$, $p = .036$, and dysfunction than those who rated their situation as excellent, $H(2) = 9.284$, $p = .010$.

Table 2 presents the correlation results between entrepreneurial abilities, dimensions of achievement motivation, and dimensions of mental health.

Table 2. Correlations between entrepreneurial abilities, dimensions of achievement motivation, and dimensions of mental health

Variable	GS	CWO	P	PS	EA	SS	A	D1	D2
GS	-								
CWO	.201*	-							
P	.369**	.344**	-						
PS	.571**	.400**	.362**	-					
EA	.466**	.560**	.299**	.492**	-				
SS	-.174*	-.168	-.186*	-.030	-.179*	-			
A	-.336**	-.139	-.265**	-.137	-.217*	.653**	-		
D1	-.257*	.046	-.060	-.142	-.217*	.388**	.523**	-	
D2	-.204*	-.054	-.230*	-.123	-.202*	.402**	.529**	.478**	-

Legend: GS = Goal settings; CWO = Competition with others; P = Planning; PS = Persistence; EA = Entrepreneurial abilities; S = Somatic symptoms; A = Anxiety; D1 = Depression; D2 = Dysfunction

Note: ** $p < .01$, * $p < .05$

As shown in Table 2, all dimensions of achievement motivation are significantly correlated with one another. The strongest correlation is observed between Goal settings and Persistence in goal attainment, $r(131) = .571$; $p < .01$, while the weakest correlation is between Goal settings and Competition with others $r(131) = .201$; $p < .05$.

When it comes to entrepreneurial abilities, they are significantly related to all dimensions of achievement motivation, as well as to all dimensions of mental health. However, Entrepreneurial abilities show the strongest correlation with Competition with others, $r(131) = .560$; $p < .01$ and Persistence, $r(131) = .492$; $p < .01$. Negative correlations of low intensity are recorded between Entrepreneurial abilities and dimensions of mental health. The most prominent are with Anxiety, $r(131) = -.217$; $p < .05$ and Depression, $r(131) = -.217$; $p < .05$, indicating that higher entrepreneurial ability is associated with lower levels of anxiety and fewer depressive symptoms.

Among all dimensions of achievement motivation, only Competition with others and Planning did not show significant correlations with any dimensions of mental health. However, several noteworthy negative correlations emerged: Goal setting was negatively associated with Anxiety, $r(131) = -.336$, $p < .01$, and Depression, $r(131) = -.257$, $p < .01$, while Planning was negatively correlated with Anxiety $r(131) = -.265$, $p < .01$ and Dysfunction, $r(131) = -.230$, $p < .05$.

All assessed dimensions of mental health were significantly and strongly intercorrelated. The strongest association was observed between Somatic symptoms and Anxiety, $r(131) = .653$, $p < .01$. Table 3 shows the results of the linear regression analysis predicting entrepreneurial abilities using a model that includes achievement motivation and mental health.

Table 3. Prediction of entrepreneurial abilities based on a model including achievement motivation and mental health

Predictor Variable	B	95% CI for B	p
Achievement motivation	0.120	[0.095, 0.146]	< .001
Mental health	-0.064	[-0.152, 0.025]	.159

Model Summary:

$R = .663$, $R^2 = .439$

$F(2, 130) = 50.87$, $p < .001$

As evident from Table 3, the overall model was statistically significant, $F(2, 130) = 50.87$, $p < .001$, with a multiple correlation coefficient of $R = .66$ and an explained variance of $R^2 = .44$, indicating that approximately 44% of the variance in entrepreneurial abilities can be accounted for by the predictor variables.

Only achievement motivation was a statistically significant predictor, $B = 0.12$, $p < .001$, 95% CI [0.10, 0.15], while mental health status was not, $B = -0.06$, $p = .16$, 95% CI [-0.15, 0.03].

Discussion

The results of this research indicate that students perceive themselves as individuals with strong entrepreneurial ideas and potential, with persistence being the most prominent dimension within the achievement motivation, while planning recorded the lowest average. These findings align with the theoretical framework of personal initiative (Frese & Fay, 2001), which describes it as proactive and self-initiated behavior aimed at achieving goals, even in the face of obstacles and failures. Persistence, as the most prominent dimension, can be seen as a form of personal initiative, indicating a high potential for entrepreneurial behavior among students. These tendencies are also confirmed by recent study showing that high levels of self-regulated motivation and persistence in learning and professional aspirations are associated with more pronounced forms of entrepreneurial behavior in youth (Ferreira et al., 2019). However, the low level of planning may present a limitation in realizing entrepreneurial ideas. Planning is a key component in models of entrepreneurial competencies and its absence can hinder the transition from intention to action. Similar findings have been observed in other studies, highlighting the importance of strategic thinking and planning skills as prerequisites for successful entrepreneurship (Dhliwayo & Van Vuuren, 2007).

Regarding mental health, the highest average values were recorded in the dimensions of depressive symptoms, somatic symptoms and anxiety, while social dysfunctionality was the least expressed. These results indicate the presence of moderate psychological and physical difficulties among students, consistent with findings from other studies showing high levels of stress and mental burden in student population (Porru et al., 2021).

A significant difference in mental health experience was observed in relation to financial status: students who rated their financial status as average reported higher levels of anxiety and dysfunctionality compared to those who rated their financial situation as excellent. These findings confirm previous research on the negative impact of economic insecurity on students' psychological well-being (Kecojević et al., 2020).

In terms of entrepreneurial abilities, students aged 25 showed the highest level of expression, which is in line with findings from other contexts (Nabi et al., 2018; Rauch & Frese, 2007) indicating that with age, confidence and readiness to take risks increase. Additionally, students with high GPA (above 9.00) showed higher levels of persistence and expressed competitiveness, consistent with findings linking academic success with high achievement motivation (Komarraju & Karau, 2005).

Interestingly, despite pronounced psychological burden (e.g., depression and anxiety), which is also confirmed by contemporary research emphasizing the role of motivation as an important psychological resource in overcoming stress and enhancing resilience among youth (Wang & Liu, 2022), students still demonstrate high achievement motivation and entrepreneurial potential. This may indicate a compensatory mechanism, where personal motivation and internal goals are used as psychological resources to overcome stress and uncertainty (Hope & Spencer, 2017).

Correlation analysis showed that all dimensions of achievement motivation are significantly interrelated, confirming the consistency of this construct. The strongest correlation between goal setting and persistence confirms that students who clearly set goals also show high persistence in achieving them, in line with goal-directed motivation models (Locke & Latham, 2002).

Significant positive correlations between entrepreneurial abilities and all dimensions of achievement motivation confirm the theoretical expectation that entrepreneurs are largely driven

by success motives, especially through competition with others and persistence. This is consistent with the findings of Rauch & Frese (2007), as well as more recent results in entrepreneurial psychology emphasizing the importance of motivational traits for entrepreneurial behavior (Ferreira et al., 2021).

Interestingly, entrepreneurial abilities were negatively correlated with anxiety and depressive symptoms suggesting that higher levels of these abilities may have a protective effect on mental health. These findings complement previous results and support the thesis that entrepreneurial engagement can contribute to psychological well-being (Ryff & Singer, 2008), likely through a sense of control, purpose, and efficacy (Shir et al., 2019). A statistically significant negative correlation was found between goal setting and anxiety, suggesting that students who are more oriented toward setting goals tend to experience lower levels of anxiety. This finding is theoretically supported by the self-regulation and goal-setting frameworks (Locke & Latham, 2002), which posit that clear goal setting enhances a sense of control and personal efficacy, thereby reducing uncertainty and emotional distress. A statistically significant negative correlation was also observed between planning and dysfunctionality, indicating that students who engage more in planning behaviors report fewer difficulties in functioning. Effective planning enables individuals to anticipate potential challenges, organize tasks, and manage time efficiently, which can significantly reduce cognitive overload and behavioral disorganization (Friedman & Schustack, 2006). In contrast, low levels of planning are often associated with impulsivity, procrastination, and decreased ability to cope with daily demands, all of which contribute to functional impairments. These findings are consistent with previous research showing that individuals with higher planning skills tend to exhibit better psychological adjustment and fewer symptoms of dysfunction across academic, social, and emotional domains (Gustavson et al., 2015).

Finally, strong inter-correlations among dimensions of mental health, particularly between somatic symptoms and anxiety confirm the known clinical association between psychological and physical symptoms (Kroenke et al., 2002), further supporting the validity of using the GHQ scale in this context. It aligns with previous research suggesting that psychological distress often manifests through physical complaints (Kroenke et al., 2007). Individuals experiencing heightened anxiety frequently report symptoms such as fatigue, muscle tension, or gastrointestinal discomfort, which may explain the close association between these dimensions of mental health.

Regression analysis results confirm that the model combining mental health and achievement motivation significantly predicts students' entrepreneurial abilities, however, from this set of predictors, only achievement motivation proved to be a significant predictor, further confirmed by contemporary research emphasizing the crucial role of achievement motives in shaping entrepreneurial abilities, in line with theories that place motivation as the central psychological mechanism and driver of entrepreneurial behavior (Shir et al., 2019). Research also confirms that intrinsic motivation, self-determination, and personal autonomy are stable predictors of entrepreneurial intention and behavior, often stronger than emotional state or general indicators of mental health (Newman et al., 2019).

On the other hand, although dimensions of mental health correlated with entrepreneurial abilities in preliminary analyses, they did not contribute additionally to prediction when achievement motivation was included in the model. This finding may suggest that mental health may play an indirect role in the development of entrepreneurial abilities, through mediators such as emotional regulation, self-competence perception, and resilience, as noted by Rauch & Frese (2007). According to them, this mediating role of mental health suggests that its effect on entrepreneurship is complex and not always directly measurable through linear models. Such findings indicate the need for more complex models in future research, such as structural equation modeling, which would allow for the consideration of mutual effects between motivation, mental health, and entrepreneurial behavior.

Conclusion

The results of this study highlight the importance of achievement motivation dimensions as key factors in shaping the entrepreneurial abilities of future professionals, with particular emphasis on goal setting and persistence. The negative correlations between motivational components and anxiety and depressive symptoms suggest a potential protective effect of high motivation levels on mental health. Effective planning, associated with reduced dysfunctionality, further underscores the role of cognitive and self-regulatory strategies in enhancing psychological functioning. However, one of the study's limitations is the fact that the sample included only preschool teacher education students, which limits the ability to generalize the results to a broader student population. Also, the study did not include participants' personal traits that could further explain variations in the expression of mental health and entrepreneurial abilities. Future research should include various educational profiles and incorporate psychological characteristics such as self-esteem, self-efficacy, and emotional stability to gain deeper insight into the mechanisms influencing motivation, entrepreneurship, and student well-being.

These findings have practical value in educational and counseling contexts, indicating the need for the development of educational policies and programs that systematically include elements of personal motivation, persistence, and entrepreneurial skills development into curricula, particularly in higher education. For example, introducing interdisciplinary courses on entrepreneurship, training in goal setting, and resilience development can help students more effectively overcome psychological challenges while also enhancing their professional competencies (Lackéus, 2015).

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