



# Quality Of Life, Health And Well Being Of Highly Active Individuals

Louisa Raisbeck, Jeanne D. Johnston, and Joel M. Stager  
*Human Performance Laboratory, Department of Kinesiology,  
Indiana University*

# INTRODUCTION

- Overall physiological function is known to decline with age.
- Recent reports suggest, however, that maintaining an active lifestyle may result in better health status, improved quality of life (QOL), and a higher level of physical functioning throughout the aging process.

# PURPOSE

The purpose of this study is to confirm that masters swimmers are more active than the general population and regular exercise can be shown to have positive impact on quality of life, health and well being.

# METHODOLOGY

- 323 subjects aged between 21 and 88 years (47 years +/- 13.6) participated in this study
- 198 females (45.3 years +/- 13.6); 125 males (51.3 years +/- 12.5), completed a previously validated questionnaire.
- 93.4 % of the subjects were predominantly Caucasian-non Hispanic. 43.2% of all subjects had completed post graduate work
- 62% generated a household income of >\$75,000

- Subjects completed a paper or on-line survey to examine swim training history, health, physical activity, and quality of life.
- Instruments
  - Swim training and history questionnaire
  - American Heart Association Health Survey
  - 7 Day Physical Activity Recall
  - SF-36 Medical Outcomes Quality of Life Survey

# Results

## Swim History

Age Category	Male		Female	
	Average Yards	Average Days	Average Yards	Average Days
18-34	3514*	3.4	2444	2.8*
35-44	3042*	3.5	2889	3.3
45-54	2990	4.0	2560	3.5
55-64	2683*	3.7	2567	4.0*
65+	2018*	3.8	1969	3.6

Table 1 – Age group comparisons for average yards swum each week (\*Significantly different,  $p < 0.05$ )

# Physical Activity

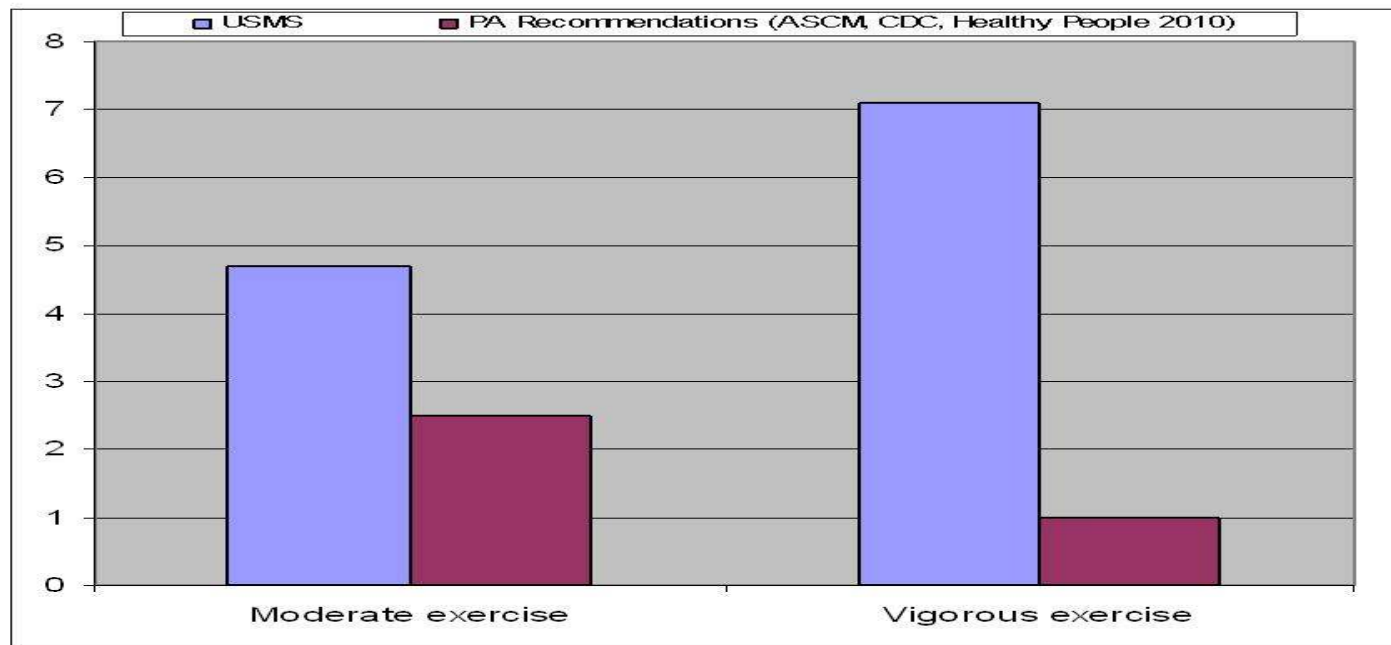


Figure 1 shows that the mean hours of participation by USMS in both moderate and vigorous exercise exceeds recommendations set by the ASCM, CDC and Healthy People 2010.

# HEALTH RELATED VARIABLES

- Percent of USMS that reported the having following health conditions
  - Diabetes 1.2%
  - Coronary artery disease 1.2%
  - Abnormal heartbeat 9.5%
  - Cancer 8.6%



# Quality of Life

- USMS population have significantly higher overall scores in all aspects of the measured quality of life ( $p < .05$ ) when compared to the general population

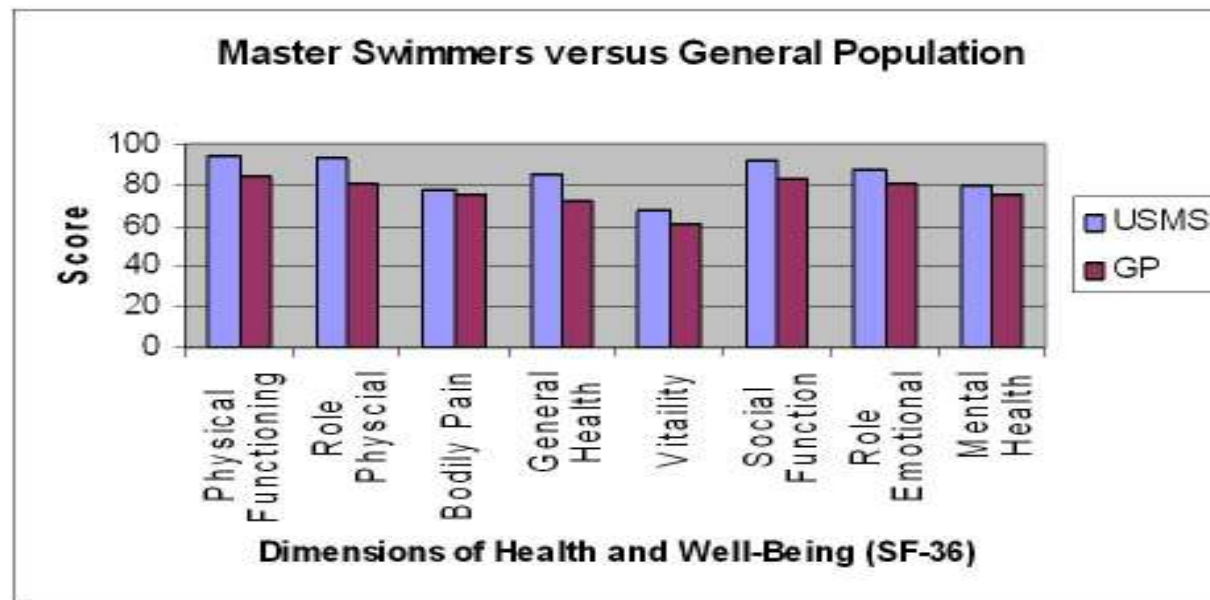
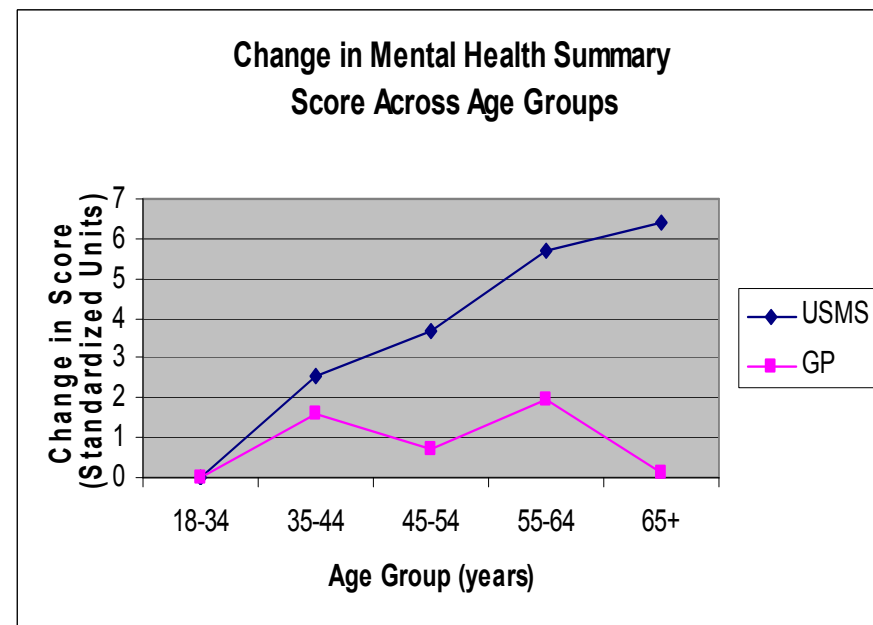
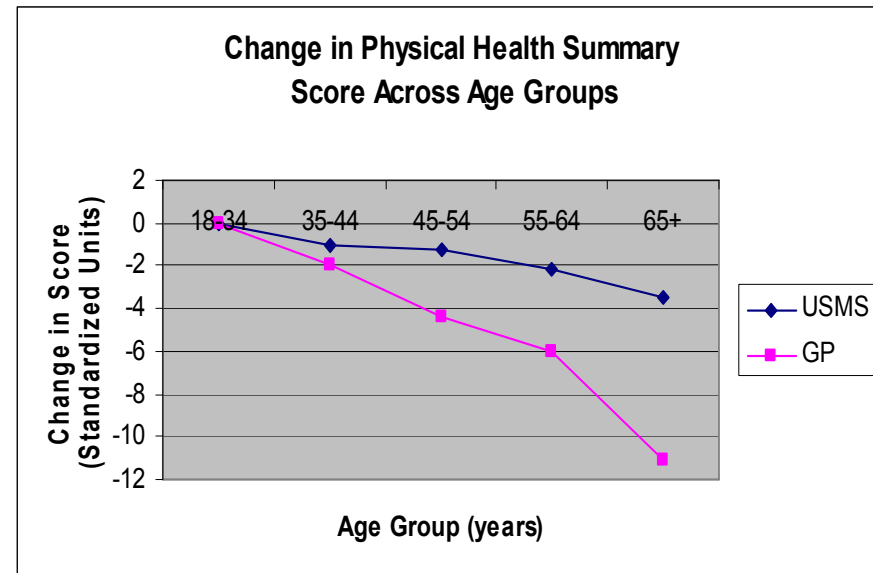


Figure 2 Comparison of the components of health and well being between USMS members and the general population

- USMS population have significantly higher overall scores in both the PCS and MCS ( $p < .05$ ) when compared to the general population.
- Significant differences were observed in MCS ( $p < 0.01$ ) when comparing the USMS population to the general population across age categories.
- Figures 3 and 4 show changes in physical (PH) and mental (MH) health scores across age groups for USMS and the General population.



# Quality of Life

- The slope of the line of change for physical and mental health scores is significantly different ( $p < 0.01$ ) for the master swimmers compared to the general population.
- The master swimmers demonstrate a linear increase in mental health ( $R^2 = .0.96$ ) whereas the general population change is non-linear in nature ( $R^2 = 0.01$ ).

# Conclusions

- Masters swimmers are more physically active than the general population. This activity appears to be consistent across age groups with a significant decline until after age 65.
- We suggest that the better (higher) scores on the instruments used to assess Quality of Life obtained from the swimmers is due to a higher level of activity

# Conclusions

- ACSM and the CDC recommend 30 minutes or more of moderate physical activity most days of the week for healthy adult populations (CDC, 1995).
- Our results reveal that the USMS population is participating above and beyond these recommendations and that this may be an important factor in the greater overall health status and QOL that these individuals enjoy.