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THE EFFECT OF RECREATIONAL SWIMMING SPORT ON WELL-BEING

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ABSTRACT

Individuals engage in recreational activities to cope with the negative aspects of urban life for various reasons, such as rejuvenation, developing positive emotions and social relationship skills, and maintaining their physical and mental health. Therefore, this study examined whether the well-being levels of adult swimmers differed according to various demographic variables. Utilizing a cross-sectional design, data were collected from 620 active members of municipal swimming pools in Ankara, Türkiye, using the "Recreational Sport Well-Being Scale (RSWBS)." The results indicated that recreational sports well-being was significantly affected by various sociodemographic factors, including age, profession, income level, private vehicle ownership, education, participation in other sports, and self-perceived health ($p < 0.05$). Conversely, no statistically significant differences were found based on gender or marital status ($p > 0.05$). Consequently, while recreational swimming is broadly beneficial, its positive impact on well-being is shaped by socioeconomic status, access to facilities, and educational attainment.

KEYWORDS: Recreation, Recreational Sport, Swimming, Well-Being.

1. INTRODUCTION

In the literature, recreation is not merely defined as the passive use of leisure time but rather as activities involving physical, mental, social, or emotional participation, carried out individually or collectively, with the desire to achieve personal satisfaction (McLean, Hurd, & Rogers, 2007). Recreation is considered a component of leisure activities and encompasses actions that individuals engage in outside work, family, and basic needs based on their own choices and intrinsic motivation (Karaküçük, 2014). Awareness of what recreation means to individuals and the benefits they derive from such activities constitutes "recreational awareness," which is essential for maximizing participation and obtaining the greatest benefit from leisure activities (Demirel et al., 2021).

Recreational sports serve as a multifaceted tool that enhances individuals' psychological, social, and cognitive development, thereby contributing to a more meaningful life and strengthening social bonds. These activities not only support psychological well-being, such as stress management and emotional resilience, but also foster social interactions, reinforce the sense of belonging, and enhance overall productivity (Martín-Rodríguez et al., 2024).

The concept of well-being can be understood as a combination of various elements that, although limited in scope individually, contribute to a positive state of life satisfaction (Diener, 1984). Previous research has demonstrated a strong relationship between leisure behavior and well-being in adults (Ryu & Heo, 2018).

In this context, the primary aim of the present study was to examine the recreational well-being of individuals participating in swimming activities offered for public use in municipal sports centers.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1. *Recreational Swimming Sport*

Recreational sports constitute a significant category of leisure activities, offering a means to distance oneself from the stressors of modern life and fulfill one's individual needs. The literature frequently references the positive effects of these activities on the well-being of individuals.

Recreational swimming, in particular, is highlighted as a holistic health behavior due to its psychosocial contributions, in addition to its role in promoting physiological adaptation.

Various studies have indicated that recreational swimming enhances cardiovascular capacity, reduces the risk of chronic diseases, and improves quality of life (Yfanti et al., 2014). Regular swimming practices have been reported to strengthen endurance, flexibility, and physiological functions, thereby increasing physical well-being (Sumartana & Setiaji, 2025). Another significant finding in the literature is that recreational participation has a meaningful impact not only on physiological aspects but also on the satisfaction of psychological needs and life satisfaction (Chatzisarantis & Hagger, 2007).

In the psychological dimension, recreational swimming has been identified as having a stress-reducing function that supports mental equilibrium and enhances positive affective. Open-water swimming experiences are suggested to foster a sense of renewal, thereby increasing subjective well-being and promoting psychological restoration through interaction with nature (Dawe, Ruiz & Devonport, 2025; McDougall, Foley, Hanley & Quilliam, 2022). Furthermore, there is evidence to suggest that recreational swimming programs for female participants strengthen psychological need satisfaction and increase life satisfaction (Amini & Eskandarnejad, 2016).

In the social context, recreational swimming strengthens the sense of belonging among individuals, reinforces social relationships, and enhances spatial connections to nature. Thus, it generates significant effects that extend beyond individual benefits to contribute to societal well-being (Lloret, Gómez, Rocher & Carreño, 2023). Therefore, recreational swimming can be conceptualized not merely as a sporting activity but as a holistic life practice that supports biopsychosocial well-being at both the individual and societal levels.

2.2. *Blue Exercise and Well-Being*

The conceptual framework for understanding the impact of recreational swimming on well-being can be explored through several interconnected themes, including: recreational swimming, being a form of "blue exercise," involves physical activity undertaken in natural

water environments, such as pools, lakes, or the sea, which has specific implications for both mental and physical health.

Mental Well-Being: Engaging in swimming within blue spaces offers significant mental health benefits, including mood enhancement and the alleviation of symptoms associated with mental distress. Activities conducted in such environments promote mindfulness, reduce anxiety, and elevate mood, which can be attributed to the unique characteristics of water-based activities, such as the rhythmic nature of swimming strokes and the calming properties of water (Overbury et al., 2023; Thompson and Wilkie, 2020). Immersion in water allows individuals to detach from daily stressors and experience a form of escapism, often resulting in enhanced relaxation and mental clarity (Doyle et al., 2019). *Physical Well-Being:* Swimming, as a low-impact exercise, is accessible to a diverse range of individuals, including those with physical limitations, and promotes cardiovascular health and overall physical fitness. It is frequently regarded as an enjoyable and engaging method for maintaining an active lifestyle, making it less daunting than other more strenuous forms of exercise (Tanaka, 2009; Dupuis and Smale, 1995). *Social Aspects:* Recreational swimming also facilitates social interactions, whether through community swim clubs or informal group swims, contributing to a sense of belonging and communal well-being. Participation in group activities enhances enjoyment and fun, which are essential for sustained engagement and overall mental well-being (Loureiro & Veloso, 2016; Street et al., 2007). *Intrinsic Enjoyment:* The intrinsic enjoyment derived from recreational swimming often surpasses the health benefits, as the experience itself can significantly enhance an individual's quality of life. This aligns with the broader concept of active leisure, wherein activities may not necessarily conform to traditional health guidelines but are perceived as recreational and enjoyable, thereby contributing substantially to an individual's well-being (Downward and Dawson, 2015). In conclusion, recreational swimming positively influences well-being through the integration of physical benefits, mental clarity, social engagement, and intrinsic enjoyment. By promoting this multifaceted approach to health, individuals who participate in recreational

swimming can attain a more holistic sense of well-being (Overbury et al., 2023; Garrett et al., 2023; Thompson and Wilkie, 2020).

2.3. Research Hypotheses

This study examined whether the well-being levels of individuals participating in recreational swimming differed according to various demographic variables. Accordingly, the main hypotheses are as follows:

H1: There is a significant difference in the recreational swimming sport well-being levels of participants based on gender.

H2: There is a significant difference in the recreational swimming sport well-being levels of participants based on their marital status.

H3: There is a significant difference in the recreational swimming sport well-being levels of participants based on age group.

H4: There is a significant difference in the recreational swimming sport well-being levels of participants based on their education.

H5: There is a significant difference in the recreational swimming sport well-being levels of participants based on their professional group.

H6: There is a significant difference in the recreational swimming sport well-being levels of participants based on their household income.

H7: There is a significant difference in the recreational swimming sport well-being levels of participants based on their private vehicle ownership.

H8: There is a significant difference in the recreational swimming sport well-being levels of participants based on their participation in other recreational activities, besides swimming.

H9: There is a significant difference in the recreational swimming sport well-being levels of participants based on their self-perceived health status.

3. METHODOLOGY

3.1. Participants and Procedures

The population of this study comprised 2310 active members from five sports centers with swimming pools operated by the Keçiören Municipality in Ankara, Türkiye. Data were collected from 620 participants using convenience sampling. Data were obtained using a survey technique.

Table 1: Demographic Information of Participants.

	Variable	Frequency	%
Gender	a. Female	338	54.5
	b. Male	282	45.5
Age	a. 18-23	54	8.7
	b. 24-29	111	17.9
	c. 30-35	123	19.8
	d. 36-41	126	20.3
	e. 42-47	104	16.8
	f. 48 and over	102	16.5
Marital Status	a. Married with children	268	43.2
	b. Married without children	93	15.0
	c. Single with children	49	7.9
	d. Single without children	210	33.9
Education Level	a. Primary	28	4.5
	b. Secondary	64	10.3
	c. High School	166	26.8
	d. University	280	45.2
	e. Postgraduate	82	13.2
Profession	a. Public	156	25.2
	b. Private	69	11.1
	c. Self-employed	268	43.2
	d. Housewife	81	13.1
	e. Retired	46	7.4
Household Income	a. 8500₺ - 15000₺	112	18.1
	b. 15001₺ - 30000₺	277	44.7
	c. 30001₺ - 45000₺	141	22.7
	d. 45001₺ - 60000₺	74	11.9
	e. 60001₺ and over	16	2.6
Private Vehicle	a. Yes	438	70.6
	b. No	182	29.4
Other Sport Activity	a. Does not participate	296	47.7
	b. Team Sport	36	5.8
	c. Individual Sport	179	28.9
	d. Studio Class	109	17.6
Health Status	a. Fair	61	9.8
	b. Good	317	51.1
	c. Very Good	242	39.1
TOTAL		620	100
₺:Turkish lira			

Table 1 presents the demographic profile of the 620 participants, revealing that 54.5% are female and 45.5% are male, with the predominant age group falling between 30 and 41 years. Regarding socioeconomic status, the majority of the sample consists of individuals who are married (58.2%), university graduates (45.2%), and self-employed (43.2%), while nearly half of the participants (44.7%) report a monthly household income between 15,001₺ and 30,000₺. Furthermore, while 70.6% of the participants own a private vehicle, 47.7% do not engage in any regular sporting activities; nevertheless, a significant majority (90.2%) perceive their overall health status as either "Good" or "Very Good."

3.2. Measurement

The data collection instrument used in this study consisted of two sections. The first section was a "Personal Information Form" prepared by the researchers, while the second section employed the "Recreational Sport Well-Being Scale (RSWBS),"

originally developed by Pi, Chang, & Lin (2022) and adapted into Turkish by Koç (2022). The RSWBS is designed to measure the level of well-being derived from recreational sports. The scale consists of 14 items across four sub-dimensions: Physical and Mental Health, Life Satisfaction, Family Relationship Development, and Positive Emotion. The instrument is a five-point Likert-type scale, ranging from (1) "Strongly Disagree" to (5) "Strongly Agree."

3.3. Preliminary Analysis

The data obtained from the study were analyzed using the IBM SPSS (version 24.0) statistical package. Initially, a normality test was conducted to determine the distribution of the data, which revealed that the data were not normally distributed. To assess the reliability of the "Recreational Sport Well-Being Scale," an analysis was performed, and the Cronbach's alpha coefficient for the scale was calculated to be 0.96.

3.4. Statistical Analysis

Owing to the non-normal distribution of the data, non-parametric tests were employed to analyze the differences between groups based on demographic variables. The Mann-Whitney U test was applied to identify differences between two independent groups (e.g., gender and private vehicle ownership). The Kruskal-Wallis H test was used to analyze differences among more than two independent groups (e.g., age,

education level, profession, income level, and health status). When a statistically significant difference was found with the Kruskal-Wallis H test, the Mann-Whitney U test was used for pairwise comparisons to determine which specific groups differed from each other. For all statistical analyses, the level of significance was set at $p < 0.05$.

4. FINDINGS

Table 2: Analysis of Differences in Participants' Scale Scores by Gender

	Gender	n	Mean Rank	U	p
RSWBS	Female	338	318.33	45012.5	0.231
	Male	282	301.12		
Physical and Mental Health	Female	338	321.81	43836.5	0.081
	Male	282	296.95		
Life Satisfaction	Female	338	317.66	45239.5	0.251
	Male	282	301.92		
Family Relationship Enhancement	Female	338	313.16	46760.5	0.668
	Male	282	307.32		
Positive Emotion	Female	338	315.17	46080.0	0.445
	Male	282	304.90		

* $p < 0.05$

As seen in Table 2, the Mann-Whitney U test was conducted to determine whether the participants' scores on the scales differed by gender. According to the results, no statistically significant difference was

found at the 95% confidence level between the "Recreational Sport Well-Being Scale (RSWBS)" and its sub-dimensions based on gender ($p > 0.05$).

Table 3: Analysis of Differences in Participants' Scores by Age Group

	Age Group	n	Mean Rank	H	df	p	Post-Hoc (U-test)
RSWBS	18-23 ⁽¹⁾	54	289.29	9.493	5	0.091	-
	24-29 ⁽²⁾	111	310.25				
	30-35 ⁽³⁾	123	329.61				
	36-41 ⁽⁴⁾	126	326.36				
	42-47 ⁽⁵⁾	104	321.96				
	48 and over ⁽⁶⁾	102	267.69				
Physical and Mental Health	18-23 ⁽¹⁾	54	296.17	12.531	5	0.028*	2-3 3-6 4-6
	24-29 ⁽²⁾	111	292.26				
	30-35 ⁽³⁾	123	341.03				
	36-41 ⁽⁴⁾	126	331.21				
	42-47 ⁽⁵⁾	104	316.22				
	48 and over ⁽⁶⁾	102	269.72				
Life Satisfaction	18-23 ⁽¹⁾	54	306.96	7.905	5	0.162	-
	24-29 ⁽²⁾	111	317.14				
	30-35 ⁽³⁾	123	334.13				
	36-41 ⁽⁴⁾	126	315.71				
	42-47 ⁽⁵⁾	104	308.58				
	48 and over ⁽⁶⁾	102	272.18				
Family Relationship Enhancement	18-23 ⁽¹⁾	54	277.58	4.153	5	0.528	-
	24-29 ⁽²⁾	111	317.88				
	30-35 ⁽³⁾	123	320.86				
	36-41 ⁽⁴⁾	126	313.46				
	42-47 ⁽⁵⁾	104	320.51				
	48 and over ⁽⁶⁾	102	293.53				
Positive Emotion	18-23 ⁽¹⁾	54	309.05	9.439	5	0.093	-
	24-29 ⁽²⁾	111	323.95				
	30-35 ⁽³⁾	123	310.94				
	36-41 ⁽⁴⁾	126	326.13				
	42-47 ⁽⁵⁾	104	320.85				
	48 and over ⁽⁶⁾	102	266.24				

* $p < 0.05$

As seen in Table 3, the Kruskal-Wallis H test was conducted to determine if there was a significant difference in the mean scores of the Physical and Mental Health sub-dimension of the RSWBS according to age. The difference between the mean ranks of the age groups was statistically significant

($H=12.531$; $df=5$; $p=0.028$, $p<0.05$). Subsequently, the Mann-Whitney U test, which is preferred for pairwise comparisons, was applied. The results of the analysis indicated that the difference was in favor of the 30-35 age group.

Table 4: Analysis of Differences in Participants' Scores by Marital Status

	Marital Status	n	Mean Rank	H	p
RSWBS	Married w/ children	268	312.77	2.357	0.502
	Married w/o children	93	291.56		
	Single w/ children	49	290.89		
	Single w/o children	210	320.57		
Physical and Mental Health	Married w/ children	268	307.68	3.175	0.365
	Married w/o children	93	319.03		
	Single w/ children	49	271.80		
	Single w/o children	210	319.35		
Life Satisfaction	Married w/ children	268	314.85	2.243	0.523
	Married w/o children	93	297.47		
	Single w/ children	49	283.76		
	Single w/o children	210	316.96		
Family Relationship Enhancement	Married w/ children	268	310.71	103	0.103
	Married w/o children	93	272.97		
	Single w/ children	49	323.89		
	Single w/o children	210	323.73		
Positive Emotion	Married w/ children	268	315.23	1.371	0.712
	Married w/o children	93	293.98		
	Single w/ children	49	301.23		
	Single w/o children	210	313.94		

* $p<0.05$

As seen in Table 4, the Mann-Whitney U test (Kruskal-Wallis H test for more than two groups) was conducted to determine whether participants' scale scores differed according to their marital status. The

results showed no statistically significant difference at the 95% confidence level for the "Recreational Sport Well-Being Scale (RSWBS)" and its sub-dimensions based on marital status ($p>0.05$).

Table 5: Analysis of Differences in Participants' Scores by Education Group

	Education Level	n	Mean Rank	H	df	p	Post-Hoc (U-test)
RSWBS	Primary(1)	28	240.30	49.429	4	0.000*	1-5, 2-4, 2-5, 3-4, 3-5, 4-5
	Secondary(2)	64	262.36				
	High School(3)	166	255.61				
	University(4)	280	335.97				
	Postgraduate(5)	82	396.18				
Physical and Mental Health	Primary(1)	28	290.23	53.720	4	0.000*	1-5, 2-4, 2-5, 3-4, 3-5, 4-5
	Secondary(2)	64	245.23				
	High School(3)	166	250.67				
	University(4)	280	338.39				
	Postgraduate(5)	82	394.23				
Life Satisfaction	Primary(1)	28	234.14	46.982	4	0.000*	1-5, 2-4, 2-5, 3-4, 3-5, 4-5
	Secondary(2)	64	269.05				
	High School(3)	166	258.79				
	University(4)	280	336.69				
	Postgraduate(5)	82	384.18				
Family Relationship Enhancement	Primary(1)	28	225.45	24.166	4	0.000*	1-5, 2-5, 3-4, 3-5, 4-5
	Secondary(2)	64	286.13				
	High School(3)	166	283.70				
	University(4)	280	323.18				
	Postgraduate(5)	82	369.53				
Positive Emotion	Primary(1)	28	241.73	40.856	4	0.000*	1-5, 2-4, 2-5, 3-4, 3-5
	Secondary(2)	64	266.57				
	High School(3)	166	263.27				
	University(4)	280	337.67				
	Postgraduate(5)	82	371.11				

* $p<0.05$

As indicated in Table 5, the Kruskal-Wallis H test conducted for the RSWBS and all its sub-dimensions revealed a statistically significant difference among education level groups ($p=0.000$, $p<0.05$). The Mann-

Whitney U test was used for pairwise comparisons. The results of the analysis showed that the difference was in favor of the group with a postgraduate education.

Table 6: Analysis of Differences in Participants' Scores by Profession Group

	Profession	n	Mean Rank	H	df	p	Post-Hoc (U-test)
RSWBS	Public ⁽¹⁾	156	368.40	39.440	4	0.000*	1-3, 1-4, 1-5, 2-3, 2-4, 2-5
	Private ⁽²⁾	69	363.42				
	Self-employed ⁽³⁾	268	285.51				
	Housewife ⁽⁴⁾	81	284.46				
	Retired ⁽⁵⁾	46	226.18				
Physical and Mental Health	Public ⁽¹⁾	156	361.05	38.258	4	0.000*	1-3, 1-4, 1-5, 2-3, 2-4, 2-5, 4-5
	Private ⁽²⁾	69	372.41				
	Self-employed ⁽³⁾	268	285.56				
	Housewife ⁽⁴⁾	81	290.96				
	Retired ⁽⁵⁾	46	225.89				
Life Satisfaction	Public ⁽¹⁾	156	359.46	32.488	4	0.000*	1-3, 1-4, 1-5, 2-3, 2-4, 2-5
	Private ⁽²⁾	69	359.27				
	Self-employed ⁽³⁾	268	291.15				
	Housewife ⁽⁴⁾	81	276.60				
	Retired ⁽⁵⁾	46	243.74				
Family Relationship Enhancement	Public ⁽¹⁾	156	354.88	22.416	4	0.000*	1-3, 1-4, 1-5, 2-3, 2-5
	Private ⁽²⁾	69	345.34				
	Self-employed ⁽³⁾	268	288.05				
	Housewife ⁽⁴⁾	81	295.67				
	Retired ⁽⁵⁾	46	264.66				
Positive Emotion	Public ⁽¹⁾	156	361.81	33.519	4	0.000*	1-3, 1-4, 1-5, 2-3, 2-4, 2-5
	Private ⁽²⁾	69	351.79				
	Self-employed ⁽³⁾	268	292.31				
	Housewife ⁽⁴⁾	81	275.40				
	Retired ⁽⁵⁾	46	242.35				

As shown in Table 6, the Kruskal-Wallis H test for the RSWBS and all its sub-dimensions indicated a statistically significant difference among professional groups ($p=0.000$, $p<0.05$). Subsequently, the Mann-Whitney U test was applied for pairwise

comparisons. The analysis revealed that the difference was in favor of the private sector profession group only for the physical and mental health sub-dimension, while for all other groups, it was in favor of the public sector profession group.

Table 7: Analysis of Differences in Participants' Scores by Income Group

	Income Level	n	Mean Rank	H	df	p	Post-Hoc (U-test)
RSWBS	8,500-15,000 ⁽¹⁾	112	263.75	24.890	4	0.000*	1-3, 1-4, 1-5, 2-3, 2-4
	15,001-30,000 ⁽²⁾	277	293.33				
	30,001-45,000 ⁽³⁾	141	344.33				
	45,001-60,000 ⁽⁴⁾	74	368.60				
	60,001 and over ⁽⁵⁾	16	368.09				
Physical and Mental Health	8,500-15,000 ⁽¹⁾	112	278.26	31.174	4	0.000*	1-3, 1-4, 1-5, 2-3, 2-4, 2-5, 3-4
	15,001-30,000 ⁽²⁾	277	282.29				
	30,001-45,000 ⁽³⁾	141	346.50				
	45,001-60,000 ⁽⁴⁾	74	383.30				
	60,001 and over ⁽⁵⁾	16	370.63				
Life Satisfaction	8,500-15,000 ⁽¹⁾	112	269.22	18.944	4	0.001*	1-3, 1-4, 2-3, 2-4
	15,001-30,000 ⁽²⁾	277	297.43				
	30,001-45,000 ⁽³⁾	141	341.09				
	45,001-60,000 ⁽⁴⁾	74	357.86				
	60,001 and over ⁽⁵⁾	16	337.22				
	8,500-15,000 ⁽¹⁾	112	251.83	21.712	4	0.000*	1-2,

Family Relationship Enhancement	15,001-30,000(2)	277	308.28	13.200	4	0.010*	1-3, 1-4, 1-5
	30,001-45,000(3)	141	336.73				
	45,001-60,000(4)	74	347.31				
	60,001 and over(5)	16	358.09				
Positive Emotion	8,500-15,000(1)	112	278.34	13.200	4	0.010*	1-3, 1-4, 2-4
	15,001-30,000(2)	277	300.06				
	30,001-45,000(3)	141	329.55				
	45,001-60,000(4)	74	357.23				
	60,001 and over(5)	16	332.31				

*p<0.05

As seen in Table 7, the Kruskal-Wallis H test conducted for the RSWBS and all its sub-dimensions revealed a statistically significant difference among income levels (p=0.00, p<0.05). Subsequently, the Mann-Whitney U test was applied for pairwise

comparisons. The results showed that the difference was in favor of the 60,001£ and over income level only for the family relationship enhancement sub-dimension, while for all other groups, it was in favor of the 45,001£-60,000£ income level.

Table 8: Analysis of Differences in Participants' Scores by Car Ownership

	Car Ownership	n	Mean Rank	U	p
RSWBS	Yes	438	330.54	31081.5	0.000*
	No	182	262.28		
Physical and Mental Health	Yes	438	322.61	34555.0	0.008*
	No	182	281.36		
Life Satisfaction	Yes	438	329.80	31403.5	0.000*
	No	182	264.05		
Family Relationship Enhancement	Yes	438	333.63	29729.0	0.000*
	No	182	254.85		
Positive Emotion	Yes	438	327.42	32448.5	0.000*
	No	182	269.79		

*p<0.05

As shown in Table 8, the Mann-Whitney U test conducted for the RSWBS and all its sub-dimensions showed a statistically significant difference regarding

private car ownership (p=0.000, p<0.05). The analysis revealed that the difference was in favor of the group that owned private vehicles.

Table 9: Analysis of Differences in Participants' Scores by Other Sport Participation

	Other Sport Activity	n	Mean Rank	H	df	p	Post-Hoc (U-test)
RSWBS	None(1)	296	291.62	13.117	3	0.004*	1-3, 1-4, 2-3, 2-4
	Team Sport(2)	36	263.57				
	Individual Sport(3)	179	325.70				
	Studio Class(4)	109	352.30				
Physical and Mental Health	None(1)	296	298.60	6.776	3	0.079	-
	Team Sport(2)	36	266.54				
	Individual Sport(3)	179	323.89				
	Studio Class(4)	109	335.34				
Life Satisfaction	None(1)	296	296.46	9.711	3	0.021*	1-4, 2-3, 2-4
	Team Sport(2)	36	262.42				
	Individual Sport(3)	179	324.77				
	Studio Class(4)	109	341.08				
Family Relationship Enhancement	None(1)	296	281.75	24.435	3	0.000*	1-3, 1-4, 2-4, 3-4
	Team Sport(2)	36	286.68				
	Individual Sport(3)	179	326.54				
	Studio Class(4)	109	370.09				
Positive Emotion	None(1)	296	300.22	6.744	3	0.081	-
	Team Sport(2)	36	264.96				
	Individual Sport(3)	179	323.48				
	Studio Class(4)	109	332.15				

*p<0.05

As shown in Table 9, the Kruskal-Wallis H test was conducted to determine whether there was a significant difference based on participation in other recreational activities besides swimming. The

results showed no statistically significant difference at the 95% confidence level for the physical and mental health and positive emotion sub-dimensions (p>0.05). However, a statistically

significant difference was found in the mean scores for the RSWBS total score, Life Satisfaction, and Family Relationship Enhancement sub-dimensions

($p < 0.05$). The analysis revealed that the difference favored individuals who participated in studio classes.

Table 10: Analysis of Differences in Participants' Scores by Health Status

	Health Status	n	Mean Rank	H	df	p	Post-Hoc (U-test)
RSWBS	Fair	61	218.47	32.024	2	0.000*	1-2,
	Good	317	295.91				1-3,
	Very Good	242	352.80				2-3
Physical and Mental Health	Fair	61	250.14	19.379	2	0.000*	1-3,
	Good	317	295.03				2-3
	Very Good	242	345.98				
Life Satisfaction	Fair	61	208.45	36.688	2	0.000*	1-2,
	Good	317	299.68				1-3,
	Very Good	242	350.39				2-3
Family Relationship Enhancement	Fair	61	208.95	33.585	2	0.000*	1-2,
	Good	317	302.67				1-3,
	Very Good	242	346.36				2-3
Positive Emotion	Fair	61	247.68	24.488	2	0.000*	1-2,
	Good	317	293.61				1-3,
	Very Good	242	348.45				2-3
* $p < 0.05$							

As shown in Table 10, the Kruskal-Wallis H test conducted for the RSWBS and all its sub-dimensions revealed a statistically significant difference among the health status groups ($p = 0.000$, $p < 0.05$). Following this, the Mann-Whitney U test was used for pairwise comparisons. The results of the analysis indicated that the difference was in favor of the group with a "very good" health status.

5. DISCUSSION

In this study, the effects of recreational swimming on individuals' well-being were examined in the context of different demographic variables, yielding various conclusions. The findings reveal that swimming produces positive outcomes in both physical and psychological dimensions, while also highlighting diverse results among different demographic groups. These results provide important insights into the impact of recreational swimming on well-being, which is shaped by factors such as age, education, profession, and income.

First, the study found that gender and marital status did not significantly affect well-being derived from recreational swimming. This is consistent with the conclusion that participation in swimming and recreational sports is largely independent of personal characteristics such as gender or marital status (Biernat, 2012; Gümüşay, Koç & Turhan, 2023; Yıldız, 2024; Yıldız, 2025). This suggests that swimming is an inclusive leisure activity that provides similar emotional and physical benefits to individuals, regardless of these factors.

Age was a significant factor. Specifically, individuals in the 30–41 age range achieved more positive outcomes in terms of physical and mental health. This finding may be related to the life stages and stressors faced by different age groups of patients. Certain age groups appear to derive greater benefits from recreational sports (Lee & Oh, 2013; Szabo et al., 2019; Çam, 2024; Koç et al., 2024). This suggests that interventions aimed at enhancing the effects of recreational swimming, particularly when designed for middle-aged individuals, could maximize well-being.

Education level was significantly associated with well-being derived from swimming. University graduates reported higher benefits across all subdimensions than participants with lower education levels. This result can be explained by higher cognitive awareness or access to resources that facilitate understanding and utilization of recreational activities (Droomers et al., 2001; Ardahan, 2013; Chen et al., 2017; Kürkcü Akgönül et al., 2023). Therefore, education level stands out as a key variable that strengthens individuals' capacity to improve their mental and physical health by more effectively using recreational activities.

Professional status was also found to influence well-being. Notably, public and private sector employees reported higher levels of well-being than self-employed and retired individuals. This difference may be associated with job stability and advantages that facilitate access to recreational activities for these groups (Çetinkaya et al., 2018;

Mercanoğlu & Şimşek, 2021; Chen et al., 2022; Akbulut & Başkan, 2023). Furthermore, income disparities show that individuals with higher household incomes have more opportunities to participate in recreational activities, indicating that socioeconomic factors are decisive in the benefits obtained from such activities (Smith et al., 2009; Karadağ et al., 2024; Mock et al., 2025). For instance, a study in Denmark found that socioeconomic position significantly differentiated participation in recreational activities, which was strongly linked to subjective health and well-being (Petersen et al., 2021). Similarly, research conducted in Japan has shown that adults with higher household incomes are more active, especially in recreation-based physical activities (Matsushita et al., 2015).

In addition, private vehicle ownership has a significant positive effect on recreational well-being. The fact that car owners scored higher in all well-being dimensions underscores the importance of transportation in accessing recreational facilities. A study in China showed that car ownership and transport conditions have a direct impact on subjective well-being. While car owners report higher life satisfaction, long commute times have a negative effect (Gan et al., 2018). Another study emphasized that private vehicle ownership is associated with positive effects on health, leisure satisfaction, and overall quality of life (Mouratidis, 2025). However, a lack of a vehicle has been shown to create opportunity inequalities (Morris, Blumenberg, & Guerra, 2020). Therefore, improving public transport options or implementing community-based swimming programs for individuals without vehicles would support well-being.

In this study, participation in studio classes and individual sports was associated with higher recreational well-being than non-participation in any sport or participation in team sports. This suggests that the personal and psychological benefits of individual or structured sports may be more effective than those of collective sports (Szabo et al., 2019; Reardon & Hitchcock, 2024). A study comparing the effects of yoga, dance, and team and individual sports found that individual/studio-based activities have particularly strong effects on mental health and well-being (Marschin & Herbert, 2021).

Finally, a strong relationship was found between individuals' self-health assessments and well-being derived from swimming. Participants who rated their health as "very good" achieved significantly higher scores in all dimensions. This finding suggests that subjective health perception may play a significant role in maximizing the benefits obtained from

recreational activities. A study of older adults also found that activities such as walking, swimming, and yoga significantly increased subjective well-being, with this effect being stronger in individuals who rated themselves as "healthy" (Bae & Kang, 2022). Furthermore, it has been emphasized that water-based recreational activities, including swimming, enhance participants' perceived levels of well-being (Heckel et al., 2025).

In conclusion, although recreational swimming contributes universally to well-being, the degree of this contribution varies depending on socioeconomic status, educational level, and individual factors. These findings necessitate the development of tailored strategies that consider these variables to promote equitable recreational access and improve the overall health of the community.

5.1. Practical Implications

This study demonstrates that recreational swimming is a powerful tool for supporting the physical and psychological well-being of individuals. The findings suggest that developing tailored swimming programs for different age, education, and income groups can contribute to improving public health. Additionally, improving transportation and access facilities will reduce opportunity inequalities, especially for individuals without private vehicles, thereby facilitating their participation in recreational sports.

5.2. Theoretical Implications

The results indicate that the effects of recreational sports on well-being are shaped not only by individual characteristics but also by socioeconomic and environmental factors. Differentiating the benefits of recreational swimming based on education level, profession, income, and transportation options offers new contributions to theoretical discussions on the multidimensional nature of well-being. Furthermore, the finding that subjective health perception enhances the benefits of swimming participation provides significant support for psychological well-being models.

6. LIMITATIONS AND FUTURE RESEARCH

As this research was based on a cross-sectional design, causality in the relationship between recreational swimming and well-being cannot be clearly established. The collection of data through self-reporting also creates a risk of bias in the study. Future studies should incorporate longitudinal and experimental research designs, conduct comparisons in different cultural contexts, and examine participants' experiences in depth using qualitative

methods. Moreover, a comparative analysis of the effects of different types of recreational sports (e.g., dance, yoga, running, and team sports) on well-being will yield more comprehensive theoretical and practical results.

Ethical Approval

This study was approved by the Ethics Committee of Hitit University Non-Interventional Research (Date: July 3, 2023; Decision No: 2023/09). All procedures performed in this study involving human

participants were in accordance with the ethical standards of the Department of Psychology at the University of Hong Kong and the ethical principles of the 1964 Declaration of Helsinki.

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