

Impact of Academic Qualifications and Teaching Level on Physical Education Teachers' Mental Health

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ABSTRACT. This study aimed to examine the mental health of physical education (PE) teachers in relation to their academic qualifications and teaching levels. The study sample comprised 187 PE teachers from the city of Setif, Algeria, during the 2025-2026 academic year, distributed between middle and secondary education levels. The researchers employed the modified SCL-90 scale to evaluate mental health across the seven dimensions. The findings revealed statistically significant differences in reactive sensitivity and phobia between teachers with bachelor's and master's degrees, with those possessing master's degrees exhibiting higher levels. Additionally, secondary school teachers demonstrated higher levels of obsessive-compulsive disorder symptoms than their middle-school counterparts. This study offers recommendations for the development of targeted interventions, professional development programs, and institutional changes to support teachers' mental health across various career stages and educational settings.

Keywords: *mental health, physical education, teachers, academic qualifications, teaching level.*

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INTRODUCTION

Physical education constitutes a cornerstone of school curricula, commanding substantial weekly instructional time for students. Formally defined as an academic subject featuring a planned, sequential K–12 curriculum that leverages human movement to foster knowledge, skills, and confidence in lifelong physical activity (Michael et al., 2021), physical education also well as Conceptual Physical Education (CPE) models. These integrate classroom instruction in kinesiology, health-related fitness, and self-management with structured physical activity to cultivate healthy lifestyles (Corbin, 2021). Physical education teachers serve as primary specialists bearing unique responsibilities within educational systems, including lesson preparation, objective establishment, assessment implementation, and comprehensive class management spanning preventative, instructional, and recreational domains (Németh et al., 2024). delineate five critical competency domains essential for these educators: psycho-pedagogical, personal-professional, didactic/methodological, communicative and organizational, and scientific-pedagogical. These competencies enable effective lesson organization, student guidance, and educational process planning (Németh et al., 2024). Jeremić et al. (2018) systematically analyzed physical education teachers' instructional roles through dual student-teacher perspectives, identifying three foundational functions: organized class management, emotional partnership with learners, and specialized knowledge dissemination with explanatory responsiveness. These roles underpin successful physical education learning outcomes.

Academic qualifications and teaching experience fundamentally shape physical education teachers' performance, interpersonal dynamics, social environments, and mental health. Gatt et al. (2025) investigate PE teachers' conceptualizations of mental health and well-being, revealing perceptions as a positive dynamic state characterized by emotional wellness, adaptive capacity, and constructive social relationships embodying an 'salutogenic' health paradigm transcending disease absence. In addition, Piñeiro-Cossio et al. (2021) synthesized well-being and mental health definitions within physical education and school sports contexts, noting definitional heterogeneity while consistently associating these constructs with life satisfaction, positive affect, stress resilience, relational quality, personal growth, and self-acceptance. Professional experience correlates directly with academic attainment, where master's-level educators demonstrate enhanced competency and pedagogical distinctiveness compared with bachelor's holders. Chen et al. (2025) empirically demonstrated the protective effects of professional competence against stress and emotional exhaustion while promoting work engagement moderated by age, rank, and educational level higher qualifications, yielding superior occupational mental health profiles.

Yan et al. (2022) corroborated these findings, establishing elevated academic degrees' associations with competence enhancement and job satisfaction core occupational mental health constituents. Superior academic preparation thus elevates physical education teachers' mental health resilience. The teaching level introduces additional nuances, distinguishing middle school (late childhood) from high school (adolescent) contexts, with divergent interactional and managerial demands. Chen et al. (2025) documented school environment and instructional level correlations with teacher stress, burnout, and satisfaction, including among physical education faculty. In a sample of 116 physical education teachers, Bodo et al. (2021) established educational qualification as a significant life satisfaction predictor as a cardinal mental health indicator. These converging lines of evidence underscore critical knowledge gaps regarding academic qualifications and the specific impact of teaching education teachers' mental health. Accordingly, this study addresses the pivotal research question: What is the level of mental health among physical education teachers according to their qualifications and teaching levels?

METHOD

Participants

The study involved 187 physical education and sports teachers from Sétif, who were teaching during the 2025–2026 academic year at both the middle and secondary school levels. These teachers were chosen randomly, and, on average, they were 30 years old.

Table 1. Research Participants

	N	Percentage
Gender		
Educational qualifications		
Bachelor's degree	89	47.17
Master's degree	92	50.82
Teaching level		
High	79	43.6
Middle	102	56.35

Instrument

Ghali (2014) revised the SCL-90 scale of Derogatis et al (1973), which initially contained 90 items. The updated version reduced the number of items to 48 and categorized them into seven dimensions. This revised version was evaluated by experts and its psychometric properties were assessed, leading to the elimination of five items, resulting in a total of 43 items. The items on the scale are phrased negatively and scored to reflect mental health, where higher scores indicate poorer mental health, and lower scores indicate better mental health and psychological wellbeing. Participants responded to the scale items using a five-point scale (1 = I do not suffer at all, 2 = I suffer a little, 3 = I suffer moderately, 4 = I suffer a lot, and 5 = I suffer severely), selecting the option that best described their experience. These five choices correspond to the five levels of mental health defined by this scale (Ghali, 2014).

Psychometric properties

To assess the internal consistency and validity of the Mental Health scale, correlation coefficients were computed between individual items, their respective dimensions (e.g., physical symptoms, reactive hypersensitivity, depression, anxiety, hostility, and phobia), and total scores. The analysis revealed strong positive correlations ($r > 0.70$) for the majority of items with their dimensions and the overall scale, with nearly all coefficients statistically significant at $p < 0.01$ (**) or $p < 0.05$ (*). These results confirm the high internal validity and reliability of the instrument.

Cronbach's alpha coefficients were calculated for each dimension and the total scale. All dimensions exhibited high internal consistency, with alpha values ranging from 0.861 to 0.903, and an overall scale of $\alpha = 0.892$. These results indicate excellent reliability (>0.80) across all subscales.

Data Analysis

Data were analyzed using the SPSS version 28 software. Various statistical tests were performed, including correlation coefficients and Cronbach's alpha for reliability, means, and standard deviations (Basu, 2021). Additionally, an independent samples t-test was conducted to assess differences between the groups (Carmona, 2014).

RESULTS

To determine whether there were statistically significant differences in the level of mental health attributable to the educational qualification variable, an independent samples t-test was used after confirming the normality of the distribution using the Smirnov test. The results are presented in the following table:

Table 2. Difference in mental health between groups
(bachelor's degree, master's degree)

		N	Mean	Sd	T	df	Sig.
Physical symptoms	Bachelor's degree	89	12,8182	3,36495	-,788	178	,432
	Master's degree	92	13,2609	4,11342			
Obsessive-compulsive disorder	Bachelor's degree	89	16,1705	5,27240	-,258	178	,796
	Master's degree	92	16,3804	5,61952			
Reactive Hypersensitivity	Bachelor's degree	89	9,9886	3,59915	-2,275	178	,024
	Master's degree	92	11,3478	4,36125			
Depression	Bachelor's degree	89	12,0000	4,47214	,538	178	,591
	Master's degree	92	11,6196	4,98094			
Anxiety	Bachelor's degree	89	8,8864	3,93753	-,127	178	,899
	Master's degree	92	8,9565	3,48596			
Hostility	Bachelor's degree	89	9,5455	4,44354	-1,255	178	,211
	Master's degree	92	10,4022	4,70226			
Phobia	Bachelor's degree	89	9,3295	2,88763	-2,579	178	,011
	Master's degree	92	10,7283	4,23254			
Mental health	Bachelor's degree	89	78,7386	20,76441	-1,158	178	,248
	Master's degree	92	82,6957	24,80595			

The independent sample t-test results revealed significant differences in the mental health dimensions between PE teachers with bachelor's and master's degrees. Specifically, teachers with master's degrees reported higher scores for reactive hypersensitivity ($t = -2.275$, $p = .024$) and phobia ($t = -2.579$, $p = .011$), indicating potentially poorer mental health in these areas. Master's degree holders scored higher on reactive hypersensitivity ($M = 11.3478$, $SD = 4.36125$) and phobia ($M = 10.7283$, $SD = 4.23254$) than bachelor's degree holders did. However, no significant differences were found in the overall mental health score or in other dimensions such as physical symptoms, OCD, depression, anxiety, and hostility.

To determine whether there were meaningful differences in mental health based on teaching level, we used an independent sample t-test. Before this, we checked whether the data followed a normal distribution by using the Smirnov test. The results are presented in the following table:

Table 3. Difference in mental health between groups (high school, middle school)

		N	Mean	Sd	T	df	Sig
Physical symptoms	High school	79	12,7722	3,56244	-,858	179	,392
	Middle school	102	13,2549	3,89640			
OCD	High school	79	17,2278	6,03823	2,030	179	,044
	Middle school	102	15,5882	4,82640			
Reactive hypersensitivity	High school	79	11,1899	4,11712	1,467	179	,144
	Middle school	102	10,3039	3,96217			
Depression	High school	79	12,5190	5,19087	1,723	179	,087
	Middle school	102	11,3039	4,29549			
Anxiety	High school	79	9,2532	3,77396	1,060	179	,291
	Middle school	102	8,6667	3,62700			
Hostility	High school	79	10,3924	4,60885	1,000	179	,319
	Middle school	102	9,7059	4,56111			
Phobia	High school	79	10,0886	3,51987	,089	179	,929
	Middle school	102	10,0392	3,83553			
Mental health	High school	79	83,4430	24,18505	1,336	179	,183
	Middle school	102	78,8627	21,79656			

The independent sample t-test results presented in table 3 provide insight into the differences in mental health dimensions between high school and middle school PE teachers. The analysis revealed a statistically significant difference only in one dimension: obsessive-compulsive disorder (OCD) ($t = 2.030$, $df = 179$, $p = .044$). High school teachers showed higher average scores for OCD symptoms (17.2) than did middle school teachers (15.6), indicating that high school teachers might experience more OCD-related problems. However, it is important to note that no statistically significant differences were found in the overall mental health score or in other dimensions such as physical symptoms, reactive hypersensitivity, depression, anxiety, hostility, and phobia. Although there were slight variations in the mean scores across these dimensions, none reached statistical significance.

DISCUSSIONS

This study aimed to review the current understanding of the mental health status of PE teachers, focusing on the factors influencing it, and emphasizing the importance of conducting more studies in this field. Table 2 shows no significant overall difference in mental health based on educational qualification (Sig = 0.248). However, significant differences were observed in terms of Reactive Hypersensitivity (Sig = 0.024) and phobia (Sig = 0.011). Teachers with master's degrees scored higher on these dimensions than those with bachelor's degrees. According to Rahmani et al. (2024), teachers with master's degrees express higher levels of reactive hypersensitivity and phobia, suggesting a potential link between higher educational attainment and increased mental health challenges. This may be due to the greater responsibilities or expectations associated with advanced degrees (Rahmani et al., 2024). Fang et al. (2023) found that teachers' mental health can vary based on their educational environment, with teachers in remote or economically disadvantaged areas facing different stressors than their counterparts in urban areas (Fang et al., 2023). Advanced educational levels may be correlated with poor mental health in specific dimensions. These findings support research showing that teaching is a high-stress profession with multiple factors contributing to psychological challenges. Studies indicate that teaching often leads to emotional exhaustion and mental health issues such as depression and anxiety, exacerbated by job demands, student behaviors, and administrative pressures (Fang et al., 2023). The work environment also plays a role in achieving mental health stability among teachers, as Rahmani and others (2024) study proved that teachers often face challenging working conditions, including high levels of presenteeism and emotional labor, which are associated with psychological distress (Corpuz, 2023). In recent years, the coronavirus pandemic has managed to erase two years of human memory, with people unable to remember how it has passed; thus, its impact on mental health is negative. In addition, maintaining one's mental health, in particular, gives individuals confidence in themselves and thus improves their health, as confirmed by Frang et al. (2023), who addressed the need to include mental health examinations in routine health checks to facilitate early detection and intervention for teachers facing mental health challenges. From another perspective, sensitizing teachers to the importance of their place in life as competent shapers of generations of students gives them psychological comfort, which increases their motivation to achieve. Corpuz (2023) and Mo (2024) arrived at the same conclusion, supporting policies that promote teacher well-being and provide training in emotional regulation, coping strategies, and work-life balance as factors that can help alleviate stress and improve mental health outcomes (Corpuz, 2023). The analysis shows significant mental health

challenges for teachers with master's degrees, but this should be contextualized within the inherently stressful nature of teaching. While all teachers face emotional demands, those with higher qualifications may experience additional pressure from their career expectations. Addressing these issues requires comprehensive strategies including policy changes, enhanced support systems, and targeted interventions to support teachers' well-being.

Table 3 shows that there was no significant overall difference in mental health between middle and high school teachers (Sig = 0.181). However, there was a significant difference in Obsessive-Compulsive Disorder (OCD) symptoms (Sig = 0.044), with high school teachers reporting higher levels. No significant differences were found in the other mental health dimensions. This highlights the specific OCD-related challenges for high school teachers, while other mental health aspects remain similar across educational levels. Comparing other dimensions to OCD might reveal similar experiences, such as physical symptoms from prolonged standing under various weather conditions. However, Christian's study found higher levels of obsessive-compulsive disorder symptoms than their middle school counterparts. This may be attributed to increased stress and responsibilities associated with teaching older students, who may pose more complex educational and behavioral challenges (Fang et al., 2023). Coming to the dimension of reactive hypersensitivity, undesirable student behaviors and exaggerated teacher reactions, such as stubbornness and chaos, as well as continuous communication with parents, express the nature of similar pressures for teachers at both middle and high school levels. In contrast, Vallani et al. confirmed that obsessive-compulsive disorder symptoms affect teachers' ability to effectively manage the classroom environment, which may negatively affect their interactions with students and teaching efficiency in general (Vallani et al., 2022). Therefore, Hooker's study shows that teachers generally face high levels of stress and burnout, which may lead to mental health problems, such as depression and anxiety. These challenges are prevalent across all teaching levels, demonstrating the need for comprehensive mental health support for teachers (Christian et al., 2022). According to Salter, positive relationships between teachers and students can alleviate anxiety and promote mental health outcomes for both teachers and students. Therefore, building supportive and caring relationships within the school environment is essential for promoting mental health and well-being (Salter et al., 2024). Phobia is less common among teachers than hostility, which is closely linked to the school environment, explaining the similar results across middle and high schools. Rubies's study shows that the school environment, including student behavior and perceived safety, significantly impacts teachers' mental health. Unsafe environments or high student behavioral problems can increase teacher s' stress and mental health issues (Salter et al., 2024). Similar results across psychological dimensions

suggest that teachers face common problems, although obsessive-compulsive disorder symptoms differ between the middle and high school levels. Vallani's study recommends generalizing mental health support policies for all teachers while providing flexible, targeted interventions for specific issues, such as OCD in high school teachers. Comprehensive support systems addressing stress, anxiety, and depression are crucial for all educators (Vallani et al., 2022). While obsessive-compulsive disorder is a significant concern for high school teachers, overall teacher mental health is influenced by the school environment, student behavior, and personal demographics. Comprehensive mental health programs and supportive school policies can improve teachers' well-being across all educational levels.

CONCLUSION

This study examined the mental health of physical education teachers in relation to their educational qualifications and teaching levels. The findings highlight a complex interplay of factors influencing teachers' mental health, with significant implications for educational policy and practice. Notably, the study identified increased reactive hypersensitivity and phobia among teachers with master's degrees. The study advocates the implementation of tailored mental health support, professional development, institutional changes, and further research. Recommendations include targeted interventions for individuals with advanced degrees; programs aimed at reducing obsessive-compulsive disorder symptoms among high school teachers; differentiated support across career stages; regular mental health literacy training; comprehensive screening services; and policies addressing stressors associated with different teaching levels and qualifications.

AUTHOR CONTRIBUTIONS

Author 1, Author 2, and Author 3, Author 4 contributed to the design and implementation of the research, data collection, analysis of the results, and writing of the manuscript. All authors have read and agreed to the published version of the manuscript.

CONFLICT OF INTEREST

The authors declare that they have no conflicts of interest regarding the publication of this paper.

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