

DEPRESSION AMONG SPORTSPERSONS AND NON-SPORTSPERSONS: A COMPARATIVE STUDY

Shaina Parveez

Research Scholar, Department of Psychology, D.A.V. (PG) College Dehradun
 &

Dr. Neeta Gupta

Professor, Department of Psychology, D.A.V. (PG) College Dehradun

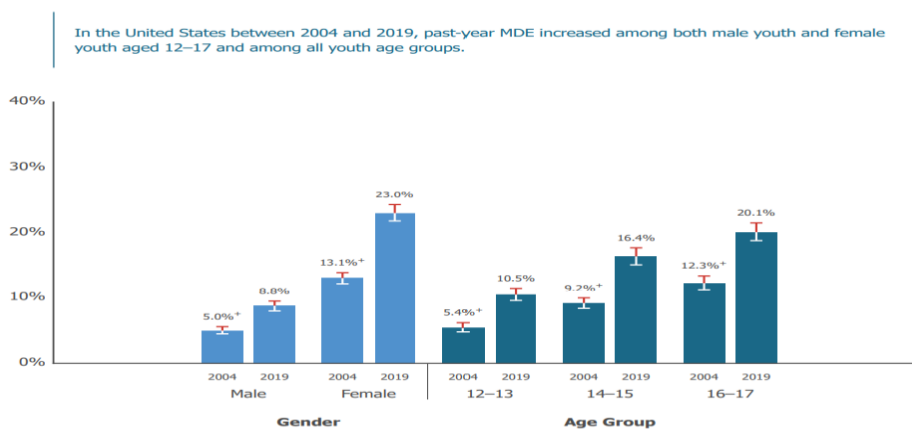
Abstract: Depression is considered as mental health condition in which one can go through persistent feeling of hopelessness, loneliness or sadness. It can visibly affect person’s cognitions, behaviour as well as physical health, it also can alter person’s social relationships, personal surrounding and work place. This comparative study investigated difference in perceived depression between Sportspersons and Non-sportspersons, male and female; involving 100 participants, age range 17 to 25, which was selected through simple random sampling technique. The Beck Depression Inventory (BDI-II) facilitated data collection, Mean, SD and t-test was calculated for statistical analysis. The Results indicated a significant difference in Depression levels between Sportspersons and Non-sportspersons, accompanied by a significant gender difference.

Key words: Depression, Sportsperson, Non-sportsperson.

INTRODUCTION

Approximately 6.7% of adults, (or one in every fifteen) suffer from depression in each year, and 16.6%, or one in every six people, will experience depression at some point in their life. Notwithstanding the fact that depression can hit at any age, it is more common in late adolescence or early adulthood. Women are more likely than men to suffer from depression. According to research, around one-third of women will experience a major depressive episode at some point in their life. Furthermore, there is a significant hereditary component, with an estimated 40% of first-degree relatives (parents, siblings, or children) having a high heritability of depression. (APA 2023) [7]

Changes in Past-Year Major Depressive Episode (MDE) among Youth Aged 12–17 in the United States, by Gender and Age Group (2004 and 2019)³



Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2004 and 2019.[9]

Who can have Depression

While depression can impact individuals of various ages and backgrounds, the likelihood of experiencing depression is heightened by factors such as unemployment, poverty, significant life changes; like the loss of a loved one or the end of a relationship, physical health challenges, and complications arising from drug abuse and alcohol (WHO 2017) [10]

Why it can be more in Adolescents

Although Depression can affect all gender and ages however a few populations can be more susceptible in comparison to others. Depression or Major Depressive Disorder (MDD) often found manifesting in between the ages of 35 to 40, even in the age of between 18 to 25 years maximum chances of experiencing at least one major depressive episode (Benjamin Lee, MPH, 2023) [3]

Why it can be more in Sportsperson

In their systematic literature review, Rice et al. (2016) challenged the misconception that elite athletes are immune to mental health issues. They found that the athletic population is indeed susceptible to such problems, particularly during the peak competitive years that coincide with the highest risk period for the onset of mental disorders. Notably, the research highlighted a concerning trend: athletes often refrain from seeking support for mental health concerns due to the stigma associated with it, viewing help-seeking as a sign of weakness. This emphasizes the urgent need for interdisciplinary collaboration to address unanswered questions and break down the barriers preventing athletes from accessing essential mental health support.[8]



Simone Biles has openly spoken about her psychological struggles

Simone Biles, a one in a century extraordinary American gymnast and one of the most successful Athlete is one best example, she has won 25 medals in the World championships. At the 2021 Olympic Games in Tokyo, 24-year-old Simone decided to withdraw from many competitions, and explained her psychological issues.[4]

METHODOLOGY

Research Objectives:

1. To explore differences on perceived depression among Sportsperson & Non-sportsperson Adolescents
2. To explore gender differences on perceived depression among male & female Adolescents.

Hypotheses:

1. There will be a significant difference between Sportspersons and Non-sportspersons adolescent on depression.
2. There will be a significant difference between male and female adolescents on depression

Material and Methods:

- Beck Depression Inventory 2 (BDI-II) [1] Developed in 1996; is a reliable tool with 21 objective-style items. This questionnaire was used to gather information for this study on adolescent depression.
- Sampling Technique: Simple random sampling technique was used for sample collection.

Sample:

A sample of 100 respondents (50 sportsperson and 50 non-sportsperson); (50 Male and 50 female) were chosen through simple random sampling method. Age range of the participants was 17 to 25.

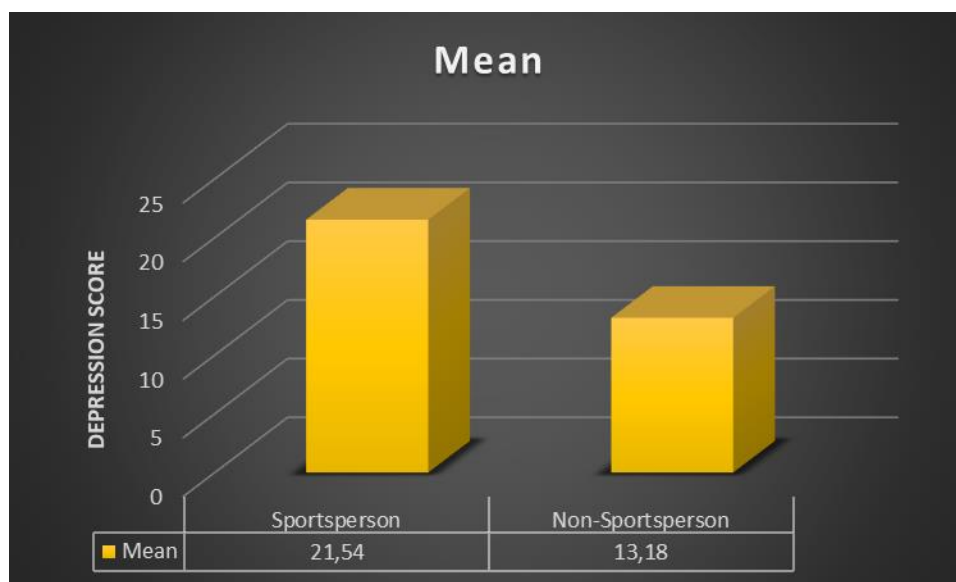
Statistical-Tools:-The data was analyzed using Mean, S.D. and t-test.

Table 1: Description of Study Sample

	Male	Female
Sportspersons	25	25
Non-sports persons	25	25

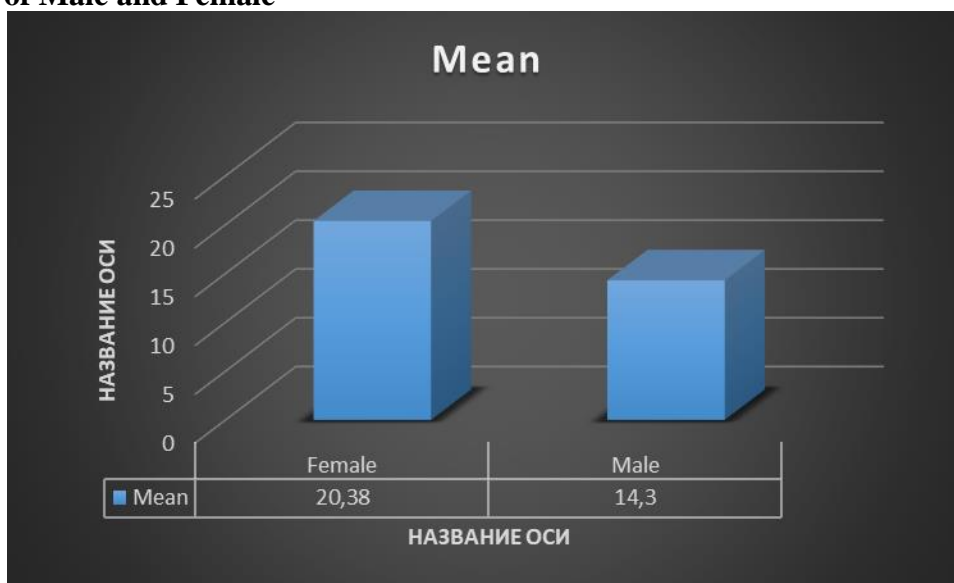
Results & Interpretation

Graph 1:



Interpretation: Sportspersons (21.54) have a higher mean score on Depression than non-sportspersons (13.18), indicating a potentially higher severity of depression symptoms in Sportsperson.

Graph 2: Mean of Male and Female



Interpretation: The mean score of Depression in Female (20.38) as compared to Male (14.3) indicates that on an average girls experience higher depression; measured by BDI-2.

Table 2: Mean, SD, SEM and t-test for Sportsperson and Non-sportsperson

	N	Mean	SD	SEM	t-test	Results
Sportsperson	50	21.54	8.4881911	1.2004115	0.000000633673	Significant
Non-Sportsperson	50	13.18	7.10759869	1.00516625		

Interpretation: Sportsperson have a higher mean score on Depression than non-sportsperson, indicating a potentially higher severity of depression symptoms in Sportsperson.

Variability: The Standard Deviation represents the range of scores. Sportspersons have a higher SD, suggesting higher variability in BDI-2 scores within the group of Sportsperson.

Precision: Standard Error of the Mean estimates how closely the sample mean corresponds to the population mean. When compared to non-sportspersons, Sportsperson had a greater SEM, indicating a less precise approximation of the mean.

In the context t-test calculated here, a p-value of **0.000000633673** indicates a very small value. This p-value is below traditional significance levels (i.e. 0.05) in hypothesis testing, providing strong evidence to accept the alternate hypothesis.

Table 3: Mean, SD, SEM and T-test of boys and girls

	N	Mean	SD	SEM	t-test	Results
Girls	50	20.38	9.391464	1.328154	0.000461	Significant
Boys	50	14.3	7.200482	1.018302		

Interpretation:

The presented data compares the mean scores of depressive symptoms between girls and boys, assessed using the Beck Depression Inventory (BDI-2). The results indicate a statistically significant difference (t-test p-value = 0.000461) between the two groups.

Girls (N=50):

Mean of Depression Score: 20.38

Standard Deviation (SD): 9.391464

Standard Error of the Mean (SEM): 1.328154

Boys Group (N=50):

Mean of Depression Score: 14.3

Standard Deviation (SD): 7.200482

Standard Error of the Mean (SEM): 1.018302

Interpretation:

Girls, on average, have a higher mean depressive symptom score (20.38) compared to boys (14.3). The larger standard deviation in the girls' group suggests higher variability in depressive symptom scores within that group. These findings suggest a significant gender-based difference in reported depressive symptoms, with girls tending to report higher levels than boys.

t-test calculated, a p-value of 0.000461 indicates a very small value. This p-value is below traditional significance levels (i.e. 0.05) in hypothesis testing, The lower p-value indicates a significant difference in Depression scores between girls and boys. which provides strong evidence to accept the alternate hypothesis.

Results: Therefore, from the statistical analysis it is proved that:

Hypothesis 1: There will be a significant difference between sportsperson and non-sportsperson adolescent in depression.

In the context t-test calculated here, a p-value of 0.000000633673 indicates a very small value. This p-value is below traditional significance levels (i.e. 0.05) in hypothesis testing, providing strong evidence to accept the alternative hypothesis & reject the null hypothesis.

Hypothesis 2: There will be a significant difference between male and female adolescent in depression

t-test calculated, a p-value of 0.000461 indicates a very small value. This p-value is below traditional significance levels (i.e. 0.05) in hypothesis testing, The lower p-value indicates a significant difference in Depression scores between girls and boys. which provides strong evidence to accept the present hypothesis.

Discussion: Depression is characterized by persistent incessant feelings of sadness, emptiness, or irritability. It can impact both mental and physical well-being, significantly affecting daily functioning and, in severe cases, leading to suicide. Unfortunately, false perceptions contribute to about 60% of individuals not seeking medical help for depression. The disorder frequently follows a pattern of recurring episodes, leading to a careful prognosis and a compromised quality of life for those who are affected.[6] Athlete students are often considered as one of the populations who face significantly more life challenges and have a higher propensity for engaging in health risk behaviour. (Divin, 2009).[5] In terms of gender differences (i.e., Depression in male and female), Yand et al (2007) found significant gender difference in Depression; Female college student-athletes demonstrate higher rates of anxiety and depression symptoms than their male peers. [2]

The objective of the current study was to do a comparative analysis of depression in Sportsperson and non-sportsperson, male and female, it was hypothesized that sportspersons and non-sportspersons will differ significantly in Depression, Significant gender difference was also hypothesized; the results of the study revealed that there is significant difference in depression levels between sportsperson and non-sportsperson, Significant difference also found between male and female adolescents.

Conclusion: It can be concluded that the findings of this study indicates that there is significant difference in depression levels between sportsperson and non-sportsperson, as well as between male and female adolescents. This research sparks the drive for more studies delving into how sports can affect mental well-being of sportspersons. By unravelling the complexity of this connection between sports and Depression, we can pave the way for actions that prevent issues, step in early when needed, and create support systems specifically designed for the mental health concerns of sportspersons. Moreover, the findings that athletes may experience higher levels of depression goes against common beliefs, emphasizing the call for personalized approaches to address their mental health. This study not only challenges preconceived notions but also encourages us to dive deeper into understanding the complex relationship between sports and mental well-being. More research is needed to investigate the specific forms of sports and the possible reasons causing this difference in depression rates.

Conflict of Interest: The authors declare no conflict of interest.

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