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GENDER AND AGE DIFFERENCES IN SOCIAL FEAR AMONG YOUNG SWIMMERS 5-8 YEARS

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ABSTRACT

This study examined social Fear levels among 72 children (54.17% males) aged 5-8 years enrolled in structured swimming programs at Al-Wefaq Sports Club, analyzing gender and age-based differences. Mann-Whitney U tests revealed no significant gender differences (U = 599, p = 0.613), while Kruskal-Wallis tests showed no age group differences (H = 0.191, p = 0.984). Mean ranks were comparable across males (37.64), females (35.15), and age groups (5yo: 38.13; 6yo: 35.41; 7yo: 37.31; 8yo: 35.98). Findings suggest exploring environmental/psychological factors using mixed-methods, conducting longitudinal studies to track developmental trajectories, and comparing swimmers versus non-swimmers to isolate sport-specific effects.

Key words: social Fear, childhood, swimming programs, gender, age groups

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INTRODUCTION

In general, mental health varies among individuals based on age, marital status, intellectual maturity, and their social and living environment (Barch et al., 2021; Okafor et al., 2025). Once an individual has passed the stage of adolescence and is psychologically sound, mental health often begins to stabilize, as the life trajectory shifts toward career, work, family formation, and similar long-term pursuits. A study by Matić, I. & Musil, V. on physically healthy adolescents found that subjective well-being and self-perceived health particularly mental health showed a notable degree of stability across a two-year period of late adolescence, with baseline well-being being the strongest predictor of later wellbeing (Matić & Musil, 2023). Similarly, Moore et al. (2019)'s study, demonstrated that the 'Complete Mental Health' category is the most stable throughout the secondary school years (Moore et al., 2019).

In childhood, good mental health is reflected in the timely achievement of developmental milestones, healthy social and emotional development, effective regulatory and coping skills, and the ability to function well at home, at school, and in the community (Bitsko et al., 2022). Furthermore, a reference defines child mental health from a developmental-clinical perspective as the complete well-being and optimal development of a child in the emotional, behavioral, social, and cognitive domains, reflected in high levels of personal and social adjustment (Abdullah & Samman, 2020).

Conversely, a child's mental health tends to vary depending on their level of physical activity, including participation in sports such as football, motor games, or swimming. In school-age children, swimming proficiency is commonly defined as the ability to enter deep water, swim at least 200 meters (including a minimum of 50 meters using a backstroke technique), and demonstrate basic aquatic skills such as safe water entry, floating, and water exit (Haga et al., 2025). Another study has shown that structured swimming programs can improve children's psychological stability, with participants of both sexes showing significantly better mental health scores and lower levels of depression, anxiety, stress, and hyperactivity than non-swimmers (Silva et al., 2020). Social circumstances and the daily experiences children face, whether at home, at school, or in their community, can negatively influence their mental health. In some cases, this may lead to social phobia, a condition characterized by a persistent and intense fear of being negatively evaluated or scrutinized by others (Chadaga et al., 2024). Specifically, regarding social phobia in children, persistent fear of one or more social or performance situations is indicated, in which a person is exposed to unfamiliar people or to possible scrutiny by others (Castaños-Cervantes et al., 2020). This study, carried out by a team of academic professors and children's swimming coaches, conducts a comparative analysis of social phobia among children aged 5–8 years in a swimming program, examining the effects of gender and age to identify any significant differences between groups.

METHOD

Participants:

The study sample consisted of all children practicing swimming at the Al Wefaq Sports Club in Ain Azel city. A total of 72 participants were included, comprising 39 males (54.17%) and 33 females (45.83%), as detailed in Table 1. Regarding their athletic profile, all participants were classified at the beginner level. Their weekly training program consisted of two sessions per week, with each session lasting 60 minutes. The participants had an average swimming experience of one year. The study was conducted following ethical approval from the University of Setif 2, ensuring informed parental consent and child assent.

Table 1. Shows the characteristics of the sample according to gender and age categories.

Gender	Males	39	54.17 %
	Females	33	45.83 %
Age	5 years	12	16.67 %
	6 years	17	23.61 %
	7 years	16	22.22 %
	8 years	27	37.50 %

Instruments:

To measure social fear among the study sample of young children, pre-existing adult scales were not applied verbatim due to the significant differences in cognitive and developmental capacities. Instead, standard scale development procedures were adopted. The *Social Fear Scale* by Raulin & Wee (1984) was utilized as a theoretical foundation and an initial "Item Pool". The items from the original scale were reviewed by a panel of experts in developmental psychology to select statements appropriate for the target age group (5–8 years old) and the local cultural context. Consequently, several items deemed cognitively or linguistically inappropriate for young children were excluded, resulting in a newly adapted scale comprising 32 items rather than the original 36. Furthermore, to ensure the children's comprehension, the administration method was altered. The adapted scale was administered as a Structured Interview; the researcher verbally asked the questions to each child individually, and the researcher recorded the "Yes/No" responses. This method bypassed any potential reading or comprehension difficulties inherent to this early developmental stage.

Statistical Analysis

Data analysis was conducted using SPSS v28 employing the following statistical procedures: Frequencies and percentages characterized the research sample's demographic profile; Pearson's correlation coefficient assessed internal consistency validity, Cronbach's alpha coefficient measured test reliability, and Guttman's split-

half method verified instrument stability through half-test reliability correction; the Kolmogorov-Smirnov test evaluated data distribution normality to determine appropriate parametric/non-parametric test selection (Kitchen, 2009); arithmetic means and standard deviations summarized scale scores across variables; and due to predominantly non-normal distributions, non-parametric tests were applied specifically, the Mann-Whitney U test examined gender differences (Wall Emerson, 2023) while the Kruskal-Wallis test analyzed differences across age groups (Tapio, 2025).

Psychometric Properties

Validity

Internal consistency validity was used by calculating the correlation coefficient between the score of each item and the total score of the dimension it falls under, as shown in Table 2.

Table 2. Correlation coefficient between the score of each item and the total score of the scale

Item	R	Item	R	Item	R
1	0.458*	12	0.531*	23	0.484*
2	0.704**	13	0.604**	24	0.604**
3	0.510*	14	0.531*	25	0.611**
4	0.492*	15	0.515*	26	0.458*
5	0.452*	16	0.746**	27	0.510*
6	0.484*	17	0.452*	28	0.452*
7	0.515*	18	0.515*	29	0.711**
8	0.501*	19	0.585**	30	0.585**
9	0.484*	20	0.577**	31	0.448*
10	0.458*	21	0.492*	32	0.546*
11	0.611**	22	0.463*		

** indicates p < 0.05, and ** indicates p < 0.01*

Through Table 2, it is clear that all the items of the scale have achieved statistical significance, and that most of the items reached this significance at the 0.05 significance level.

Reliability

The reliability coefficients were calculated using the following methods: Reliability by split-half method: The researcher calculated the correlation coefficient between the total scores of the odd items and the total scores of the even items of the life satisfaction scale. He then used the Guttman split-half coefficient equation to adjust for test length, and it was found that the Guttman coefficient equals 0.887. also Reliability using Cronbach's alpha coefficient: The researcher calculated the reliability of the life satisfaction scale using Cronbach's alpha coefficient, which was 0.752, a high value close to one, indicating the reliability of the scale.

To assess distribution normality, Kolmogorov-Smirnov tests were conducted in Table 3. Results revealed non-normal distributions across gender groups (males: p = 0.004; females: p = 0.013). Regarding age categories, while some groups exhibited normality (6- and 8-year-olds: p = 0.200), others did not (5- and 7-year-olds: p < 0.05). As normality was violated in at least one group per standard statistical practice (Field, 2024), non-parametric tests were applied: Mann-Whitney U for gender comparisons and Kruskal-Wallis for age group differences (Mishra et al., 2019).

Table 3. Shows that the distribution is not normal.

Variable	Category	Kolmogorov-Smirnov	Sig	Distribution Normality
Gender	Males	0.177	0.004	Non-Normal
	Females	0.174	0.013	Non-Normal
Age	5 years	0.246	0.034	Non-Normal
	6 years	0.132	0.200	Normal
	7 years	0.227	0.027	Non-Normal
	8 years	0.132	0.200	Normal

RESULTS

To investigate potential sex differences in social fear scores, a Mann-Whitney U test was conducted. As presented in Table 4, the analysis revealed no statistically significant difference between males and females (U=599 , p=.613), with a very small effect size (r=0.06). Furthermore, the descriptive statistics demonstrate highly similar mean social fear scores for males (M=44.87,SD=3.25) and females (M=44.33,SD=5.63). This statistically confirms that biological sex is not a determining factor for social fear levels within this sample.

Table 4. Mann-Whitney U Test Results for Sex Differences in Social fear

	N	Mean	Sd	mean rank	U	Sig	Effect size (r)
Males	39	44.87	3.25	37.64	599	0.613	0.06
Females	33	44.33	5.63	35.15			

To determine whether there are differences in social fear among the age groups, a Kruskal-Wallis test was conducted. As shown in Table 5, the results yielded no statistically significant differences (H(3)=0.191 , p=.984), and the effect size was found to be very small (η2=0.003). While the descriptive statistics (Means and Standard Deviations) for each age group are detailed in Table 5, the mean ranks were closely aligned (ranging from 35.41 to 38.13). This statistically confirms that there are no meaningful differences in social fear scores across the 5 to 8-year-old groups.

Table 5. Kruskal-Wallis Test Results for age differences in Social fear

Groups	N	Mean	Sd	mean ranks	H	Sig	η^2
5 years	12	46.16	6.42	38.13	0.191	0.984	0.003
6 years	17	43.94	5.05	35.41			
7 years	16	44.25	4.29	37.31			
8 years	27	44.59	3.07	35.98			

DISCUSSION

This study aimed to examine social phobia levels among children aged 5-8 years enrolled in swimming programs through a gender based comparative analysis, investigating whether significant differences exist between males and females and across age subgroups within this developmental window.

Table 4 shows non-significant results (*p = 0.613 > 0.05*), indicating that there are no statistically significant differences in social phobia between male and female children in swimming programs. This may be attributable to hormonal influences and the biological immaturity of pre-pubertal childhood. Slavich & Sacher (2019) confirm that during this developmental stage, sex hormones (testosterone in males and estrogen in females) remain at relatively low and unstable levels, resulting in minimal gender differences in anxiety responses, including social phobia. Pre-pubertal hormonal profiles therefore fail to produce the divergent anxiety patterns observed in adolescence, when hormonal fluctuations intensify (Slavich & Sacher, 2019). Additionally, familial and societal environments in early childhood tend to emphasize leniency, nurturance, and minimal aggression, which leads to similar parenting approaches for both boys and girls. Longitudinal research in Singapore on 547 children (aged 8.5–13 years) showed that parental autonomy granting reduces social anxiety trajectories similarly for both genders (Tng et al., 2025). Furthermore, Vogel et al. (2023) network analysis of 205 children aged 8-18 identified cognitive factors (negative self-beliefs, negative expectations) as central symptom network hubs in social phobia, operating equivalently across genders without structural cognitive differences (Vogel et al., 2023).

For the table 5, the non-significant age group comparison (p = 0.984 > 0.05) reveals no differences in social phobia scores across 5-8 year subgroups. This convergence reflects developmental stability of social fears during early-middle childhood. The persistence of childhood social phobia trajectories explains these patterns. The Great Smoky Mountains Study tracking children from ages 9-13 through age 19 documented childhood social phobia's predictive validity for adolescent persistence alongside comorbidities like GAD and ADHD (Bittner et al., 2007). Chronis-Tuscano et al. (2018) emphasize that behavioral inhibition, shyness, and social withdrawal represent stable temperament traits increasing social anxiety disorder risk, reinforced through consistent parent peer interactions (Chronis-Tuscano et al., 2018).

CONCLUSION

The study concludes that the level of social fear among child swimmers shows no statistically significant differences based on gender or age within the childhood years covered by the study, contrary to what is observed in adolescents and adults. This is attributed to the fact that the biological, social, and psychological factors that lead to the differentiation of social anxiety between genders in more advanced developmental stages have not yet materialized in childhood. Furthermore, the similarity in the environment and challenges faced by children across different age groups contributes to the stability of social fear levels. The study emphasizes that childhood represents a 'baseline' stage for the experience of social anxiety, which necessitates the adoption of preventive strategies and early intervention that address common factors among all children, regardless of their gender or age. Based on the findings obtained this study recommend the following: exploring specific environmental and psychological factors, utilizing multiple and objective measures, focusing on qualitative rather than quantitative differences, and attempting to study the variance between child swimmers and non-swimmers.

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