

A Comparative Study of Psychological Problems with Respect to Depression Between Swimmers and Non-Swimmers in the Age Group of 24–30 Years

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Abstract: The present study aimed to compare psychological problems with respect to depression between swimmers and non-swimmers aged 24–30 years. A total of 185 participants were selected for the study, comprising 69 swimmers and 116 non-swimmers. Depression levels were assessed using a standardized psychological depression scale. Descriptive statistics, including mean scores and standard deviations, were computed, and an independent samples t-test was applied to determine group differences. The results revealed that non-swimmers ($M = 18.67$, $SD = 3.54$) exhibited significantly higher depression levels than swimmers ($M = 16.32$, $SD = 3.12$). The obtained t-value ($t = 3.25$) was statistically significant at the 0.05 level, indicating a meaningful difference between the two groups. The findings suggest that regular participation in swimming may play a protective role in reducing depressive symptoms. The study highlights the importance of physical activity, particularly swimming, as a potential intervention for improving mental health among young adults.

Keywords: Depression, Psychological Problems, Swimmers, Non-Swimmers, Physical Activity

INTRODUCTION

Depression is one of the most prevalent and debilitating psychological disorders worldwide, significantly affecting emotional well-being, social functioning, and quality of life. Major depressive disorder has been identified as the most commonly diagnosed mental health condition globally (Kessler et al., 2005; Singh 2020a). Symptoms such as persistent sadness, lack of motivation, fatigue, and impaired concentration negatively influence both personal and professional life, particularly among young adults.

In recent years, increasing attention has been directed toward non-pharmacological approaches for managing depression. Physical activity has emerged as an effective and accessible intervention for reducing depressive symptoms. National and international health organizations strongly recommend regular physical activity as an essential component of depression treatment programs (National Institute for Clinical Excellence, 2009; World Health Organization, 2016). Empirical evidence suggests that exercise contributes to neurochemical changes, including increased endorphin release and improved neurotransmitter regulation, which help alleviate depressive symptoms.

Swimming, as a form of aerobic physical activity, offers unique psychological benefits. The rhythmic movements, controlled breathing, and immersive environment of swimming promote relaxation and mental calmness. Research has shown that exercise-based interventions are effective in reducing depression whether implemented independently or alongside medication (Kvam et al., 2016; Singh 2020). Furthermore, long-term engagement in physical activity combined with medication has been found to be more effective in preventing depression relapse compared to medication alone (Babyak et al., 2000; Singh, 2019).

Despite growing evidence supporting the mental health benefits of physical activity, limited studies have directly compared depression levels between swimmers and non-swimmers within the same age group. Therefore, the present study aimed to examine psychological problems with respect to depression among swimmers and non-swimmers aged 24–30 years.

METHODS

Participants

The study sample consisted of 185 participants aged between 24 and 30 years. Among them, 69 participants were swimmers, while 116 participants were non-swimmers. Participants were selected using purposive sampling.

Tool

Depression was measured using a standardized psychological depression scale with established reliability and validity.

Procedure

The questionnaire was administered under standardized conditions. Participants were briefed about the purpose of the study, and confidentiality was assured. Responses were scored according to the scale manual.

Statistical Analysis

Mean scores and standard deviations were calculated for both groups. An independent samples t-test was used to determine the significance of differences between swimmers and non-swimmers. The level of significance was set at 0.05.

TABLE –1.
DEMOGRAPHIC INFORMATION OF SWIMMERS

Sr.No.	Demographic information of Swimmers	Percentage (%)
1	Sleep less than 6 Hrs	33.89%
2	Use of social media	90.50%
3	Smoking/Drinking	09.11%
4.	feelings of worthlessness	18.90%
5	Family History of any Psychological Problem	06.10%
6	Felling Irritability	24.00%

Table-1 indicates the percentage of Demographic information of Swimmers.

The table presents key lifestyle and psychological characteristics of the swimmer participants expressed in percentages. It shows that **33.89%** of swimmers reported sleeping for less than six hours per day, indicating a considerable prevalence of inadequate sleep. A very high proportion (**90.50%**) reported regular **use of social media**, suggesting widespread digital engagement among swimmers.

Regarding health-risk behaviors, only **9.11%** of swimmers reported **smoking or alcohol consumption**, indicating a relatively low prevalence of these habits. In terms of psychological well-being, **18.90%** of swimmers experienced **feelings of worthlessness**, while **24.00%** reported **feelings of irritability**, highlighting notable emotional and mental health concerns within the group. Additionally, **6.10%** of swimmers reported a **family history of psychological problems**, suggesting limited but relevant hereditary or environmental mental health risk factors.

The Demographic information of Swimmers have been presented graphically in figure-I

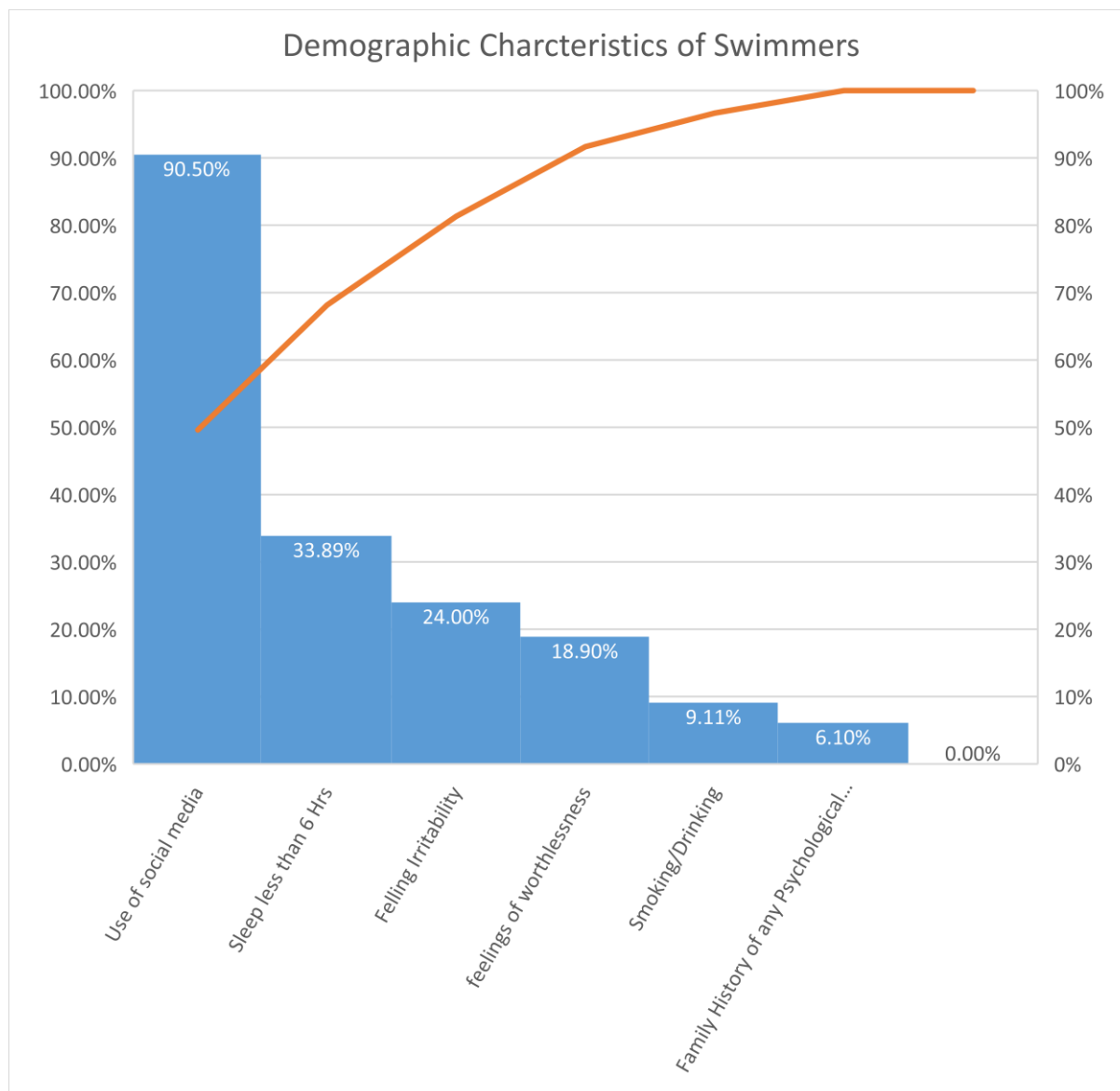


TABLE –2.
DEMOGRAPHIC INFORMATION OF NON- SWIMMERS

Sr.No.	Demographic information of Non-Swimmers	Percentage (%)
1	Sleep less than 6 Hrs	38.78%
2	Use of social media	92.00%
3	Smoking/Drinking	12.60%
4.	feelings of worthlessness	22.50%
5	Family History of any Psychological Problem	08.00%
6	Felling Irritability	26.77%

The table illustrates the demographic, lifestyle, and psychological characteristics of non-swimmer participants in percentage terms. It reveals that **38.78%** of non-swimmers reported sleeping for less than six hours per day, indicating a high prevalence of inadequate sleep. An overwhelming **92.00%** of participants reported regular **use of social media**, reflecting extensive digital engagement among non-swimmers.

With respect to health-risk behaviors, **12.60%** of non-swimmers reported **smoking or alcohol consumption**, which is higher compared to physically active groups. Psychological well-being indicators show that **22.50%** of non-swimmers experienced **feelings of worthlessness**, while **26.77%** reported **feelings of irritability**, suggesting a relatively higher level of emotional distress. Furthermore, **8.00%** of participants indicated a **family history of psychological problems**, highlighting potential background risk factors influencing mental health.

Overall, the table suggests that non-swimmers demonstrate higher levels of sleep deprivation, substance use, and negative psychological symptoms. These findings underline the potential mental health benefits of regular physical activity such as swimming and emphasize the need for targeted interventions to improve sleep hygiene and psychological well-being among non-swimmers.

Figure-2 illustrates the demographic, lifestyle, and psychological characteristics of non-swimmer

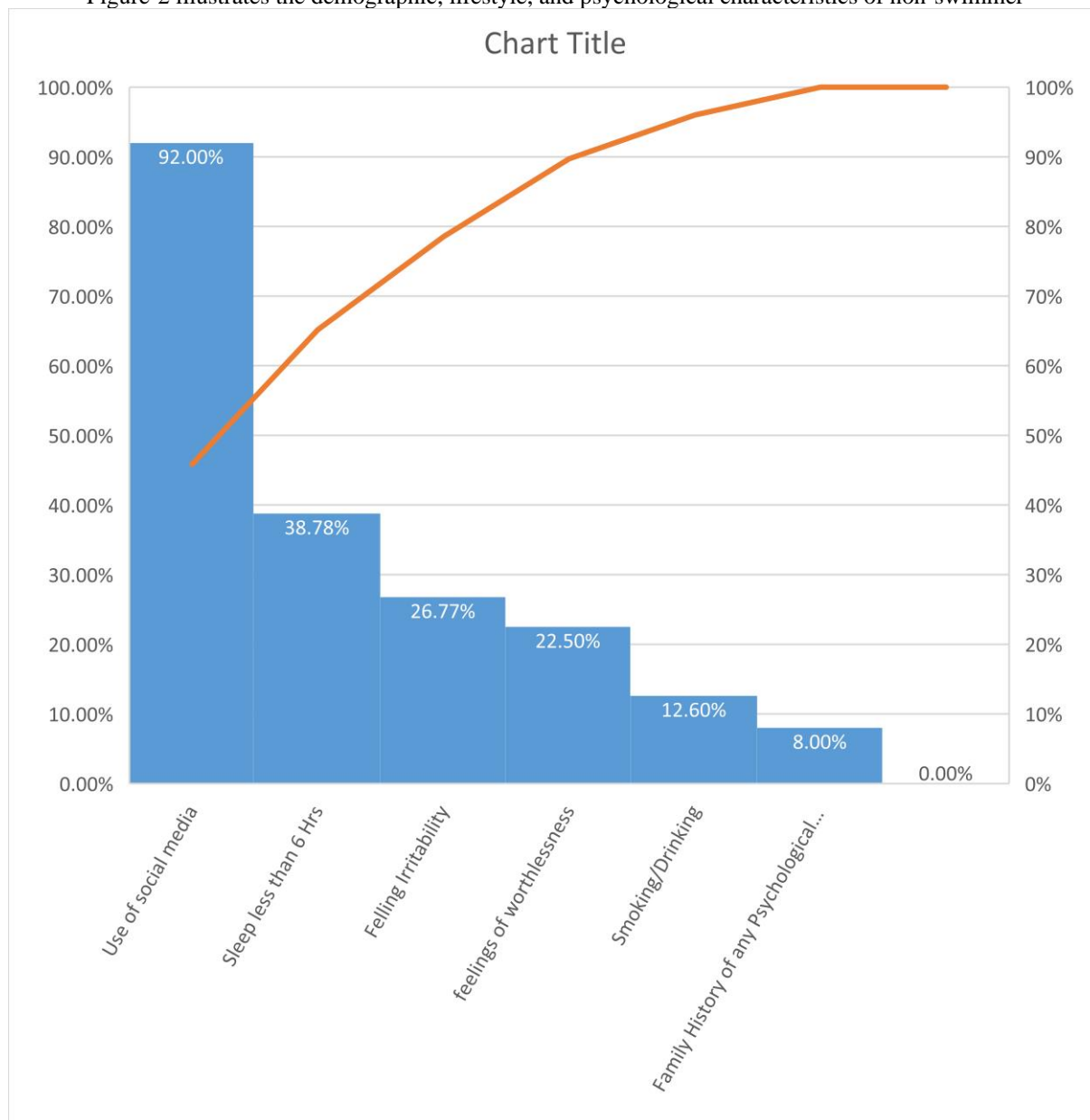


TABLE – 3

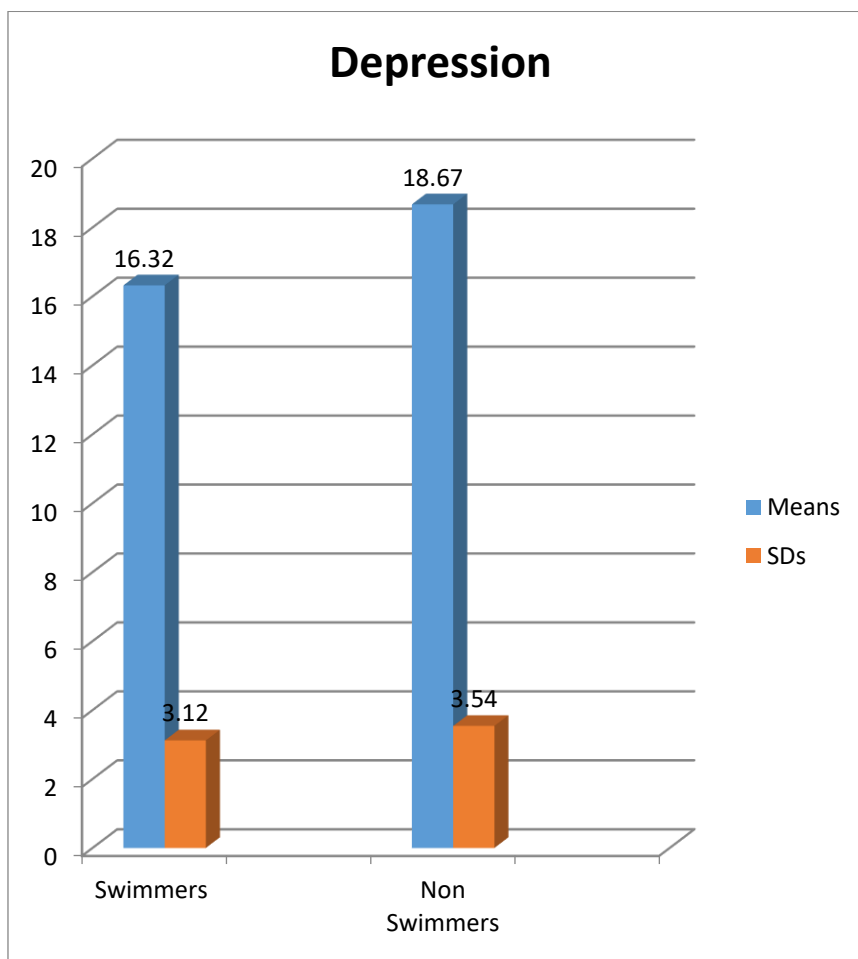
MEAN SCORES , STANDARD DEVIATIONS AND T-RATIOS OF THE PSYCHOLOGICAL PROBLEM WITH RESPECT TO DEPRESSION BETWEEN SWIMMERS AND NON SWIMMERS

Sr. No.	Psychological Problem	Sample	No.	Means	SDs	T-ratios
1.	Depression	Swimmers	69	16.32	3.12	3.25*
		Non Swimmers	116	18.67	3.54	

Table–3 presents the mean scores and standard deviations of psychological problems with respect to depression between swimmers and non-swimmers in the age group of 24–30 years. The mean score (MS) of psychological problems related to depression for swimmers (SWM) aged 24–30 years was **16.32**, whereas the mean score (MS) for non-swimmers of the same age group was **18.67**. The standard deviation (SD) for swimmers was **3.12**, while the standard deviation (SD) for non-swimmers was **3.54**, respectively.

The results presented in Table–3 reveal that a **significant difference** was found in psychological problems with respect to depression between swimmers and non-swimmers aged 24–30 years ($t = 3.25$, $p < .05$). The findings of the study further indicate that non-swimmers in the age group of 24–30 years exhibited higher levels of psychological problems related to depression compared to their swimmer counterparts.

The mean scores (MS) and standard deviations (SDs) of psychological problems with respect to depression between swimmers and non-swimmers aged 24–30 years are presented graphically in **Figure–70**.



DISCUSSION

The results of the present study demonstrated a statistically significant difference in psychological problems with respect to depression between swimmers and non-swimmers aged 24–30 years. Non-swimmers exhibited higher depression scores compared to swimmers, indicating poorer psychological health. The obtained t-value ($t = 3.25$, $p < .05$) supports the acceptance of the research hypothesis.

These findings are consistent with earlier research highlighting the positive effects of physical activity on mental health. Regular participation in swimming may help reduce depressive symptoms through physiological mechanisms such as improved cardiovascular fitness, enhanced mood regulation, and stress reduction. The rhythmic and meditative nature of swimming likely contributes to emotional stability and psychological resilience.

The findings also align with studies suggesting that exercise serves as an effective adjunct or alternative to medication in managing depression (Kvam et al., 2016, Singh 2020b). Therefore, swimming can be considered a valuable preventive and therapeutic strategy for mental health promotion among young adults.

The Results indicates that while unhealthy substance use is relatively low among swimmers, issues related to sleep deprivation, high social media use, and psychological symptoms such as irritability and feelings of worthlessness are prevalent and may warrant attention in athlete support and mental health interventions.

Overall, the findings suggests that non-swimmers demonstrate higher levels of sleep deprivation, substance use, and negative psychological symptoms. These findings underline the potential mental health benefits of regular physical activity such as swimming and emphasize the need for targeted interventions to improve sleep hygiene and psychological well-being among non-swimmers.

LIMITATIONS OF THE STUDY

1. The study was limited to participants aged 24–30 years, restricting generalization to other age groups.
2. Depression was assessed using a self-report scale, which may involve response bias.
3. Lifestyle variables such as diet, sleep, and occupational stress were not controlled.
4. The study design was cross-sectional, limiting causal interpretation.

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