



# STRESS BETWEEN SWIMMERS AND NON-SWIMMERS IN THE MIDDLE AGE GROUP OF 24–30 YEARS

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**Abstract:** The present study aimed to examine psychological problems with respect to stress among swimmers and non-swimmers in the age group of 24–30 years. A total of 185 participants were selected for the study, including 69 swimmers and 116 non-swimmers. Stress levels were assessed using a standardized psychological stress scale. Descriptive statistics such as mean scores and standard deviations were calculated, and an independent samples t-test was employed to determine the significance of differences between the groups. The results indicated that non-swimmers ( $M = 22.78$ ,  $SD = 4.87$ ) exhibited significantly higher stress levels compared to swimmers ( $M = 19.23$ ,  $SD = 4.32$ ). The obtained t-value ( $t = 3.67$ ) was statistically significant at the 0.05 level. The findings suggest that regular participation in swimming may play an important role in reducing perceived stress among young adults. The study highlights the psychological benefits of swimming and supports the inclusion of physical activity as a strategy for stress management.

**Keywords:** Stress, Psychological Problems, Swimmers, Non-Swimmers, Physical Activity, Mental Health

## INTRODUCTION

Stress is a universal psychological phenomenon that arises from an individual's perception of environmental demands exceeding their adaptive capacity. According to Selye (1976), stress is associated with the perception of threat and is accompanied by anxiety, emotional tension, and difficulty in adjustment. In modern society, young adults experience increasing levels of stress due to academic pressure, career uncertainty, social expectations, and lifestyle changes.

In the field of sports psychology, stress is considered a critical factor influencing mental health and performance. Athletes often experience intense stress during training and competition, which is largely influenced by their level of aspiration and achievement goals (Kumar, 2013; Strandell, 2017, Singh 2020a). Lewin's theory of aspiration suggests that success typically leads to an increase in aspiration level, whereas failure results in a decrease; a mismatch between aspiration and achievement can lead to frustration and psychological strain (Lewin, 1951; Buckley, 2018, Singh 2020b). Such discrepancies may cause emotional discomfort, frustration, or deprivation (Kaplánová & Gregor, 2019b).

Physical activity has been widely recognized as an effective strategy for managing stress. Participation in regular exercise promotes physiological relaxation, improves mood, and enhances psychological resilience. Swimming, in particular, is known for its calming effects due to rhythmic breathing, repetitive movement, and reduced gravitational stress on the body. Research on leisure-time physical activity indicates that individuals who increase their physical activity engagement report lower levels of perceived stress.

Despite extensive evidence supporting the mental health benefits of physical activity, limited studies have compared stress levels specifically between swimmers and non-swimmers within the same age group. Therefore, the present study was undertaken to investigate psychological problems with respect to stress among swimmers and non-swimmers aged 24–30 years.

## METHODS

### Participants

The sample consisted of 185 participants aged between 24 and 30 years. Of these, 69 participants were swimmers (SWM) and 116 participants were non-swimmers (NSWM). Participants were selected using a purposive sampling technique.



### Research Design

The study employed a descriptive comparative research design to examine differences in stress levels between the two groups.

### Tool

Psychological stress was assessed using a standardized psychological stress scale with established reliability and validity. The scale measured perceived stress through structured items scored according to prescribed guidelines.

### Procedure

Participants were informed about the purpose of the study, and informed consent was obtained. The questionnaire was administered under standardized conditions, and confidentiality of responses was assured. All completed questionnaires were scored according to the manual.

### Statistical Analysis

Mean scores and standard deviations were calculated to describe stress levels among swimmers and non-swimmers. An independent samples t-test was used to determine whether a significant difference existed between the two groups. The level of significance was set at 0.05.

Table: 1, Rate of stress between of Swimmers and Non Swimmers .

Sr. No.	Overall levels of stress	Comparison	
		<i>Swimmers</i>	<i>Non-swimmers</i>
1.	Mild	45.66%	52.60%
2.	Moderate	27.60%	32.30%
3.	Severe	19.30%	16.50%

The table presents a comparative distribution of overall stress levels among swimmers and non-swimmers, categorized into mild, moderate, and severe stress and expressed in percentages. Among swimmers, 45.66% reported mild stress, indicating that nearly half of the swimmers experienced low levels of stress. In comparison, a slightly higher proportion of 52.60% of non-swimmers fell under the mild stress category.

With respect to moderate stress, 27.60% of swimmers reported experiencing moderate levels of stress, whereas a higher percentage of 32.30% was observed among non-swimmers. This suggests that moderate stress is more prevalent among individuals who do not engage in swimming.

Regarding severe stress, 19.30% of swimmers reported severe stress levels, compared to 16.50% of non-swimmers. Although the proportion of severe stress appears marginally higher among swimmers, the overall distribution indicates that non-swimmers tend to experience greater stress at mild and moderate levels.

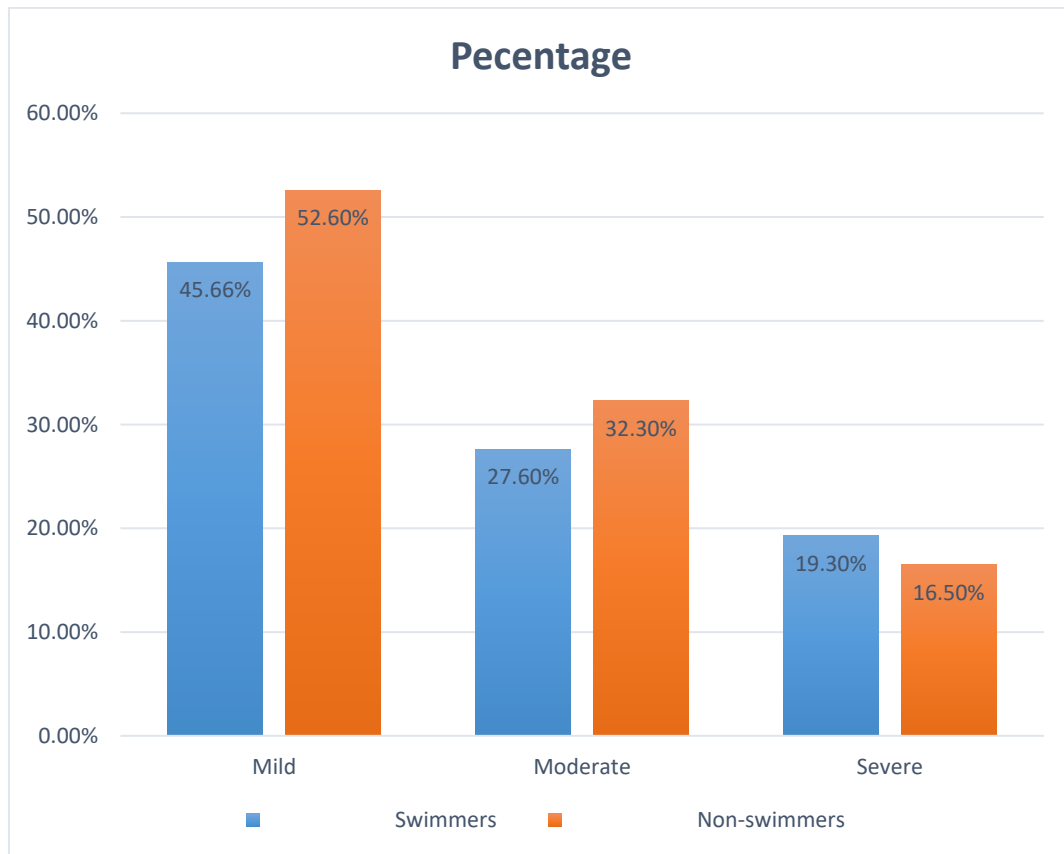


TABLE – 2

MEAN SCORES AND STANDARD DEVIATIONS AND T-RATIO OF THE PSYCHOLOGICAL PROBLEM WITH RESPECT TO STRESS BETWEEN SWIMMERS AND NON SWIMMERS

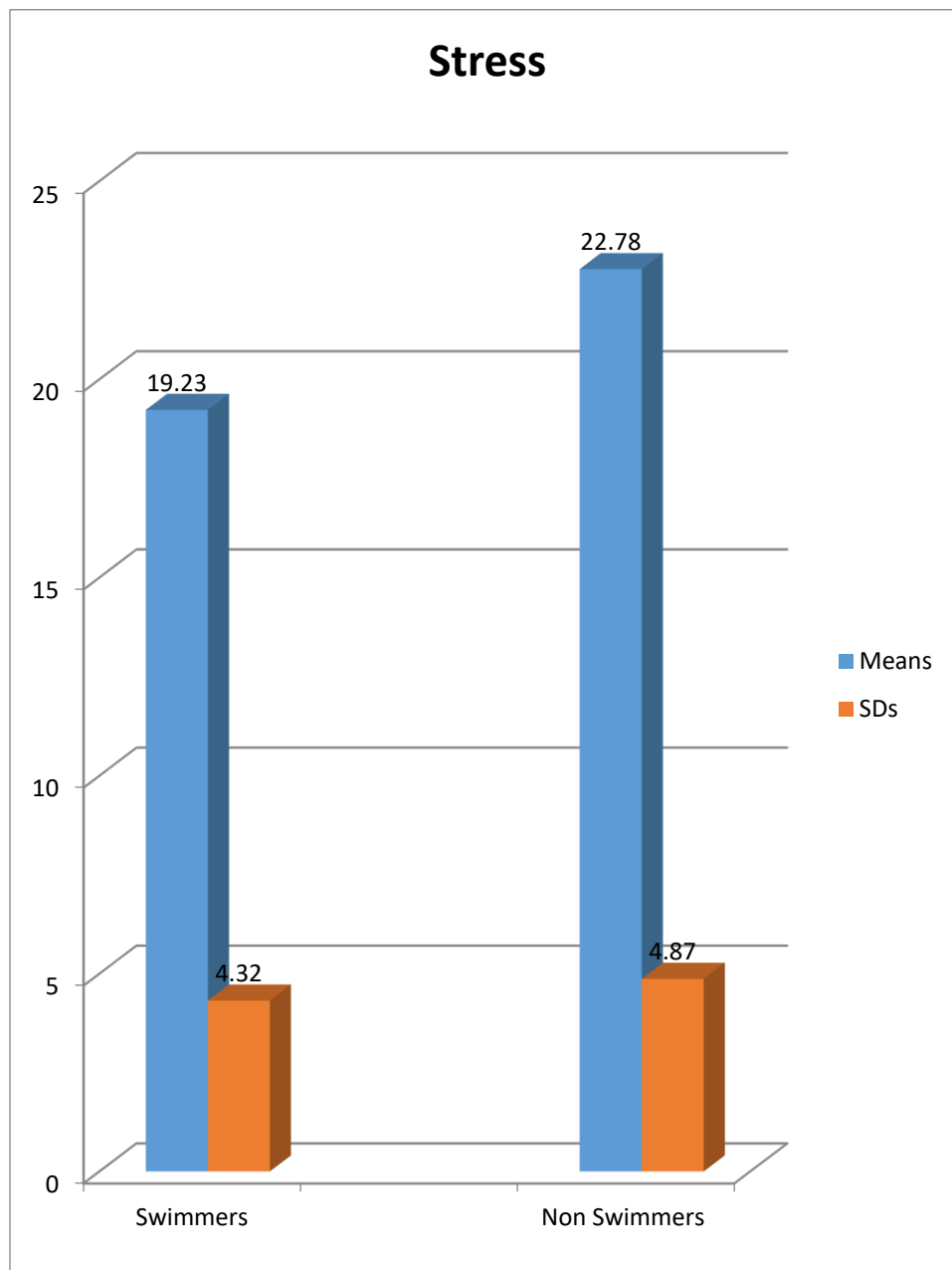
Sr. No.	Psychological Problem	Sample	No.	Means	SDs	T-ratio
1.	Stress	Swimmers	69	19.23	4.32	2.67*
		Non Swimmers	116	22.78	4.87	

Table -72 shows the Mean scores and Standard deviations of Psychological problem with respect to Stress between Aged group (24-30) Swimmers and Aged group (24-30) Non-Swimmers. The mean scores (MS) of Psychological problem with respect to Stress of Aged group (24-30) Swimmers (SWM) were obtained 19.23 and the mean scores (MS) of Psychological problem with respect to Stress of Aged group (24-30) Non-Swimmers were obtained 22.78 respectively. The Standard Deviations (SDs) of Psychological problem with respect to Stress of Aged group (24-30) Swimmers (SWM) were obtained 4.32 and the Standard Deviations (SDs) of Psychological problem with respect to Stress of Aged group (24-30) Non-Swimmers were obtained 4.87 respectively. The result given in Table 72 reveals that significant difference of Psychological problem with respect to Stress was found ( $t = 3.67$   $P < .05$ ) between Aged group (24-30) Swimmers and Aged group (24-30) Non-Swimmers. The findings of the study indicate that, Aged group (24-30) Non-Swimmers were found to have got more Psychological problem with respect to Stress compared to their counterparts Aged group (24-30) Swimmers (SWM).

The Mean scores (MS) and Standard deviations (SDs) Psychological problem with respect to Stress between Aged group (24-30) Swimmers and Non-Swimmers has been presented graphically in figure- 72



Figure : 72 The Mean scores (MS) and Standard deviations (SDs) Psychological problem with respect to Stress between Aged group (24-30) Swimmers and Non-Swimmers



## DISCUSSION

The findings of the present study revealed a significant difference in psychological problems with respect to stress between swimmers and non-swimmers in the age group of 24–30 years. Non-swimmers were found to exhibit significantly higher stress levels compared to swimmers, supporting the research hypothesis.

These findings are consistent with earlier studies suggesting that participation in physical activity plays a crucial role in stress reduction. Swimming, in particular, offers unique psychological benefits due to its rhythmic breathing patterns, repetitive movements, and calming aquatic environment. These characteristics help activate relaxation responses in the nervous system, thereby reducing perceived stress.



The results also align with stress theories proposed by Selye (1976) and Singh, (2019), Singh (2020) which emphasize the role of perception and coping in stress experience. Regular engagement in swimming may enhance coping mechanisms and emotional regulation, enabling individuals to manage stress more effectively. Furthermore, the reduced stress levels observed among swimmers may also be attributed to improved self-esteem, mood enhancement, and a sense of achievement gained through physical activity participation.

Based on the results, the hypothesis stating that there would be a significant difference between the psychological problems of swimmers and non-swimmers with respect to stress was accepted.

Overall, the results suggests that **non-swimmers exhibit higher proportions of mild and moderate stress**, while **swimmers demonstrate comparatively better stress management**, likely due to the stress-reducing benefits of regular physical activity such as swimming. These findings highlight the potential role of swimming as an effective intervention for stress regulation and psychological well-being.

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