

# The Impact of a 12-week Aqua Fitness Class on Older Adult Self-Esteem

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## Background

- <sup>1</sup>The older adult population is one of the fastest growing age groups in the U.S.
- <sup>1</sup>Physical activity can decrease the risk of cardiovascular and metabolic diseases, obesity, falls, cognitive impairment, osteoporosis, cancer all-cause mortality, and muscle weakness.
- <sup>2</sup>Aqua fitness has been found to help older adults improve their pain levels, physical function, and general mental health.
- <sup>2</sup>Previous studies have shown that aqua fitness facilitates socialization of older adults, which can further aid in the improvement of emotional limitations.
- <sup>3</sup>Studies have shown that individuals who engage in physical activity have greater self-esteem, which then has a positive impact on quality of life and life satisfaction.

## Purpose

- To examine the connection between physical, mental, and emotional health in older adults.
- To determine if participation in a 12-week Older Adult Aqua Fitness classes improves self-esteem among older adults at the BGSU Student Recreation Center.
- **Hypothesis:** Self-esteem scores among the older adults participating in the 12-week aqua fitness classes will improve.

## Methods

- Participants (n=24) in Older Adult Aqua Fitness classes at the BGSU Student Recreation Center were surveyed during the first week fitness class (May 2024) and the last week of class (July 2024).
- The survey instrument contained demographic questions on class day and time, sex, marital status, living situation, and overall self-health rating followed by the 20-item State Self-Esteem Scale with subscale measures in appearance, social, and performance.
- The older adults were offered a \$20 Kroger gift card for participating in both the pre- and post-survey.

## Results

There were 24 pre-survey responses and 16 post-survey responses. Only data from the 16 participants who completed both surveys were analyzed. Demographic information for participants can be seen below in *Table 1*.

Variable	Category	n	(%)
Sex	Male	3	19
	Female	13	81
Past Session Attendance	Yes	16	100
	No	0	0
Number of Class Sessions Previously Attended	1-3 sessions	3	19
	4-6 sessions	4	25
	7+ sessions	9	56
Class Day	Monday/Wednesday	10	63
	Tuesday/Thursday	5	31
	Monday/Tuesday/Thursday	1	6
Overall Health Rating	Poor	0	0
	Fair	2	13
	Good	5	31
	Very Good	7	44
	Excellent	2	13

The pre-survey and post-survey total self-esteem scores were compared as seen in Figure 1 below.



Figure 1: Total Self-Esteem Scores from pre and post surveys

There was a statistically significant increase in self-esteem from pre-survey ( $M = 77.8$ ,  $SD = 13.7$ ) to post-survey ( $M = 84.1$ ,  $SD = 11.1$ ;  $t(15) = 1.4$ ,  $p = .003$ ).

## Discussion

Aqua Fitness class statistically improved self-esteem among the older adult participants.

- There was an average of a 6-point increase, demonstrating an upward trend from the provided responses.
- Results showed increases in all three subscales of self-esteem that were measured using the State Self-Esteem Scale: performance, social, and appearance

These findings show that physical health can impact mental and emotional health through self-esteem in older adults.

- This information can be used to promote physical group activity in older adults, not only to stay physically fit, but mentally and emotionally as well.
- Aging is difficult and sometimes brings with it feelings of loneliness. Participation in aqua fitness classes can help to ease these feelings.
- Did class day/time have an impact?
- What day/time do you suggest classes be offered?
- Why do you think Aqua Fitness class improves self-esteem?



## Limitations

- Cannot determine causation due to the cross-sectional study design.
- The sample size was small with only 16 participants.
- 30% of initial participants did not complete the post-survey (n=8)
- There were 4 people with scores that increased by 20+ points and 1 person whose score decreased by 12 points.
- More females than males participated in the study.
- Three men compared to 13 women completed the post-survey.
- The survey was only given at Bowling Green State University Student Recreation Center.

## References

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