

# An Analysis of Gender Differences in Ratings of Importance of School Physical Education and Recreation Programs

OUTSTANDING PAPER: Sports Marketing

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## INTRODUCTION

A common issue reported by professionals in the sport and recreation industry is a lack of specificity regarding how to promote physical education and town recreation programs. A separate but related concern is the lack of empirical research on how gender differences influence the utilization of promotional messages aimed at increasing the likelihood of involvement and support of physical education and recreation programs. There were seven marketer-dominated information sources examined in this study. Significant differences were found between men and women's ratings of the importance of elementary school, town recreation, and middle school physical education programs. Additionally, significant relationships between importance ratings and utilization of marketer-dominated sources of information were found. The results on this study may be relevant to recreation and marketing professionals interested in developing effective marketing communication campaigns.

Sport and recreation professionals having specific knowledge about how to develop effective marketing communication campaigns will be one-step closer to successfully promoting healthier habit-forming behavior and in turn results in life-long community-based health and wellness for their respective target markets. The purpose of this paper is to analyze data on differences between males and females' utilization of sources of information and to determine if relationships exist between ratings of sources of information and ratings of importance of physical education and town recreation programs.

The sources of information investigated in this study include those designated as marketer dominated. Marketer dominated sources of information were defined as promotional media sources commonly used in a promotional campaign. The seven marketer dominated sources of information analyzed in this study were magazine advertisements, television advertisements, books, newspapers, radio, internet, and direct mail.

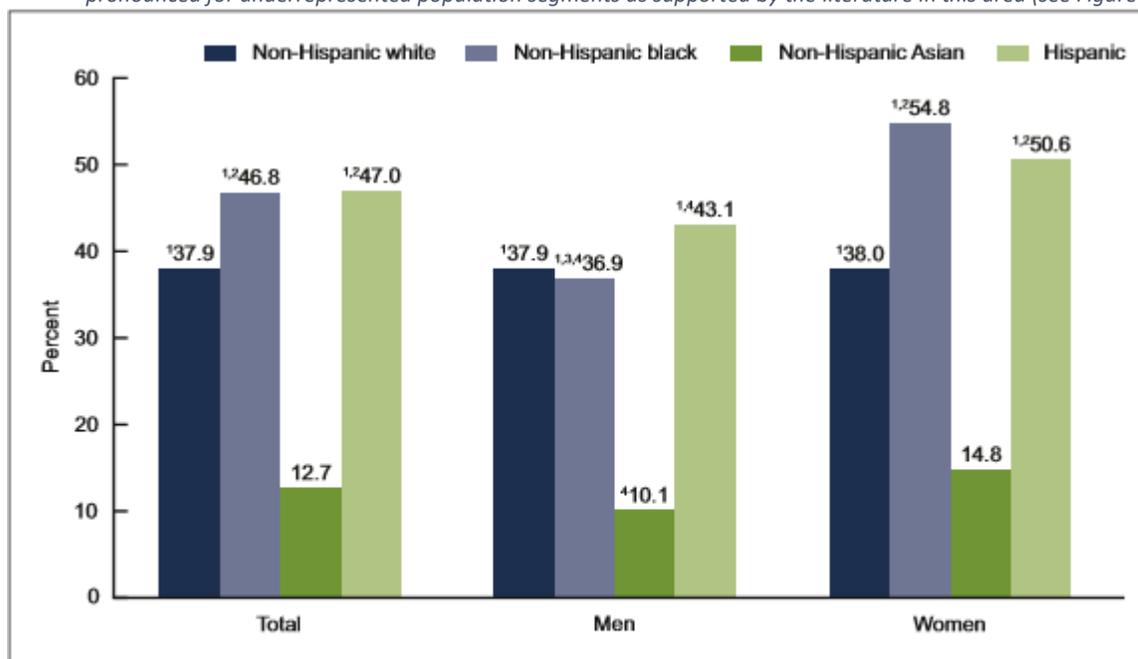
## Review of the Literature

The total revenue for the sports industry in the United States in 2017 was estimated to be 325 billion (Sports Marketing 2016-2017, 17th Edition, RKMA Market Research Handbook Series) and in 2018 it increased by 25 billion to 350 billion (Sports Marketing 2018-2019, 18th Edition RKMA Market Research Handbook Series). To date, it appears the popularity of sport is not associated with decreases in the obesity rates or increases in the physical well-being of the average American. This is the case despite the existence of sports programs such as the NFL's Play 60 program, developed specifically to combat childhood obesity (Sparvero and Warner 2019).

In 2017, approximately 29.6% of the adult population self-identified as obese, a 17.6 % increase since 1990 (Healthcare Business Market Research Handbook 2017-2018). Furthermore, Gray (2018) found that physical inactivity is a primary contributor to obesity. Obesity is only one of the negative health concerns, as it is also associated with multiple health risk factors including heart disease and diabetes (Hales, Carroll, Fryar, and Ogden 2017). Additionally, in a recent New York Times article, Brody (2019) reported that higher rates of obesity increased risk of sleep apnea.

There appears to be a disconnection between Americans' increased affinity toward sport and sport-related spending habits and the adoption of regular healthy sport and recreation activities. The authors do not believe that this alone is the result of the lack of physical activity of the average American however; there have been cases where sport marketing campaigns promoting physical activity have fallen short of their campaign goals. Professional sport teams and sport organizations have attempted to promote healthier exercise habits however; these programs generally are not empirically validated (Sparvero and Warner 2019).

The gap between Americans' passion and affinity for sport and personal physical exercise and wellness is furthermore even more pronounced for underrepresented population segments as supported by the literature in this area (see Figure 1).



<sup>1</sup>Significantly different from non-Hispanic Asian persons.

<sup>2</sup>Significantly different from non-Hispanic white persons.

<sup>3</sup>Significantly different from Hispanic persons.

<sup>4</sup>Significantly different from women of same race and Hispanic origin.

NOTES: All estimates are age adjusted by the direct method to the 2000 U.S. census population using the age groups 20–39, 40–59, and 60 and over. Access data table for Figure 2 at: [https://www.cdc.gov/nchs/data/databriefs/db288\\_table.pdf#2](https://www.cdc.gov/nchs/data/databriefs/db288_table.pdf#2).

SOURCE: NCHS, National Health and Nutrition Examination Survey, 2015–2016.

Figure

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### Gender Differences in The Utilization Of Sport And Physical Activity Promotions

Significant differences between men and women's utilization of sources of information have been found in a prior study by these authors (\_\_\_\_ and \_\_\_\_ 2017, 2019). The results from the past studies are mentioned here because they provide further evidence of the differences between male and females' utilization of sources of information. The focus of the current study is threefold. The first is to investigate further the differences between male and female utilization of sources of information and to assess gender ratings of the importance of physical education and town recreation programs. The second is to investigate the relationships between the ratings of the utilization of sources of information and the ratings of importance of physical education and town recreation programs for males and females. The third is to share the results of this study with sport and recreation researchers and professionals interested in developing promotional campaigns to increase the value and adoption of their physical fitness and physical education programs.

Research in this area is necessary because it can offer benefit by providing a clearer understanding of the existence of gender differences in the utilization of sources of information. Additionally, by reviewing empirical studies on the association between utilization of sources of information and the level of importance of physical education programs for both

males and females these studies may be helpful to sport and recreation professionals responsible for the promotion of their programs. The results of the research provided in this study may also provide empirical validation of the differences between male and females' ratings of the importance of physical education and recreation programs. These results may then be used to promote future healthier community-based information campaigns aimed at reducing obesity. According to Graham and Graham (2007), physical inactivity is not the sole cause of obesity and media campaigns are not the sole solution. Understanding the potential value of health enhancing benefits of media campaigns promoting physical activity may improve campaign effectiveness. In so doing, this may assist in the reduction of obesity and therefore improve public health. Promotional efforts aimed at educating communities about sport and recreation play a key role in enhancing healthier living standards. According to Leahy, Shugrue, Daigle, and Daniel (2009) media campaigns can be effective in promoting healthier physical fitness activity of park visitors. Research on identifying additional factors that may increase the likelihood of success of a promotional campaign to foster community-based physical education and wellness programs is long overdue.

## Methodology

### *Sample*

Five hundred seventy four subjects completed a 46-item Consumer Health Information Questionnaire. Of this total, five hundred five subjects reported their gender (282 males and 223 females). Response rates varied by question and were indicated when significant findings were reported. Questionnaire items included health and wellness topics, use of marketer sources of information and demographic type questions. Seven point Likert-type scales were used to assess subjects' level of importance and utilization of marketer sources of information.

All statistical analyzes were performed using SPSS. T tests were used to test for gender differences for subjects' ratings of marketer-dominated sources of information, and subjects' ratings of level of importance on the following five variables: Elementary School Physical Education Programs, Town Recreation Programs, Middle School Physical Education Programs, High School Physical Education Programs, and Collegiate Physical Education Programs.

A Pearson Product Correlation was also used to analyze the relationships for male subjects' ratings of marketer-dominated sources of information and their ratings of importance on each of the five variables listed above. This analysis was repeated for female subjects.

### *Findings*

Three significant differences were found @ alpha levels < 0.01 between males and females' ratings of Level of Importance of Physical Education Programs. Female subjects' ratings of Level of Importance were significantly different than the ratings of male subjects' for Town Recreation Programs, Elementary School Physical Education Programs, and Middle School Physical Education Programs (See Table 1).

Importance of Physical Education Programs	Gender	N	Mean	t	Sign (2 tailed)
Importance of Town Recreation Programs	Male	282	5.33	3.869	0.000**
	Female	222	5.79		
Importance of Elementary School Physical Education Programs	Male	278	5.61	3.534	0.000**
	Female	221	6.03		
Importance of Middle School Physical Education Programs	Male	278	5.53	3.768	0.000**
	Female	218	5.97		
Importance of High School Physical Education Programs	Male	279	5.80	1.916	0.056
	Female	220	6.02		
Importance of Collegiate Physical Education Programs	Male	278	5.38	.377	0.706
	Female	219	5.43		

Table 36- Gender Differences in Importance Ratings of Physical Education Programs – \*\*Sign. <0.01, \*Sign. <0.05

The mean for female subjects' Level of Importance ratings of Town Recreation Programs was 5.79, and the mean for male subjects' was 5.33 with  $t=3.869$ , significant @ 0.000. The mean for female subjects' Level of Importance ratings of Elementary School Physical Education Programs was 6.03, and the mean for male subjects' was 5.61 with  $t=3.534$ , significant @ 0.000. The mean for female subjects' Level of Importance ratings of Middle School Physical Education Programs was 5.97, and the mean for male subjects' was 5.53 with  $t=3.768$ , significant @ 0.000.

Several significant positive relationships for female subjects' Importance ratings of Recreation/ Physical Education Programs and Utilization of Media ratings were found. Significant findings are reported in Table 2. Female subjects' Importance ratings of Town Recreation Programs were significant for Books ( $r=.143$ , <0.05) and Newspapers ( $r=.216$ , <0.01). Female subjects' Importance ratings of Elementary Physical Education Programs were significant for both Books ( $r=.192$ , <0.01) and Newspapers ( $r=.212$ , <0.01). Female subjects' Importance ratings of Middle School Physical Education Programs were significant for both Books ( $r=.172$ , <0.01) and Newspapers ( $r=.187$ , <0.01). There were no significant correlations for female subjects' Importance ratings of High School Physical Education Programs and utilization of any media type. Female subjects' Importance ratings of Collegiate Physical Education Programs were

significant for Newspapers ( $r=.187, <0.01$ ), Radio ( $r=.171, <0.01$ ) and the Internet ( $r=.140, <0.05$ ).

Females					
Importance Ratings for Recreation and Physical Education					
Media Utilization	Town Recreation Programs	Elem School Physical Education Programs	Middle School Physical Education Programs	High School Physical Education Programs	Collegiate Physical Education Programs
Books	$r=.143^*$ Sign. (2 tailed).024 N=249	$r=.192^{**}$ Sign. (2 tailed).002 N=250	$r=.172^{**}$ Sign. (2 tailed).007 N=248		
Newspapers	$r=.216^{**}$ Sign. (2 tailed).001 N=252	$r=.212^{**}$ Sign. (2 tailed).001 N=253	$r=.187^{**}$ Sign. (2 tailed).003 N=251	$r=.153^*$ Sign. (2 tailed).015 N=253	$r=.187^{**}$ Sign. (2 tailed).003 N=252
Radio					$r=.171^{**}$ Sign. (2 tailed).007 N=249
Internet					$r=.140^*$ Sign. (2 tailed).026 N=255

Table 37- Relationship for Females' Ratings of Importance and Media Utilization -  $^{**}$ Sign.  $<0.01$ ,  $^*$ Sign.  $<0.05$

Several significant positive relationships for male subjects' Importance ratings of Recreation/ Physical Education Programs and Utilization of Media ratings were found. Significant findings are reported in Table 3. Male subjects' Importance ratings of Town Recreation Programs were significant for Books ( $r=.161, <0.01$ ), Newspapers ( $r=.245, <0.01$ ), Magazines ( $r=.217, <0.01$ ), Radio ( $r=.176, <0.01$ ), Television ( $r=.212, <0.01$ ), and Direct Mail ( $r=.174, <0.01$ ). Male subjects' Importance ratings of Elementary Physical Education Programs were significant for Books ( $r=.184, <0.01$ ), Newspapers ( $r=.245, <0.01$ ), Radio ( $r=.168, <0.01$ ), Television ( $r=.127, <0.05$ ), and Direct Mail ( $r=.152, <0.05$ ). Male subjects' Importance ratings of Middle School Physical Education Programs were significant for Books ( $r=.217, <0.01$ ), Newspapers ( $r=.248, <0.01$ ), Radio ( $r=.222, <0.01$ ), Television ( $r=.174, <0.01$ ), Internet ( $r=.138, <0.05$ ), and Direct Mail ( $r=.177, <0.05$ ). Male subjects' Importance ratings of High School Physical Education Programs were significant for Books ( $r=.155, <0.05$ ), Newspapers ( $r=.143, <0.05$ ), and Internet ( $r=.127, <0.05$ ). Male subjects' Importance ratings of Collegiate Physical Education Programs were significant for Newspapers ( $r=.201, <0.01$ ), Magazines ( $r=.165, <0.01$ ), Radio ( $r=.203, <0.01$ ), Television ( $r=.240, <0.01$ ), Internet ( $r=.145, <0.05$ ), and Direct Mail ( $r=.217, <0.01$ ).

Males					
Importance Ratings					
Media Utilization	Town Recreation Programs	Elem School Physical Education Programs	Middle School Physical Education Programs	High School Physical Education Programs	Collegiate Physical Education Programs
Books	r=.161** Sign. (2 tailed).009 N=258	r=.184** Sign. (2 tailed).003 N=259	r=.217** Sign. (2 tailed).000 N=258	r=.155* Sign. (2 tailed).000 N=259	
Newspapers	r=.245** Sign. (2 tailed).000 N=248	r=.245** Sign. (2 tailed).000 N=251	r=.248** Sign. (2 tailed).000 N=250	r=.143* Sign. (2 tailed).023 N=251	r=.201** Sign. (2 tailed).001 N=250
Magazines	r=.217** Sign. (2 tailed).001 N=248				r=.165** Sign. (2 tailed).009 N=248
Radio	r=.176** Sign. (2 tailed).005 N=250	r=.168** Sign. (2 tailed).007 N=251	r=.222** Sign. (2 tailed).000 N=250		r=.203** Sign. (2 tailed).001 N=250
Television	r=.212** Sign. (2 tailed).001 N=259	r=.127* Sign. (2 tailed).041 N=260	r=.174** Sign. (2 tailed).005 N=259		r=.240** Sign. (2 tailed).000 N=259
Internet			r=.138* Sign. (2 tailed).024 N=269	r=.127* Sign. (2 tailed).036 N=270	r=.145* Sign. (2 tailed).017 N=269
Direct Mail	r=.174** Sign. (2 tailed).004 N=274	r=.152* Sign. (2 tailed).012 N=275	r=.177** Sign. (2 tailed).003 N=275		r=.217** Sign. (2 tailed).000 N=275

Table 38- Relationship for Males' Ratings of Importance and Media Utilization - \*\*Sign.<0.01, \*Sign. <0.05

### Discussion

The results of the tests of differences between males and females found differences in gender for Ratings of Importance of Town recreation and physical education programs. Females rated the importance of Town Recreation Programs, Elementary School Physical Education Programs, and Middle School Physical Education Programs significantly different from males. Interestingly, there were no significant differences between male and females' ratings of level of importance for High School or Collegiate Physical Education Programs. One plausible reason for the lack of significant difference between the genders at these levels may be due to the often-limited required curricula for physical education in many high school and collegiate

programs. These results need to be further investigated in future studies to determine if the perceived value of physical education is influenced by curricular requirements.

The results of the data analysis on the significant differences between males and females' ratings of importance of the Town Recreation, Elementary School, and Middle School physical education programs may be of special interest to marketing professionals and practitioners responsible for the promoting physical education programs.

A separate but equally valuable set of findings emerged in this study regarding the significant positive relationships for male and females' ratings of their utilization of various forms of media and their ratings of importance of physical education programs. A total of ten significant positive correlations for females' level of media utilization and ratings of importance of recreation and physical education programs were found in this study. Seven of the ten significant positive correlations were at  $\alpha < 0.01$ , while three were at  $\alpha < 0.05$ . There were also a total of twenty-six significant positive correlations for males' level of media utilization and ratings of importance of recreation and physical education programs found in this study. Nineteen of the twenty-six significant positive correlations were at  $\alpha < 0.01$ , while three were at  $\alpha < 0.05$ .

#### *Limitations and Implications for Future Research*

While the authors believe that the results of this study provide additional insight into how males and females' media utilization may influence their ratings of importance of recreation and physical education programs, additional research may provide a better understanding of the underlying reasons for these results.

One limitation of this study stems from the use of the correlation analyses. The significant findings from the correlation analyses yielded positive correlations (as the level of media usage increased the rating of importance also increased and similarly as the level of media utilization decreased the level of the importance decreased for recreation and physical education). Correlation analyses although helpful, are limited because they do not indicate causality but rather measure the strength of the associations, and the direction of the relationships.

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*Keywords:* gender differences, sport marketing, community-based physical education, promotional strategy, marketing communication campaigns, media usage.

*Relevance to Marketing Educators, Researchers and Practitioners:* Marketing educators teaching courses in promotional strategy may benefit by learning about the results of this study related to the differences in the ways males and females utilize various media sources. Researchers and practitioners may find the results of this study relevant when developing sport and recreation community-based marketing communication campaigns.

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