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A Comparative Study of Stress Levels between Athletes and Non-Athletes

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1. ABSTRACT

The present study investigates and compares stress levels between athletes and non-athletes.The sample consisted of 200 participants, including 100 athletes who regularly participate in structured sports activities and 100 non-athletes with no regular physical activity. To examine group differences, a t-test was employed. The results indicated that athletes exhibited a lower mean stress score (M = 21.00, SD = 7.66), whereas non-athletes demonstrated a substantially higher mean score (M = 48.00, SD = 14.54). The t-test revealed a significant difference, t (19.71) = –6.15, p < .001, indicating that non-athletes experience considerably higher stress than athletes. The findings support previous research that highlights the positive psychological benefits of sports participation. The study concludes that regular involvement in sports helps reduce stress and improves coping ability among students.The study highlights the importance of promoting sports participation as a strategy to enhance psychological well-being.

KEYWORDS

Stress, Athletes, Non-Athletes, Comparative Study, t-Test, Sports Psychology

2. INTRODUCTION

Stress is a psychological and physiological response that occurs when people feel that outside pressures are greater than what they can handle. Students often experience high levels of stress because of academic demands, social expectations, and various lifestyle difficulties. Studies repeatedly show that unmanaged stress harms concentration, mental health, social interactions, and physical health. Taking part in sports is commonly recognized as an effective way to reduce stress. Athletes typically benefit from structured organized routines, regular physical activity, and consistent engagement in goal-directed activity. These elements collectively help improve resilience and the ability to cope with stress. Previous studies strongly support this viewpoint. Abedi (2010) reported that athletes experience less stress than non-athletes. Giurgiu and Damian (2015) also identified the same pattern in university students. Singh (2019) and SuvarnaSankar (2016) further confirmed that regular participation in sports lowers psychological stress. This study fills that gap by examining stress levels in athletes and non-athletes using a structured yes/no questionnaire and applying statistical tests to compare their stress levels.

3. OBJECTIVES OF THE STUDY

The objectives of this study are to compare stress levels between athletes and non-athletes.

4.HYPOTHESIS

There is a significant difference in stress levels between athletes and non-athletes.

5. SIGNIFICANCE OF THE STUDY

This study provides valuable insight into how taking part in sports helps in managing stress. The results are useful for teachers, physical education departments, university authorities, and mental health professionals. These findings can guide institutions in creating programs that encourage sports participation as a way to help students reduce and manage stress more effectively.

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6. METHODOLOGY

The study adopted a quantitative comparative research design to examine differences in stress levels between athletes and non-athletes. A standardized 14-item dichotomous (Yes/No) stress questionnaire was used as the primary instrument for measuring stress-related responses across emotional, behavioral, and physical domains. The approach allowed for a direct comparison of stress indicators between the two groups based on the frequency of Yes responses recorded for each questionnaire item.

6.1 SELECTION OF SUBJECT

A total of 200 participants were selected through purposive sampling to ensure equal representation of both groups. The sample consisted of 100 athletes who regularly participated in structured sports activities and 100 non-athletes who were not engaged in consistent physical training. All subjects were drawn from selected educational institutions, ensuring uniformity in age range and academic background.

6.2 SELECTION OF VARIABLES

The primary variable considered in the study was stress, measured through the questionnaire responses. The grouping variable categorized participants into two distinct groups—athletes and non-athletes—based on their involvement in regular sports activities. These variables were essential for establishing the comparative nature of the study.

6.3 SELECTION OF TOOL

The tool selected for data collection was a validated 14-item stress questionnaire designed to capture stress-related symptoms in a simple and measurable format. The dichotomous Yes/No structure ensured clarity for respondents and facilitated straightforward scoring, making it appropriate for large-sample comparisons.

6.4 CRITERION MEASURES

In this study, the response “Yes” was coded as 1 and “No” as 0. A greater number of Yes responses reflected a higher level of stress experienced by the participants. These coded values provided quantifiable data for statistical analysis and allowed for comparison across the two groups.

6.5 TEST ADMINISTRATION

The questionnaire was administered individually in a quiet and controlled environment to ensure accuracy and minimize distractions. Participants were given clear instructions before beginning the test, and confidentiality was assured to encourage honest and unbiased responses. All subjects completed the questionnaire in one sitting, ensuring uniformity in data collection procedures.

6.6 ANALYSIS AND INTERPRETATION

The statistical analysis for the study involved both descriptive and inferential methods to compare stress levels between athletes and non-athletes. Descriptive statistics were first calculated to determine the mean and standard deviation of the Yes-responses for each group, based on the 14-item stress questionnaire.

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These values provided an initial understanding of the overall stress trends within each category. Athletes recorded a mean stress score of 21.00 with a standard deviation of 7.66, whereas non-athletes exhibited a substantially higher mean of 48.00 with a standard deviation of 14.54, indicating notable differences in stress levels. To statistically examine whether this difference was significant, an independent-samples t-test was applied. A t-test was selected because the two groups demonstrated unequal variances, making it a more appropriate and reliable method than the standard t-test under such conditions. The analysis produced a t-value of –6.15 with 19.71 degrees of freedom and a p-value less than .001. This result indicated a highly significant difference between athletes and non-athletes, with non-athletes experiencing much higher stress. The interpretation of these findings confirms that stress levels differ substantially between the two groups. The significantly higher stress reported by non-athletes suggests that the absence of regular sports participation may contribute to increased emotional or psychological strain. It shows that athletes appear to benefit from structured physical activity, discipline and supportive social environments associated with sports, which may help reduce and manage stress more effectively. The statistical results support the conclusion that athletes exhibit significantly lower stress levels than non-athletes.

7. RESULTS

The results of the study clearly indicate the difference in stress levels between athletes and non-athletes. Based on the analysis of the 14-item Yes/No stress questionnaire, non-athletes showed considerably higher frequencies of Yes-responses, reflecting greater stress across emotional, physical, and behavioral domains. The descriptive statistics revealed that athletes had a mean stress score of 21.00, while non-athletes recorded a significantly higher mean of 48.00. This difference was further validated through independent-samples t-test, which produced a statistically significant result. The findings collectively show that individuals who are not engaged in regular physical activity tend to experience elevated stress levels compared to those who participate in sports on a consistent basis.

Group	Mean Stress (Yes)	SD
Athletes	21.00	7.666
Non-Athletes	48.00	14.539

Table 1.1

Table 1.1 This table presents the mean and standard deviation of stress scores for both groups. The pre-analysis description shows that athletes consistently reported fewer Yes-responses, whereas non-athletes demonstrated considerably higher counts. The post-analysis interpretation confirms the clear distinction between the groups in terms of stress levels.

Comparison	t-value	DF	p-value
Athletes vs Non-Athletes	–6.15	19.71	< .001

Table 1.2

Table 1.2 This table displays the inferential results. The pre-analysis expectation was to test whether the difference between groups was statistically meaningful. The post-analysis conclusion confirms that non-athletes experience significantly higher stress.

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7.2 FINDINGS AND KEY FINDINGS

The study showed a clear difference in stress levels between athletes and non-athletes. Athletes reported fewer stress-related responses on the questionnaire, while non-athletes showed much higher stress across most items. This indicates that students who take part in sports tend to handle stress better than those who do not participate in regular physical activity. The comparison between the two groups confirmed that this difference was significant and not due to chance. Non-athletes consistently scored higher on stress, suggesting that a lack of physical activity may lead to greater emotional pressure. Athletes appear to benefit from regular exercise, structured routines and supportive team environments, which help reduce stress. The key finding of the study is that **participation in sports is strongly linked to lower stress levels**, making it an effective way for students to manage and cope with stress.

7.3 DISCUSSION OF HYPOTHESIS

The results of the study clearly support the hypothesis that athletes and non-athletes differ significantly in their stress levels. The strong level of significance ($p < .001$) confirms that this difference is meaningful and not due to chance. These findings align with earlier research showing that athletes generally experience lower stress compared to individuals who do not participate in sports. The results also highlight that regular involvement in sports contributes to better stress management and improved coping abilities. Physical activity plays an important role in maintaining psychological well-being.

7.4 CONCLUSION

The study demonstrates that athletes show noticeably lower stress levels than non-athletes. Regular involvement in sports provides several psychological advantages, including better discipline, consistent routines and stronger stress-coping abilities. Non-athletes may be more prone to emotional and physical stress because they do not engage in such structured and supportive activities. The findings emphasize the value of encouraging students to participate in sports and physical activity as an effective way to improve their mental health and overall well-being.

7.5 RECOMMENDATIONS

The study suggests that schools and colleges should provide regular and well-organized sports programs to encourage students to take part in physical activities. Non-athletes, in particular, could benefit from stress-management workshops and opportunities for recreational sports. Future research should follow participants over a longer period, include individual-level data for more detailed results and also explore stress levels in other age groups. Educational institutions could also develop sports-based wellness programs to help improve student's overall mental health and well-being.

8. REFERENCES

Giurgiu, R.-L., & Damian, M. (2015).*Stress & coping in athletes and non-athletes students – Comparative study*. Procedia – Social and Behavioral Sciences, 180, 332–337. https://doi.org/10.1016/j.sbspro.2015.02.125

Abedi, B. (2010). A comparative study of stress level among athletes and non-athletes.*Developmental Psychology: Journal of Iranian Psychologists, 6*(23), 261–268.

Singh, A. (2019). *A study of stress motivation and team cohesion among athletes in relation to different performance levels* (Doctoral thesis, Panjab University). Department of Physical

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Education.http://hdl.handle.net/10603/293524

SuvarnaSankar, P. S. (2016). *Training stress and its effects: A study among athletes and burnt out athletes of Kerala* (Doctoral thesis, Pondicherry University). Department of Physical Education and Sports.http://hdl.handle.net/10603/237365

Aldwin, C. M. (1994). Stress, coping and development: An integrative perspective. New York: Guilford.

Altfeld, S., & Kellmann, M. (2014). Analysis of the recovery-stress state of German coaches. Zeitschrift fur Sport psychologie, 21(4), 137-148.