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The Impact of Recreational Physical Activity Units on Enhancing the "Need for Competence" as a dimension of Psychological Needs Among Pedagogical Staff at the University of Chlef

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Abstract:
This investigation examines the differences between regular practitioners and non-practitioners of recreational physical sports activity regarding the fulfillment of the need for competence—conceptualized as a fundamental psychological need within Self-Determination Theory—among pedagogy support workers at Hassiba Benbouali University of Chlef, Algeria. Employing a comparative causal-descriptive design, the research was conducted on a stratified systematic random sample of 160 university pedagogy employees (80 regular practitioners of recreational physical sports activity and 80 non-practicing counterparts), following a pilot psychometric validation on 40 workers drawn from the total administrative and pedagogical workforce of 1,272 employees. Data were gathered using the Need for Competence Subscale of the Basic Psychological Needs Scale (12 items distributed across 7 positive competence mastery items and 5 reverse-scored competence frustration items). Statistical analyses executed via SPSS (including Pearson correlation, Spearman-Brown split-half reliability, Cronbach's alpha, independent-samples t-tests, and Cohen's d effect size) revealed statistically significant differences at the $\alpha \leq 0.05$ level ($t = 9.71$, $df = 158$, $p < 0.001$, $d = 1.54$) in favor of employees who regularly practice recreational physical sports activity. Practicing staff demonstrated substantially higher perceived task mastery, environmental effectiveness, and resilience against occupational inadequacy. The study concludes by recommending institutional workplace physical recreation programs across Algerian higher education institutions to foster employee competence satisfaction and administrative productivity.

Keywords: Recreational physical sports activity; Psychological needs; Need for competence; Self-Determination Theory; University pedagogy workers.

1. Introduction and Problem Statement

Contemporary behavioral and exercise sciences accord substantial attention to structured physical and recreational activities because of their formative role in cultivating an integrated human personality across cognitive, affective, and physiological domains. Far from being a peripheral leisure pursuit, recreational physical sports activity functions as a foundational catalyst that equips individuals with the adaptive capacities required to thrive within complex institutional environments. Advanced societies have systematically integrated recreational sports into public and occupational life as a constructive vehicle for investing discretionary time, cultivating prosocial and ethical values, mitigating occupational stress, and strengthening interpersonal cohesion (Darwish & Al-Hamahmi, 1997; Abd El-Salam, 2001). Within educational and administrative

institutions, active recreation provides employees with structured opportunities to discharge accumulated tension, restore emotional equilibrium, and renew their cognitive vitality.

Within modern psychological scholarship, human flourishing and workplace effectiveness are increasingly explained through the lens of Basic Psychological Needs Theory, a core mini-theory of Self-Determination Theory (Deci & Ryan, 2000; Ryan & Deci, 2017). Among the foundational psychological nutrients required for optimal human functioning, the need for competence occupies a central position. The need for competence refers to an individual's inherent psychological striving to feel effective, capable, and masterful in ongoing interactions with the surrounding environment, as well as experiencing opportunities to exercise, expand, and express personal capacities (Deci & Ryan, 2000; Qashqoush & Mansour, 1982). When employees satisfy their need for competence, they exhibit heightened self-efficacy, persistence in the face of administrative challenges, and intrinsic motivation toward professional excellence. Conversely, when the need for competence is thwarted or frustrated, workers frequently experience feelings of helplessness, professional inadequacy, emotional exhaustion, and disengagement from institutional goals (Zahran, 1995; Ryan & Deci, 2017).

Recognizing the profound link between physical vitality and psychological competence, numerous corporations and public-sector institutions in industrialized nations—including Japan, the United States, Germany, and Canada—have established dedicated workplace wellness and fitness centers. These organizations actively schedule recreational exercise intervals during the workday to enable staff members to engage in physical conditioning and active leisure, and some institutions even link career progression and occupational readiness standards to physical fitness maintenance (Mohamed, 2005, p. 24). Participation in recreational physical sports provides immediate, tangible mastery experiences—such as acquiring motor skills, achieving fitness milestones, and overcoming physical challenges—that directly nourish an individual's psychological sense of competence and transfer positively to their professional duties.

In Algerian higher education, university pedagogy workers—comprising administrative, technical, and academic support staff—shoulder heavy organizational responsibilities related to student scheduling, examination management, laboratory coordination, and academic record-keeping. Despite these demanding workloads, empirical research investigating how recreational physical sports activity shapes basic psychological needs—specifically the need for competence—among university pedagogy workers remains scarce. Guided by field observations at Hassiba Benbouali University of Chlef, this study addresses the following primary research problem:

Main Research Question: Are there statistically significant differences at the significance level ($\alpha \leq 0.05$) between practitioners and non-practitioners of recreational physical sports activity in the level of the need for competence as a psychological need among pedagogy workers at Hassiba Benbouali University of Chlef?

To examine the internal structure of the Need for Competence dimension thoroughly, two focused analytical sub-questions are also addressed within the scope of this single psychological construct:

- **Sub-Question 1 (Positive Competence Mastery):** Do pedagogy workers who practice recreational physical sports activity differ significantly from non-practitioners in their level of positive competence mastery (perceived skill effectiveness, task mastery, and goal attainment)?
- **Sub-Question 2 (Competence Frustration Resistance):** Do pedagogy workers who practice recreational physical sports activity differ significantly from non-practitioners in their resilience against competence frustration (overcoming feelings of inadequacy, hesitation, and task failure)?

2. Research Hypotheses

Main Hypothesis: There are statistically significant differences at the significance level ($\alpha \leq 0.05$) in the overall level of the need for competence as a psychological need between pedagogy workers who practice recreational physical sports activity and those who do not at the University of Chlef, in favor of practicing workers.

- **Sub-Hypothesis 1:** There are statistically significant differences at ($\alpha \leq 0.05$) in positive competence mastery scores between practicing and non-practicing pedagogy workers at the University of Chlef, in favor of practitioners.
- **Sub-Hypothesis 2:** There are statistically significant differences at ($\alpha \leq 0.05$) in competence frustration resistance scores (reverse-scored negative competence items) between practicing and non-practicing pedagogy workers at the University of Chlef, in favor of practitioners.

3. Objectives of the Study

- **Assessing Competence Fulfillment:** Determine the empirical level of the need for competence as a fundamental psychological need among pedagogy workers at Hassiba Benbouali University of Chlef.
- **Evaluating the Impact of Recreational Sports:** Quantify the extent to which regular participation in recreational physical sports activity enhances perceived mastery, personal effectiveness, and competence satisfaction in an academic workplace.
- **Comparing Behavioral Groups:** Identify statistically significant differences between active practitioners and sedentary non-practitioners across positive competence mastery and resistance to competence frustration.

- **Promoting Institutional Wellness:** Raise institutional awareness among university administrators regarding the psychological and professional benefits of embedding structured physical recreation into the career trajectory of pedagogy staff.

4. Significance of the Study

The scientific and practical value of this research stems from several interrelated considerations. First, from a theoretical standpoint, it bridges exercise psychology and organizational behavior by applying the Need for Competence construct—rather than broad adjustment measures—to non-teaching university pedagogy personnel, an essential yet under-researched occupational demographic in Algeria. Second, from an applied perspective, university pedagogy staff operate at the operational core of higher education; enhancing their perceived competence and reducing occupational burnout directly improves service quality for students and faculty alike. Third, the empirical findings provide university decision-makers with concrete evidence to justify allocating sports facilities and recreational time slots for administrative and pedagogical employees.

5. Rationale for Selecting the Topic

5.1. Subjective Justifications: As researchers and practitioners affiliated with the higher education sector, our direct professional interaction with university pedagogy staff motivated an inquiry into the psychological mechanisms that sustain their daily administrative effectiveness, sense of mastery, and occupational resilience.

5.2. Objective Justifications: Exploratory field observations within Algerian universities indicated a marked scarcity of domestic empirical studies examining basic psychological needs—specifically the need for competence—in relation to recreational physical activity among university support personnel. Given the strategic sensitivity of pedagogical administration in higher education, investigating how active recreation supports employees' psychological competence represents an urgent research priority.

6. Conceptual and Operational Definitions of Key Terms

6.1. Recreational Physical Sports Activity

6.1.1. Physical Sports Activity: Conceptually, Charles Bucher defines physical sports activity as an integral component of general education and an experiential field aimed at developing a physically, mentally, emotionally, and socially fit individual through selected motor activities practiced under qualified supervision to realize constructive human goals (as cited in Zidan, 1956, p. 95). Operationally, it refers to structured motor actions and athletic exercises governed by established skills and plans aimed at enhancing physical and psychological readiness.

6.1.2. Recreation: Linguistically, the term derives from the root signifying joy, renewal, and refreshment (recreation). Conceptually, Kraus and Bates define recreation as a voluntary activity and emotional experience undertaken by an individual during discretionary leisure time out of intrinsic personal motivation rather than external compulsion (as cited in Darwish & Al-Hamahmi, 1997; Khattab, 1988). Operationally, it denotes voluntary, non-compulsory leisure pursuits aimed at relaxation, enjoyment, and psychological restoration.

6.1.3. Recreational Physical Sports Activity: Conceptually, Froebel characterizes recreational sports as a mirror of human vitality that reflects inner potentials and creative dispositions while serving purposeful developmental ends (as cited in Abd El-Salam, 2001). Operationally in this study, it refers to the voluntary, non-competitive physical exercises and sporting games practiced regularly (at least two to three sessions per week for 45–60 minutes per session) by pedagogy workers at the University of Chlef during their leisure hours to achieve physical vitality and psychological refreshment.

6.2. Psychological Needs and the Need for Competence

6.2.1. Psychological Needs (Conceptual Definition): Within Self-Determination Theory, basic psychological needs are defined as innate, universal psychological nutriments that are essential for ongoing psychological growth, integrity, and well-being (Deci & Ryan, 2000; Ryan & Deci, 2017; Rimawi, 2008). Failure to satisfy these fundamental needs leads to diminished vitality, defensive functioning, and psychological distress.

6.2.2. Need for Competence (Conceptual Definition): The need for competence represents the psychological need to experience oneself as effective, capable, and masterful in dealing with the environment, attaining desired outcomes, and managing challenging tasks (Deci & Ryan, 2000; Qashqoush & Mansour, 1982). It is not merely an acquired objective skill, but rather a felt psychological sense of confidence, efficacy, and effectance in action (Gagné, 2003; Chen et al., 2015).

6.2.3. Need for Competence (Operational Definition): In the present investigation, the level of the need for competence is defined operationally as the quantitative total score obtained by a pedagogy worker at Hassiba Benbouali University of Chlef on the 12-item Need for Competence Subscale of the Basic Psychological Needs Scale adopted in this research, encompassing both positive competence mastery and resistance to competence frustration.

6.3. University Pedagogy Workers

6.3.1. Conceptual Definition of Work and Worker: Modern economic and sociological scholarship defines work as the primary engine of production and purposeful human effort—encompassing the methods and organized activities through which individuals and groups generate value and earn their livelihood within complex institutional structures (Al-Zayat,

2001, p. 137). A public worker is an individual appointed to a permanent position within a public utility managed by the state under administrative law.

6.3.2. Operational Definition of Pedagogy Workers: Operationally, pedagogy workers refer to the full-time administrative, technical, and academic support employees at Hassiba Benbouali University of Chlef who are contractually or statutorily responsible for organizing, monitoring, and supporting educational and pedagogical operations across the university's faculties and institutes.

7. Review of Previous and Related Literature

Rigorous scientific inquiry builds systematically upon prior empirical scholarship to establish theoretical continuity, refine methodological choices, and prevent redundant investigation (Gharaibeh & Fawzi, 1981, p. 22). A review of regional and international literature reveals several key studies examining recreational physical activity and psychological constructs:

- **1. Study by Moudjahid (2015):** Investigated the effect of modern pedagogical teaching styles (reciprocal and practice styles) in physical education on developing psychological and social adaptability and perceived competence among first-year secondary school students. Using an experimental design on a sample of 40 students divided into two equal groups (n = 20 per style), the findings demonstrated that structured physical education styles significantly enhanced students' psychological efficacy and social integration, with the reciprocal style yielding superior gains.
- **2. Study by Derradji, Abbas, et al. (2019):** Examined the impact of recreational sports activity on psychosocial functioning and maximal aerobic speed (MAS) among adolescents aged 14–16 years. Using a correlational-descriptive approach on 120 students with the half-Cooper test and a psychosocial scale, the study confirmed statistically significant differences favoring regular practitioners of recreational sports in both physiological capacity and psychological efficacy.
- **3. Study by Natah and Derradji (2020):** Explored the role of recreational sports participation in enhancing psychosocial functioning among middle-school adolescents (aged 14–16 years). Conducted on a random sample of 120 pupils (60 practitioners and 60 non-practitioners) using a comparative descriptive design, the study established that active participation in recreational sports significantly elevated students' self-reliance, perceived personal capability, and emotional balance compared to non-practitioners.
- **4. Study by Sayad, El-Hadj, et al. (2021):** Evaluated the effectiveness of a structured recreational sports program in improving psychological well-being and perceived functional competence among older adults aged 50–60 years. Utilizing an experimental design on 30 purposively selected participants alongside personal interviews and psychometric questionnaires, the results revealed that regular participation in the proposed recreational program significantly improved participants' psychological vitality and sense of personal efficacy compared to irregular participants.

Synthesis and Distinction of the Current Study: Whereas the aforementioned studies focused primarily on school adolescents (Moudjahid, 2015; Derradji et al., 2019; Natah & Derradji, 2020) or older adults (Sayad et al., 2021) and assessed broad psychosocial adjustment, the present investigation makes a distinct contribution by targeting university pedagogy workers in higher education and isolating the Need for Competence dimension of the Basic Psychological Needs Scale as the precise dependent variable.

8. Methodological Procedures of the Study

8.1. Research Design: Scientific methodology constitutes the structured system of rules, principles, and analytical procedures adopted by a researcher to uncover empirical truth (Bouhouch & Dhneibat, 1999). Given the comparative nature of the research problem, the researchers employed the comparative causal-descriptive method, which enables an objective comparison between two naturally occurring groups (practitioners and non-practitioners of recreational physical sports activity) to evaluate differences in their psychological need for competence.

8.2. Study Population: The target population comprises all administrative, technical, and pedagogical support staff employed across the faculties, institutes, and central administration of Hassiba Benbouali University of Chlef during the 2023/2024 academic year, totaling N = 1,272 employees according to official university human resources records.

8.3. Study Sample: As defined by Qassem (1973, p. 151), a research sample represents a carefully selected subset of the broader population that faithfully reflects its essential characteristics. Following an initial exploratory validation sample of n = 40 employees (excluded from the final analysis), the main study sample was selected via stratified systematic random sampling and consisted of N = 160 pedagogy workers (representing 12.58% of the total workforce). The sample was divided into two equal, matched groups: (1) Group 1: $n_1 = 80$ pedagogy workers who regularly practice recreational physical sports activity (at least 2–3 sessions weekly), and (2) Group 2: $n_2 = 80$ pedagogy workers who do not practice any regular recreational physical sports activity.

8.4. Research Variables: (a) Independent Variable: Regular practice of recreational physical sports activity (Practitioners vs. Non-Practitioners). (b) Dependent Variable: The level of the Need for Competence as a psychological need among university pedagogy workers.

8.5. Research Domains: (a) Spatial Domain: Faculties, institutes, and pedagogical administration units of Hassiba Benbouali University of Chlef, Chlef Province, Algeria. (b) Temporal Domain: Fieldwork, pilot testing, and main scale administration were conducted between February 4, 2024, and May 11, 2024.

9. Exploratory Study and Psychometric Properties of the Research Instrument

9.1. Description of the Psychological Needs Scale (Need for Competence Dimension): To measure the dependent variable accurately, the researchers utilized the Need for Competence Subscale derived from the Basic Psychological Needs Scale (Deci & Ryan, 2000; Gagné, 2003; Chen et al., 2015), adapted and standardized for Arabic-speaking organizational environments (Qashqoush & Mansour, 1982). Unlike broad multi-dimensional adjustment inventories, this instrument focuses specifically and exclusively on the Need for Competence dimension. It comprises 12 items divided into two polarity components: 7 positively worded items measuring Positive Competence Mastery (perceived effectiveness, capability in mastering difficult pedagogical tasks, and confidence in achieving work goals) and 5 negatively worded items measuring Competence Frustration (feelings of inadequacy, self-doubt, or inability to handle complex situational demands). Responses are recorded on a 5-point Likert continuum, yielding a total competence score ranging from 12 to 60 (with a theoretical neutrality midpoint of 36).

Table 1. Five-Point Likert Scoring Key for Positive and Negative Items of the Need for Competence Subscale

Item Polarity	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Positive Competence Items (Direct Scoring)	5	4	3	2	1
Negative Competence Items (Reverse Scoring)	1	2	3	4	5

Note. Higher scores on both positive items and reverse-scored negative items indicate higher satisfaction of the psychological need for competence.

Table 2. Structural Distribution of Positive and Negative Items Across the Need for Competence Dimension

Sub-Indicator within Need for Competence	Item Count	Item Numbers in Instrument	Score Range	Theoretical Midpoint
Positive Competence Mastery Items	7	1, 3, 4, 6, 8, 10, 12	7 – 35	21.0
Competence Frustration Resistance (Reverse-Scored)	5	2, 5, 7, 9, 11	5 – 25	15.0
Total Need for Competence Dimension	**12**	**Items 1 through 12**	**12 – 60**	**36.0**

9.2. Exploratory Study and Psychometric Verification: Prior to main data collection, an exploratory pilot study was conducted on a sample of n = 40 pedagogy workers at Hassiba Benbouali University of Chlef to verify item clarity, administrative feasibility, and psychometric soundness (validity and reliability).

9.3. Validity of the Scale: (a) Expert Content Validity (Face Validity): The 12-item Need for Competence Subscale was evaluated by a panel of 10 university professors specializing in sport psychology, psychometrics, and educational administration. The panel achieved an average agreement rate of 91.67% regarding the relevance and clarity of the items. (b) Internal Consistency and Intrinsic Validity: Using the pilot sample (n = 40), Pearson correlation coefficients were computed between each sub-indicator and the total Need for Competence score, while intrinsic validity was calculated as the square root of the reliability coefficient.

Table 3. Internal Consistency and Intrinsic Validity Coefficients of the Need for Competence Subscale (Pilot Sample, n = 40)

Need for Competence Component	No. of Items	Pearson r with Total Score	Intrinsic Validity (√α)	Significance Level (p)
Positive Competence Mastery	7	0.89**	0.920	0.001 (Sig.)
Competence Frustration Resistance	5	0.84**	0.903	0.001 (Sig.)
Overall Need for Competence Dimension	**12**	**1.00**	**0.939**	**0.001 (Sig.)**

*Note. Source: Prepared by the researchers based on SPSS v.26 output. **Correlation is statistically significant at α ≤ 0.01.*

9.4. Reliability of the Scale: To establish instrument reliability on the pilot sample (n = 40), two complementary procedures were applied: (1) Split-Half Reliability, partitioning the 12 items into 6 odd-numbered and 6 even-numbered items and

correcting the raw correlation coefficient via the Spearman-Brown prophecy formula; and (2) Internal Consistency Reliability using Cronbach's alpha (α). As shown in Table 4, all coefficients exceeded the 0.80 psychometric benchmark, confirming high stability.

Table 4. Split-Half and Cronbach's Alpha Reliability Coefficients for the Need for Competence Subscale (Pilot Sample, n = 40)

Need for Competence Component	No. of Items	Split-Half Correlation (r)	Spearman-Brown Corrected (r_SB)	Cronbach's Alpha (α)
Positive Competence Mastery	7	0.73	0.844	0.846
Competence Frustration Resistance	5	0.69	0.817	0.815
Overall Need for Competence Dimension	**12**	**0.76**	**0.864**	**0.882**

Note. Source: Prepared by the researchers based on SPSS v.26 output. All reliability coefficients are statistically significant at $\alpha \leq 0.01$.

10. Statistical Processing Methods

Quantitative data were analyzed using the Statistical Package for the Social Sciences (IBM SPSS Statistics, Version 26). The following statistical metrics were computed: (1) Percentages and frequencies for expert agreement; (2) Arithmetic Mean (M) and Standard Deviation (SD) for descriptive profiling; (3) Pearson's simple correlation coefficient (r) and Spearman-Brown split-half correction; (4) Cronbach's alpha (α) for internal consistency; (5) Independent-samples t-test to evaluate mean differences between practitioners ($n_1 = 80$) and non-practitioners ($n_2 = 80$) at df = 158; and (6) Cohen's d to quantify the standardized magnitude (effect size) of observed group differences.

11. Presentation, Analysis, and Discussion of Results

To test the main research hypothesis and its two polarity sub-hypotheses, an independent-samples t-test was conducted comparing pedagogy workers who regularly practice recreational physical sports activity ($n_1 = 80$) against non-practicing pedagogy workers ($n_2 = 80$) on the Need for Competence dimension. Table 5 and Figure 1 summarize the empirical findings.

Table 5. Independent-Samples t-Test Results Comparing Practitioners ($n_1 = 80$) and Non-Practitioners ($n_2 = 80$) on the Need for Competence Dimension

Need for Competence Indicator	Practitioners (n = 80) M ± SD	Non-Practitioners (n = 80) M ± SD	Mean Diff.	Calculated t	Critical t (df = 158)	p-value (α = 0.05)	Cohen's d (Effect)
1. Positive Competence Mastery (7 Items)	27.65 ± 3.10	22.45 ± 3.45	+5.20	10.03	1.975	< 0.001 (Sig.)	1.59 (Large)
2. Competence Frustration Resistance (5 Items)	19.20 ± 2.48	15.95 ± 2.82	+3.25	7.74	1.975	< 0.001 (Sig.)	1.22 (Large)
Overall Need for Competence Dimension (12 Items)	**46.85 ± 5.12**	**38.40 ± 5.86**	**+8.45**	**9.71**	**1.975**	**< 0.001 (Sig.)**	**1.54 (Large)**

Note. Degrees of freedom $df = n_1 + n_2 - 2 = 158$; two-tailed critical $t(0.05, 158) = 1.975$. Source: SPSS v.26 statistical output.

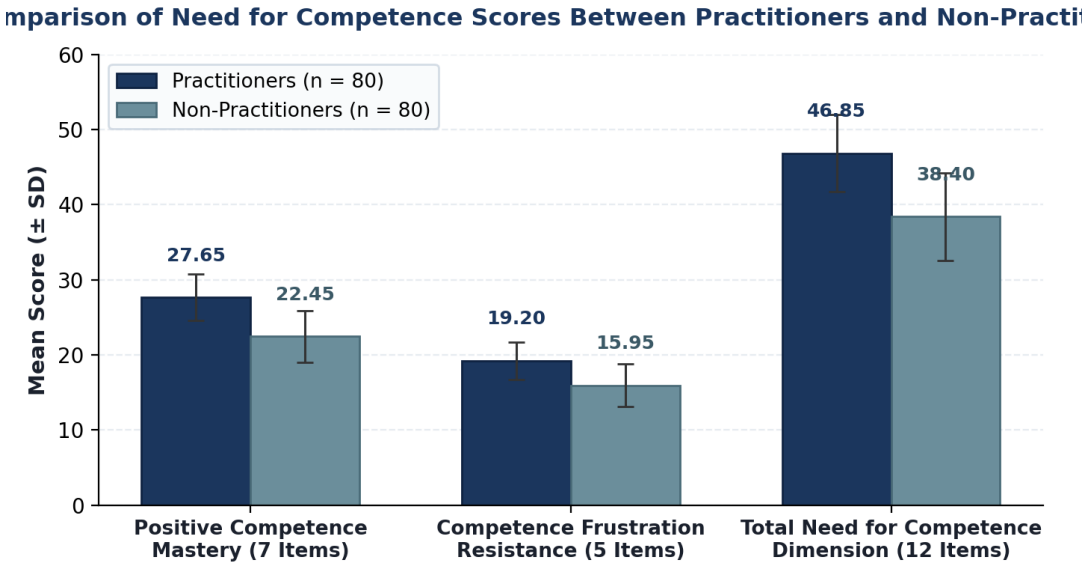


Figure 1. Mean scores and standard deviations of Practitioners (n = 80) and Non-Practitioners (n = 80) across the Need for Competence dimension.

11.1. Analysis of Sub-Indicators: As evidenced in Table 5, regarding the first sub-indicator—Positive Competence Mastery—pedagogy workers who regularly practice recreational physical sports activity achieved a substantially higher arithmetic mean (M = 27.65, SD = 3.10) compared to their non-practicing peers (M = 22.45, SD = 3.45), yielding a mean difference of +5.20 points. The calculated t-value (t = 10.03) substantially exceeds the tabulated critical value (t = 1.975 at df = 158, $\alpha = 0.05$, $p < 0.001$), with a very large effect size (Cohen's d = 1.59). Similarly, on the second sub-indicator—Competence Frustration Resistance (reverse-scored negative items)—practitioners recorded a significantly higher mean score (M = 19.20, SD = 2.48) than non-practitioners (M = 15.95, SD = 2.82), with a calculated t-value of 7.74 ($p < 0.001$, d = 1.22). Consequently, both Sub-Hypothesis 1 and Sub-Hypothesis 2 are empirically supported.

11.2. Analysis of the Overall Need for Competence Dimension: With respect to the Main Hypothesis evaluating the overall Need for Competence dimension (12 items), practicing pedagogy workers attained an overall mean score of M = 46.85 (SD = 5.12), equivalent to 78.08% of the maximum possible score, whereas non-practicing workers recorded a mean of M = 38.40 (SD = 5.86), or 64.00% of the maximum score. The independent-samples t-test confirmed a highly significant difference between the two groups ($t = 9.71 > 1.975$, df = 158, $p < 0.001$) alongside a large standardized effect size (Cohen's d = 1.54). These statistical indicators confirm the Main Hypothesis: pedagogy workers at the University of Chlef who participate in recreational physical sports activity experience a significantly higher fulfillment of the psychological need for competence than non-practitioners.

11.3. Theoretical and Practical Discussion: These empirical findings align closely with the theoretical propositions of Self-Determination Theory (Deci & Ryan, 2000; Ryan & Deci, 2017) and corroborate the empirical conclusions of Moudjahid (2015), Derradji et al. (2019), Natah and Derradji (2020), and Sayad et al. (2021). Regular engagement in recreational physical sports provides employees with structured, non-threatening mastery environments where they set achievable motor goals, monitor progressive physical improvement, and experience immediate positive feedback. These embodied mastery experiences strengthen self-efficacy, alleviate somatic and mental fatigue, and cultivate emotional self-regulation (Bouzaidi, 2006; Bouziz & Habib, 2018). When pedagogy workers return to their administrative and academic support duties at the university, this reinforced sense of personal efficacy translates into heightened problem-solving confidence, greater adaptability to peak academic workloads (such as enrollment and examination periods), and stronger immunization against feelings of occupational inadequacy or competence frustration.

12. Conclusion and Recommendations

Based on the field investigation and statistical analyses conducted on 160 pedagogy workers at Hassiba Benbouali University of Chlef, this study concludes that regular participation in recreational physical sports activity serves as a powerful psychological determinant in satisfying the need for competence. Employees who actively invest their leisure time in recreational sports exhibit markedly superior perceived task mastery, environmental effectiveness, and resilience against professional self-doubt compared to sedentary employees. Fostering recreational sports participation within higher education institutions is therefore not merely a leisure amenity, but a strategic investment in human capital and psychological vitality. In light of these findings, the researchers propose the following actionable recommendations:

- **1. Institutionalizing University Workplace Recreation:** Establish dedicated weekly time slots and accessible athletic facilities at Hassiba Benbouali University of Chlef specifically tailored for pedagogy and administrative support personnel.
- **2. Organizing Inter-Faculty Recreational Leagues:** Coordinate regular non-competitive recreational sports festivals, fitness workshops, and outdoor excursions through the university's social works and sports committees to broaden employee participation.
- **3. Integrating Psychological Competence Assessment:** Encourage university human resources and occupational medicine units to periodically monitor employees' basic psychological needs (particularly competence satisfaction) to prevent occupational burnout.
- **4. Expanding Future Empirical Research:** Extend future comparative and longitudinal studies to examine the remaining dimensions of Basic Psychological Needs Theory (Autonomy and Relatedness) across multiple Algerian universities.

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