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**A Comparison of the Aerobic Capacity Wellness of Female and Male Physical Therapist
Members of the American Physical Therapy Association**

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ABSTRACT

Background and Purpose. Although aerobic capacity wellness (ACW) is an important concept in physical therapy (PT), there is not an instrument to measure ACW and the ACW of PTs is unknown. The purpose of this research was to develop and assess the validity of a survey (the Physical Fitness Wellness Survey or FWS) and then utilize the FWS assess the ACW of the PT members of the American Physical Therapy Association (APTA) and compare the results by gender. **Subjects.** Participants were 146 (65% female, 35% male) volunteers from a random sample of PT members of the APTA. **Methods.** A triangulation approach (consisting of content validity, process validity, and construct validity) was employed to validate the FWS. Analyses included descriptive, nonparametric, and parametric statistics of the subjects' ACW. **Results.** The FWS is a valid instrument to assess the ACW of the PT members of the APTA. As determined by the FWS, 24.6% of the PT subjects (both females and males), 27.4% of the female PTs, and 19.6% of the male PTs were found to have a satisfactory level of ACW. **Discussion and Conclusion.** In terms of ACW, the PTs mirror the typical U.S. American and possess less ACW than other groups of health care professionals. In contrast to U.S. American females, who possess less ACW than their male counterparts, the females in this study did not. Evidence from this study suggest that at least some of PT members of the APTA need to enhance their working knowledge of concepts and terminology related to wellness and physical fitness. As PTs can enhance patient outcomes by integrating wellness into clinical practice and are wellness role models, PTs should possess a proficiency in wellness and exhibit a high level of personal wellness, particularly fitness wellness.

Key Words: Aerobic Capacity, Gender, Physical Therapy, Physical Therapists, Role Model, Wellness

INTRODUCTION

As described in the initial study¹ of this research series, the goal of this initiative is to investigate the wellness of physical therapists (PTs) and physical therapy (PT) students. Since gender is a determinant of wellness^{2,3} and PT has historically been,⁴ and continues to be,⁵ a female-dominated profession, an integral component of this collection is gender comparison. While the initial study in this series compared the wellness of female and male PT students, the remaining endeavors will focus on PTs. The specific focus of the current installment is a comparison of the aerobic capacity wellness (ACW) of female and male PT members of the American Physical Therapy Association (APTA).

It is widely acknowledged that physical therapists (PTs) can enhance patient outcomes by integrating wellness into clinical practice.⁶⁻²² It has also been recognized that PTs are wellness role models.^{1,23} Of the dimensions of wellness, the PT profession emphasizes physical fitness,^{e.g., 6-9,24} which consists of aerobic capacity (AC), muscular fitness (MF), flexibility (FLEX), and body composition (BC).^{25,26} Despite the increasing importance of wellness in the APTA and the PT profession,^{e.g., 7,8,10,11,27,28} the physical fitness wellness (PFW) of PTs has not been explored. Furthermore, a valid instrument to assess and quantify fitness practices has not been proposed.

While health and other states of being, such as maximal oxygen consumption ($\text{VO}_2 \text{ max}$) and muscular strength, can be directly measured in a clinical setting, wellness is an active process that consists of habits and practices.²⁹ Since the observation of habitual fitness behaviors would be cumbersome and cost prohibitive, it can be argued that self-report is the most appropriate option to assess fitness wellness. Indeed, the United States government relies upon self-report to assess the fitness wellness of Americans.³⁰

Since an instrument to assess fitness wellness has not previously been proposed, the first phase of this study was the development of the Physical Fitness Wellness Survey (FWS), which was designed to assess ACW, MF wellness, FLEX wellness, and BC wellness. To ensure face validity, the FWS was grounded in publications relevant to the PFW. Specifically, the FWS was based upon *ACSM's Guidelines for Exercise Testing and Prescription*²⁵; the United States Department of Health and Human Services' *Healthy People 2010*³⁰; the United States Department of Agriculture's *Nutrition and Your Health: Dietary Guidelines for Americans*³¹; and relevant publications of the APTA, including the *Guide to Physical Therapy Practice*,⁹ the *Evaluative Criteria for Accreditation Programs for the Preparation of Physical Therapists*,¹¹ and *A Normative Model of Physical Therapist Education: Version 2004*.²⁸ To further strengthen the survey instrument, references related to surveys,³²⁻⁴⁹ were considered and, as appropriate, integrated.

The unknown relationship between PT members of the APTA and ACW engendered three research hypotheses. The first hypothesis was that the FWS is a valid instrument to assess the ACW of PT members of the APTA. Although research indicates that only 25% of U.S. Americans score a satisfactory level of ACW,⁵⁰ but at least 50% of U.S. health care practitioners score a satisfactory level of ACW,⁵¹⁻⁵³ the second hypothesis was that at least 50% of PTs would score a satisfactory level of ACW. Since previous research indicates that men report more exercise,³⁰ the final hypothesis of this study was that, as determined by the survey, the male members of the APTA (Ms) would score significantly higher in ACW than the female members of the APTA (Fs).

METHODS

Variables

In this study, the dependent variable was ACW and the independent variable was wellness orientation. Wellness orientation was determined by the participants' commitment to performing

activities that promote AC. Subjects that indicated that they were “fully committed” (5 on a scale of 1 to 5) to ACW were classified as wellness-oriented. See Figure 1. The variables were based upon the logic that if a person has a full commitment to ACW, that mindset will prompt him or her to engage in activities that promote AC. This rationale was supported by Ardell who stipulated that wellness requires a “...strong sense of personal responsibility, an awareness of and commitment to life purposes...”.^{54, p.1}

Procedure

The Institutional Review Board (IRB) of Capella University approved this investigation. The potential subjects were contacted by mail and provided with a cover letter, the Physical Fitness Wellness Survey (FWS), two copies of an informed consent, and a pre-addressed and pre-stamped return envelope.

Subjects

The potential subjects in the study consisted of a random sample of 400 PT members of the APTA, which was secured from the APTA List Serve. The exclusion criteria were those respondents that: (a) failed to complete a duly signed informed consent or survey; (b) indicated that they were equal to or greater than 60 years of age; or (c) indicated that they have a medical condition that limited their ability to engage in exercise program. The rationale for excluding PTs equal to and above the age of 60 was based on research that indicated they are more likely to be obese and less likely to exercise than younger people.³⁰

Instrumentation

The instrument that was utilized in this study was the Physical Fitness Wellness Survey (FWS). The rationale for the content within the FWS was summarized in the Introduction. Medical verbiage, such as maximum heart rate and moderate versus vigorous intensity exercise, was included in the FWS because PTs are well-educated, particularly in the realm of exercise physiology and related terminology.¹¹ Since the APTA discusses AC, MF, AC, FLEX, and BC, but does not provide prescriptive guidelines, the rationale for the FWS items were based upon the guidelines of the American College of Sport Medicine (ACSM)²⁵ and Healthy People 2010.³⁰

Since the survey focused on the assessment of physical fitness habits and practices, which is an exploratory topic, the triangulation research approach was utilized since it can assess both quantitative and qualitative data and would enable the results to be viewed with a more expansive lens. The triangulation method has been successfully utilized in research involving wellness,⁵⁵ education,⁵⁶ nursing,⁵⁷⁻⁵⁹ health.⁶⁰ The qualitative assessment consisted of an analysis of the evaluative and cognitive processes that the subjects utilized to complete the survey. The quantitative assessment involved comparing the number of the subjects that agreed that the survey adequately captured their current physical fitness practices (i.e., “approved” of the survey) to the number that did not approve of the survey. The triangulation approach consisted of the analysis of content validity, process validity, and construct validity.

Content validity can be appraised and confirmed by the test constructor⁴⁹ as well as by recognized experts.³⁶ For the purposes of evaluating the content of the FWS, the wellness-oriented (PT) subjects and those (PT) subjects that met the pre-established guidelines related to PFW were considered to be “experts” in the realm of PFW. The rationale for these groups is that PTs are well-educated in exercise physiology and wellness¹¹ and PTs that are fully committed to PFW and or meet established physical fitness guidelines^{25,30} are likely to possess a proficiency in PFW. The number of experts that approved of the survey versus the number of experts that did not approve of the survey were analyzed in various groupings: wellness-oriented in one domain of PFW, wellness-oriented in two domains of PFW, wellness-oriented in three domains of PFW, wellness-oriented in each domain of PFW, wellness-oriented in ACW, satisfactory level of

wellness in one domain of PFW, satisfactory level of wellness in two domains of PFW, satisfactory level of wellness in three domains of PFW, satisfactory level of wellness in each domain of PFW, and satisfactory level of wellness in ACW. Since the data was nonparametric in nature (i.e., a satisfactory level of wellness corresponded to the number one and an unsatisfactory level of wellness corresponded to the number zero), the one sample Wilcoxon test, with a confidence level of 95%, was employed. The Wilcoxon test is an appropriate measure when the data is non-parametric and the numerical value has meaning.⁶¹

Process validity involves asking all respondents to comment on the cognitive and evaluative processes they used during completion of the survey and analyzing the feedback.³⁶ Process validity of the FWS was assessed in this manner. The responses from those subjects that were wellness-oriented in AC and or scored satisfactory in ACW were emphasized.

Obtaining evidence from the internal structure of a survey involves comparing the relationship between the responses to certain items to the responses of other items³⁶ and is referred to as construct validity.⁴⁹ To assess the construct validity of the FWS, the responses to the items related to wellness orientation were compared to the responses to ACW. The medians of each group was determined with the one sample Wilcoxon test and then the two medians were compared with the two sample Wilcoxon test to determine if they were equal. In all cases, a 95% confidence interval was required. As previously stated, the Wilcoxon test is an appropriate measure when the data is non-parametric and the numerical value has meaning.⁶¹ A plot graph was used to illustrate how well the frequency of aerobic capacity exercise was predicted by AC commitment.

Since this was an exploratory study, the reliability of the FWS was not formally assessed. However, to decrease the chance of random errors and thereby enhance the reliability of the FWS, the survey, including each item within the instrument, was supported by wellness-related publications. Furthermore, I took care to ensure that there were no mistakes in the printing or mailing of the survey or in the coding of the responses to the survey.

Data Analysis of the Aerobic Capacity Wellness of the Subjects

Aerobic Capacity Wellness (ACW) was determined by interpreting the responses to the survey items related to ACW. Participants that indicated they have at least a moderate level of commitment to ACW and indicated that they performed at least 20 minutes of vigorous intensity aerobic or at least 30 minutes of moderate intensity aerobic exercise at least five days during the past week were determined to possess a satisfactory level of ACW. The results of the Fs, Ms, and PTs as a whole were quantitatively analyzed. The results of the Fs were compared to the results of the Ms. Since the data was nonparametric in nature, the Wilcoxon test, with a confidence level of 95%, was again employed.

RESULTS

Subject Data

Of the 400 prospective subjects, 154 responded, indicating a response rate of 38.5%. As four of the respondents were excluded from the study because they reported their age was greater than 60 and four of the respondents were excluded because they indicated that they had a medical condition that limited their ability to exercise and or their dietary choices, the number of subjects in the study was 146.

Of the 146 subjects, 65% (95) indicated they were female and 35% (51) indicated they were male. Two percent (three) subjects indicated they were of African descent, 2.7% (four) reported they were of Asian descent, 0.07% (one) reported he was Hispanic, 0.7% (one) reported he was West Indian, and 0.07% (one) reported he was a mixture of four nationalities. The remainder of the subjects, or 93.2% (137), reported they were Caucasian. The mean age was 40.07 (\pm 9.94) and the median age was 40. The minimum age was 24 years and the maximum

age was 59 years. One subject reported smoking five to eight cigarettes each day; one reported use of smokeless tobacco; and the remainder (144 or 98.6%) denied the use of tobacco See Table 1.

Validity of the Survey

The results of the explorations of content validity, process validity, and construct validity of the ACW items were positive. Accordingly, the hypothesis that the FWS would be a valid instrument to assess the ACW of the PT members of the APTA was supported. Details of the triangulation results are provided below.

Content validity: Of the 36 subjects that scored satisfactory in the AC domain of PFW, 86.1% (31) indicated that the survey adequately captured their current practices related to physical fitness, i.e., approved of the survey, and 13.9% (five) did not. Of the six subjects that scored satisfactory in each of the four domains of PFW (i.e., AC, MF, FLEX, or BC), 100% approved of the survey. Of the 22 subjects that scored satisfactory in three areas of PFW, 90.9% (20) approved of the survey and 9.1 % (two) did not. Of the 37 subjects that scored satisfactory in two areas of PFW, 86.5% (32) approved of the survey and 13.5% (five) did not. Of the 61 subjects that scored satisfactory in one area of PFW, 82% (50) approved of the survey and 18% (11) did not. See Figure 2. Of the 37 subjects that were wellness-oriented in ACW, 91.9% (34) approved of the survey and 8.1% (three) did not. Of the six subjects that were wellness-oriented in each domain of physical fitness, 83.3% (five) approved of the survey and 16.7% (one) did not. Of the 12 subjects that were wellness-oriented three aspect of physical fitness, 91.6% (11) approved of the survey and 8.3% (one) did not. Of the 16 subjects that were wellness-oriented in two aspects of physical fitness, 87.5% (14) approved of the survey and 12.5% (two) did not. Of the 23 subjects that were wellness-oriented in one aspect of physical fitness 95.6% (22) and 4.3% (one) did not. See Figure 3.

Process validity: Of the 146 subjects, 84.2% (123) approved of the survey, and 15.8% (23) did not. Of the 23 subjects that did not approve of the survey, 16 provided an explanation: three reported that the survey did not take into account and or should have taken into account work-related tasks; three reported that the survey only assessed the past week and or should have assessed a longer period of time (e.g., four weeks); two stated that the items related to commitment were faulty (i.e., “no definitions of ‘min/mod/very/fully committed’ to help rate our efforts”; “what everyone may define as 1,2,3,4,5 will be different for every individual”; two reported that the mode and or intensity was not assessed and or should have been assessed; two reported that the survey did not take into account and or should have taken into account recreational activities; two stated that they didn’t understand the term BC; one stated that the BC items were awkward; one reported that that aerobic capacity should have been defined. Two additional subjects did not provide a rationale for their disapproval, but did report on their current health status. One stated that she was pregnant and the other stated that she exercises three to five times per week. See Figure 4.

Eight subjects that approved of the survey also provided feedback about their interpretation of the validity of the survey, as follows: two complimented the construction and brevity of the survey (i.e., “nice and short survey!”; “short and to the point survey!”); one stated that although the survey was reasonably well constructed, it didn’t ask for enough detail about the intensity or mode of exercise; one stated that the survey was adequate for an extremely general overview, one that stated that the survey was good and covers the key components of aerobic fitness; one stated “I believe the questions for the body composition could be a bit more detailed, but overall, I believe the survey was well-written”; one stated “It is difficult to make sure the answer is honest because of the nature of our works as PTs and therefore knowing what

the answer should be”; and one stated “It seems that you have thought this out very well. Keep up the excellent work.”

Of the 37 subjects that were wellness-oriented in terms of AC, five provided detailed feedback about the validity of the survey, as follows: two (previously mentioned) complimented the construction and brevity of the survey; one (previously mentioned) suggested that the survey should assess the past four weeks; one (previously mentioned) stated that the items related to commitment was faulty; and one (previously mentioned) stated that although the survey was reasonably well constructed, it didn’t ask for enough detail about the intensity or mode of exercise.

Of the six subjects that were wellness-oriented in each domain of physical fitness, two provided detailed feedback. One of these subjects was one of the AC wellness-oriented subjects that stated that although the survey was reasonably well constructed, it didn’t ask for enough detail about the intensity or mode of exercise. The other subject simply stated that she exercises three to five times per week.

Of the 36 subjects that scored satisfactory in the ACW, seven provided detailed feedback about the validity of the survey. These seven have been previously shared and are: the two that addressed commitment, one that suggested that the survey should assess the past four weeks, one complimented the survey on its general construction, and complained about the lack of detail regarding intensity and mode, one that complimented the survey on its construction and brevity, one that stated that the survey was adequate for an extremely general overview, and one that stated that the survey was good and covers the key components of aerobic fitness.

Construct validity: Of the total subjects, 25.3% (36) were wellness-oriented in terms of ACW and 74.7% (110) were not. With one equivalent to satisfactory and zero equivalent to unsatisfactory, their respective mean ACW scores were $0.611 (\pm 0.494)$ and $0.127 (\pm 0.335)$. See Figure 5. Using the one sample Wilcoxon test, the median ACW of the wellness-oriented sub-group was zero ($p < .001$). Using the one sample Wilcoxon test, the median ACW of the non-wellness-oriented sub-group was 0.5 ($p < .0001$). Using the unpaired student *t*-test to analyze the raw data, the AC wellness-oriented sub-group was significantly different ($p < 0.01$) from the AC non-wellness oriented sub-group. A plot graph illustrates that commitment to ACW somewhat predicted ACW. See Figure 6.

The Aerobic Capacity Self-Wellness of the Subjects

The mean ACW raw score of the subjects was $3.11 (\pm 1.934)$. In other words, the “average” subject engaged in at least 20 minutes of vigorous intensity aerobic exercise (i.e., between 70 percent and 90 percent of MHR) or at least 30 minutes of moderate intensity aerobic exercise (i.e., between 55 percent and 69 percent of MHR) slightly more than three days per week. When zero corresponds to unsatisfactory and one corresponds to satisfactory, the mean ACW score was $0.247 (\pm 0.433)$. As determined by the FWS, 24.6% (36 of the 146) of the subjects were found to have a satisfactory level of ACW. See Figure 7. Due to these results, the hypothesis that at least 50% of the PT members of the APTA possess a satisfactory level of ACW was not supported.

The mean ACW raw score of the Fs was $3.189 (\pm 1.986)$ and the mean ACW raw score of the Ms was $2.961 (\pm 1.843)$. Using the unpaired student *t*-test to analyze the raw data between the Fs and the Ms, the *p* level was found to be 0.488, which indicated that the Fs and Ms were not significantly different. When zero corresponds to unsatisfactory and one corresponds to satisfactory, the mean ACW score of the Fs was $0.274 (\pm 0.228)$ and the mean ACW score of the Ms was $0.196 (\pm 0.401)$. The Wilcoxon test determined that the mean ACW scores of both the Fs and the Ms were 0.0 at the 95% confidence interval. As determined by the FWS, 27.4% (26) of the Fs and 19.6% (10) of the Ms were found to have a satisfactory level of ACW. See Figure 7.

Due to these results, the hypothesis that the Ms possess a higher level of ACW than the Fs was not supported.

LIMITATIONS

There were several limitations related to this study. The first limitation was that the population consisted of PT members of the APTA, rather than all PTs, and the response rate was less than 100%. Accordingly, the findings can only be cautiously generalized to the PT members of the APTA and should not be generalized to PTs that are not members of the APTA. The second limitation was the nature of the subject, that is, the ACW. Wellness is a relatively new concept in the PT profession, which has historically focused on restorative care.⁴ If a participant was unfamiliar with the term wellness, or held an abridged perception of wellness, the individual may have been at risk to misinterpret the survey items related to wellness and or not respond to certain items honestly. The third limitation is that a survey was used. However, while the survey results were subject to the limitations associated with self-report data, self-perception of wellness may explain unique variance not otherwise accounted for in more objective measurements of health.⁶² The fourth limitation was that the survey instrument had not been previously validated. However, as there was no record of a valid instrument to assess ACW, this limitation could not have been avoided.

DISCUSSION

The response rate of 38.5% was considered adequate since the typical response rate for paper surveys is a mere 22%.^{63,64} The composition of the subject pool was considered representative of the proposed population since the demographic composition of the respondents was very similar to the demographic composition of the PTs of the APTA. For example, the subject pool consisted of 65% females and 35% males, and the PT membership of the APTA was 67.8% female and 32.2% male.⁵ Moreover, while the subject pool was 93.2% Caucasian, 2% African descent, 2.7% Asian descent, 0.7% Hispanic descent, and 1.4% other; the PT membership of the APTA was 92.2% Caucasian, 1.2% African American, 3.4% Asian or Pacific Islander, 1.6% Hispanic or Latino, and 1.3% other.⁵ Finally, the mean age of the subject pool was 40.07 (\pm 9.94) and the mean age of the PT members of the APTA was 41.8 years.⁵

A primary finding of this study is that the FWS is a valid instrument to assess the ACW of the PT members of the APTA. Since no other tool has been validated to assess ACW, the value of the instrument is self-evident. An added strength of the FWS is that it is brief. While not all subjects approved of the survey, the majority (84.2%) did. Moreover, approval of the survey was positively correlated to an increased level of fitness wellness. For example, although only 75% of those subjects that scored unsatisfactory in each area of fitness wellness approved of the survey, almost 91% of those subjects that scored satisfactory in each area of fitness wellness approved of the survey. The approval rates of the wellness-oriented subjects were also very high. For example, virtually 92% of the subjects that were wellness-oriented in AC approved of the survey. Although one of the six subjects that was wellness-oriented in each domain of physical fitness did not approve of the survey, this is the subject that said that the reason that she did not approve of the survey is because she engaged in (AC) exercises three to five times per week, rather than five times per week on a consistent basis. Perhaps this subject simply did not agree that it is necessary or appropriate to consistently engage in AC exercise five times per week and therefore did not approve of the survey.

Another important, albeit unfortunate, finding of this study is that the PT members of the APTA are no more "well," in terms of ACW, than the typical United States American (hereinafter referred to as U.S.A.). This conclusion is based upon the results of the current study and the comparison of these results to research that describes the ACW of other groups. In terms of ACW, only about one-quarter (i.e., 24.6%) of PT members of the APTA engaged in at least 20

minutes of vigorous aerobic exercise or 30 minutes of moderate intensity aerobic exercise on at least five days during a given week. Similarly, approximately 25% of adults in South Carolina met this guideline.⁵⁰ In contrast, Dinger and colleagues⁵¹ found that approximately 93% of certified health education specialists (CHESs) participated in regular, vigorous physical activities and concluded that, as compared to the average American adult, the CHESs were very active. Burns⁵² found that 58% of nurse practitioners met the Healthy People 2000 guidelines of at least 30 minutes of moderate intensity aerobic exercise at least five times per week. Although certified athletic trainers (ATCs) worked longer than a typical work week (i.e., 56.6 hours), Schulman⁵³ found they spent about 15.17 hours per week exercising. Finally, in the first article in this series,¹ I concluded that students in one PT program possessed a poor level of ACW. In summary, it appears that PT members of the APTA may engage in activities that promote AC as infrequently as the typical American and the typical PT student; and are less likely to possess a satisfactory level of ACW than at least several other groups of health care professionals.

According to the National Association for Sport and Physical Education,⁶⁵ physical educators should possess good physical fitness and model appropriate physical activity behavior. Although the APTA has not yet made such a statement regarding PTs, I previously suggested that PTs lead by example in the area of PFW¹⁸ and continue to advocate this stance. A comment from a participant in the current study stated the charge clearly: "I believe it is a responsibility of physical therapists to set the example of fitness for patients and [the] community." Unfortunately, the PT members of the APTA do not appear to be "walking the talk." In fact, the results of the current study suggest that the PT members of the APTA are poor physical fitness role models. A comment from a participant in the current survey captured the paradox: "I can appreciate how much I neglect my own fitness wellness as compared to my expected commitment from my patients." Comment from two other subjects, however, indicates that some PTs recognize and appreciate their role as fitness role models. One subject shared, "I enjoy working out and being a good example for my patients/clients." The other subject wrote, "As a PT, I definitely want to practice what I preach to my patients."

The third principal finding of this study is that the Fs were not found to possess less ACW than the Ms. While it is well recognized that men possess a higher VO_2 max than women, and men report more exercise than women,²⁵ this is the first study that has examined gender differences in the exercise habits of a specialized group of health care practitioners. Accordingly, the results of this study indicate that while there are fitness gender differences in other groups, there are no gender differences in PT members of the APTA.

The final, and unexpected, finding of this study is that a minority of the PT members of the APTA that participated in this study appear to have cognitive deficiencies related to wellness. Since PTs can enhance patient outcomes by integrating wellness into clinical practice,⁶⁻²² this finding is disturbing. Of the 27 comments that were made by the respondents about the validity of the survey, 23 (85%) suggested that the respondent did not possess a working knowledge of wellness-related and fitness-related concepts and or terminology.

For example, five (3%) indicated that the survey should include work-related tasks, four (3%) subjects reported they were confused by the term BC, one (0.7%) subject reported that the term AC should have been defined. Physical therapists should not only be cognizant of these terms and concepts, but be able to apply them not only to their patients, but to themselves as well. According to the Normative Model for PT Education (2004), PTs should be educated in and possess a working knowledge of fitness-related terminology and concepts, including AC, BC, strengthening, and "non-exercise" activities, such as work-related and recreational tasks. Furthermore, the APTA Guide to Physical Therapy Practice (2001) discussed the integration of

wellness into PT practice. One subject exemplifies how PTs should be able to apply this knowledge into their daily practice and recognize the outcome on their self-wellness: Show clients flex & perform w/ them, physical challenge w/ manual resistance exercise

CONCLUSION

There are several conclusions that can be drawn from this study. First, a significant portion of both female and male PT members of the APTA need to enhance their ACW. Second, at least some of PT members of the APTA need to enhance their working knowledge of concepts and terminology related to wellness and physical fitness. As PTs can enhance patient outcomes by integrating wellness into clinical practice⁶⁻²² and are wellness role models,^{1,23} PTs should possess a proficiency in wellness and exhibit a high level of personal wellness, particularly fitness wellness. Since the role of wellness in PT practice has dramatically expanded and continues to flourish,^{e.g.,7,8,10,11,27,28} PTs need to enhance their understanding of wellness and prioritize physical fitness self-wellness.

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Table 1. Characteristics of the Subjects

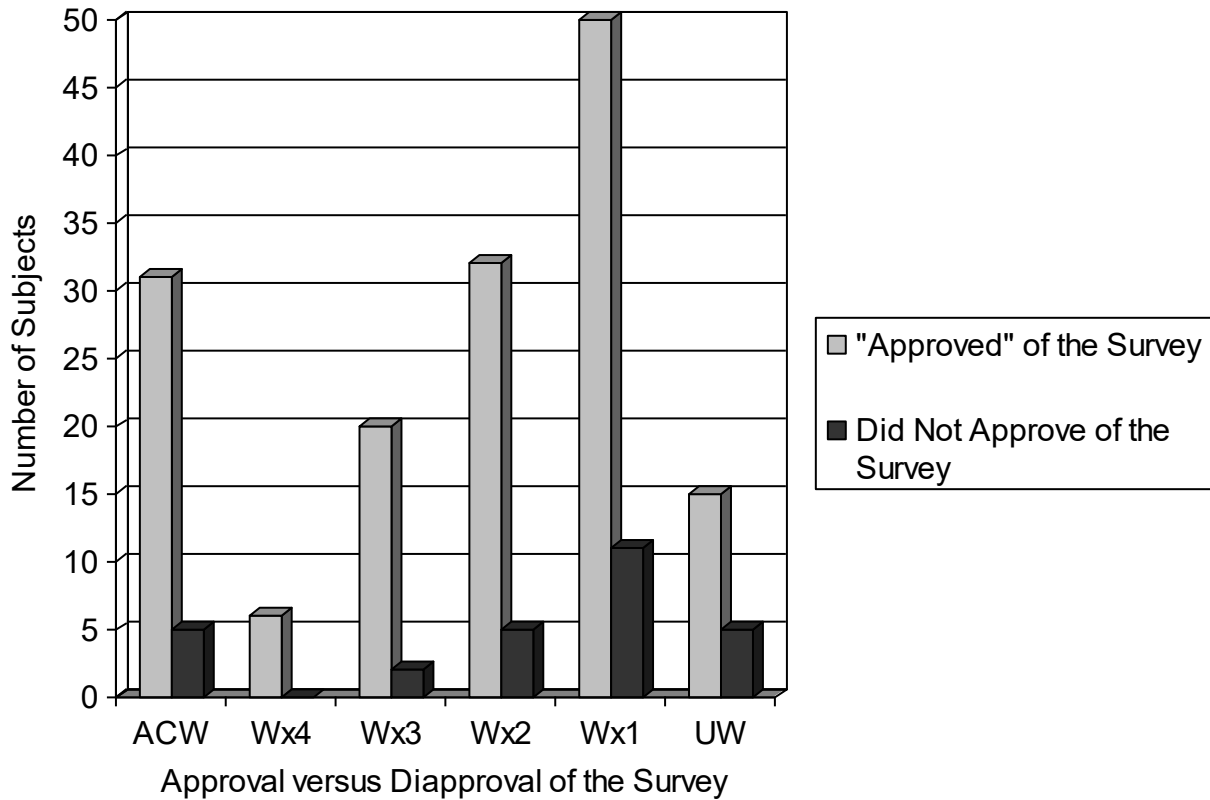
Gender (n=146)	Female = 95 (65 percent)	Male = 51 (35 percent)
Race (n=146)	Caucasian = 137 (93.2 percent)	Non-Caucasian = 10 (6.8 percent)
Age (n=146)	Mean = 40.07 years (\pm 9.94)	Median = 40 years
Tobacco Use (n=146)	Yes = 2 (1.3 percent)	No = 144 (98.6 percent)

Figure 1. Wellness Orientation as determined by Commitment to Aerobic Capacity Wellness

On the scale of 1 to 5, how committed are you to performing activities that promote aerobic capacity?

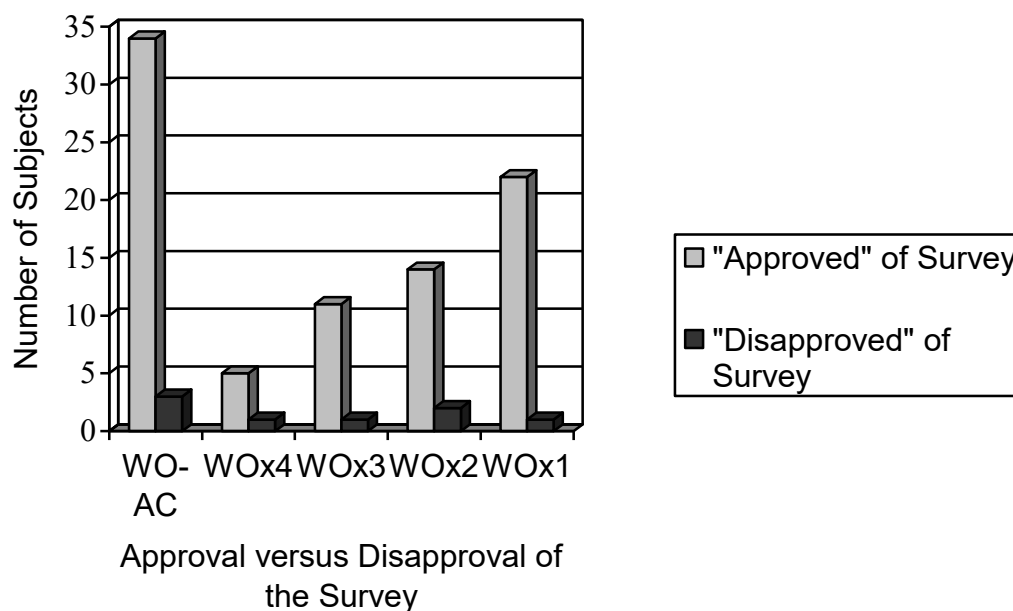
1-Not Committed 2-Minimally 3-Moderately 4-Very 5-Fully Committed

Figure 2. Content Validity: “Approval” versus “Disapproval” of the Survey by “Well” versus “Unwell” Subjects



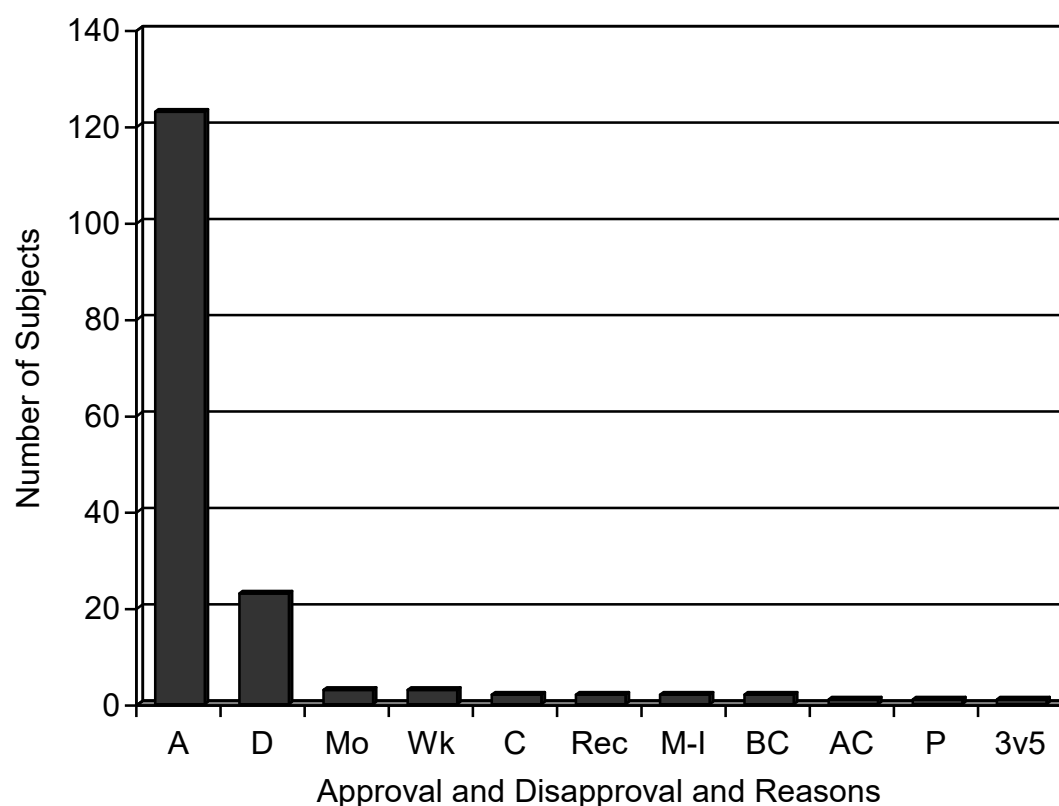
Note. “ACW” = subjects that scored satisfactory aerobic capacity domain of physical fitness self-wellness; “Wx4” = subjects that scored satisfactory in each domain of physical fitness self-wellness; “W-3” = subjects that scored satisfactory in three domains of physical fitness self-wellness; “W-2” = subjects that scored satisfactory in two domains of physical fitness self-wellness; “Wx1” = subjects that scored satisfactory in one domain of physical fitness self-wellness.

Figure 3. Content Validity: “Approval” versus “Disapproval” of Survey by Wellness-Oriented Subjects



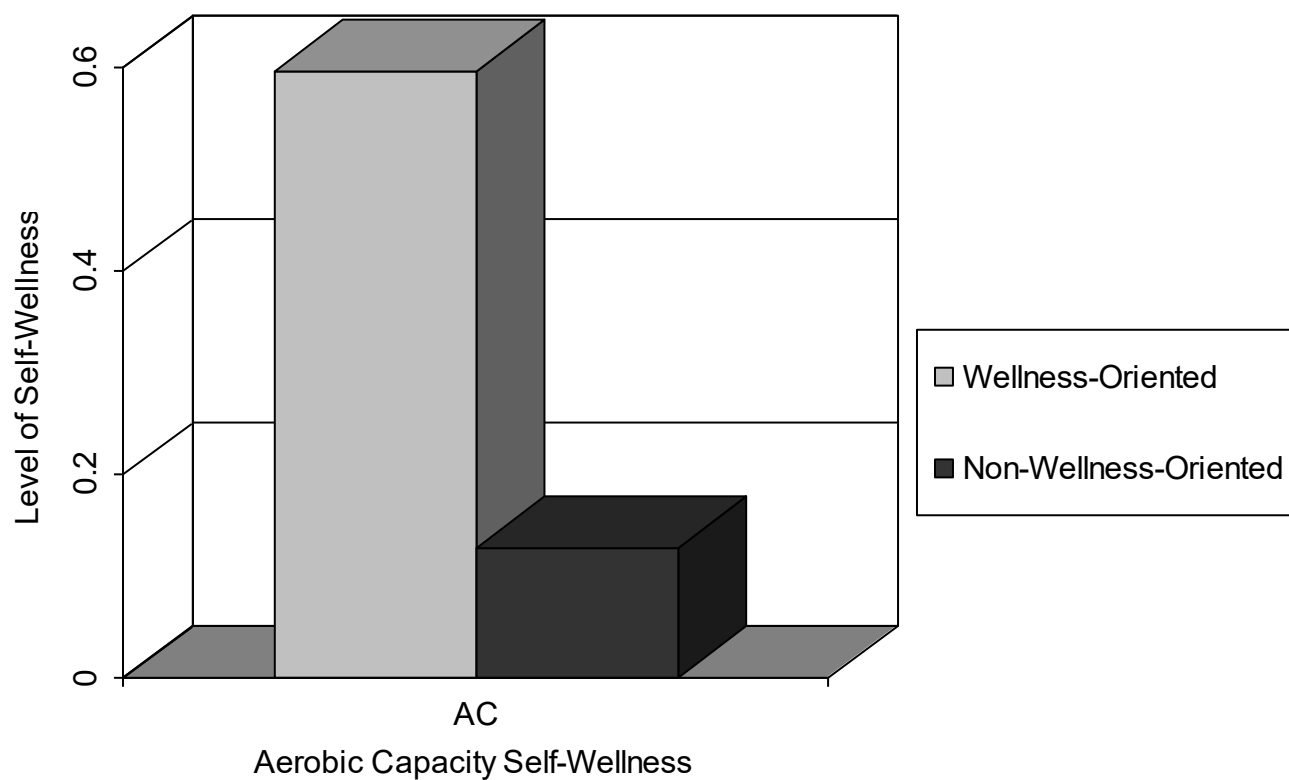
Note. “WOx1” = Subjects that were wellness-oriented in one area of physical fitness (i.e., aerobic capacity, muscular fitness, flexibility, or body composition); “WOx2” = Subjects that were wellness-oriented in two areas of physical fitness; “WOx3” = Subjects that were wellness-oriented in three areas of physical fitness; “WOx4” = Subjects that were wellness-oriented in each area of physical fitness; “WO-AC” = Subjects that were wellness-oriented in terms of Aerobic Capacity Self-Wellness.

Figure4. Process Validity: “Approval” and “Disapproval” of the Survey and Reasons for Disapproval



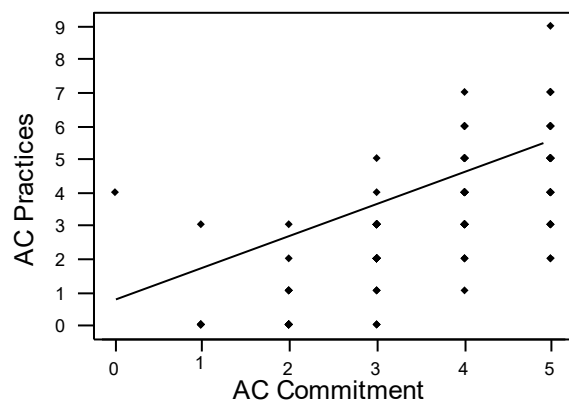
Note. “A” = Approved of the survey; “D” = Did not approve of the survey; Of those that did not approve of the Survey: “Mo” = Survey should have assessed a month, rather than a week; “Wk” = Work-related tasks were not assessed and or should have been; “C” = Confusion with the concept of committed; “Rec” Recreational tasks not assessed and or should have been; “M-I” = Mode and or intensity was not assessed and or should have been assessed; “BC” = Confusion with body composition or over fat; “AC” = Aerobic capacity should have been defined; “P” = Subject indicated that the survey was not valid for her because she was pregnant; “3v5” = Subject indicated that she exercised three to five times per week, rather than five times per week on a consistent basis.

Figure 5. Construct Validity: Aerobic Capacity Self-Wellness as Predicted by Wellness-Oriented



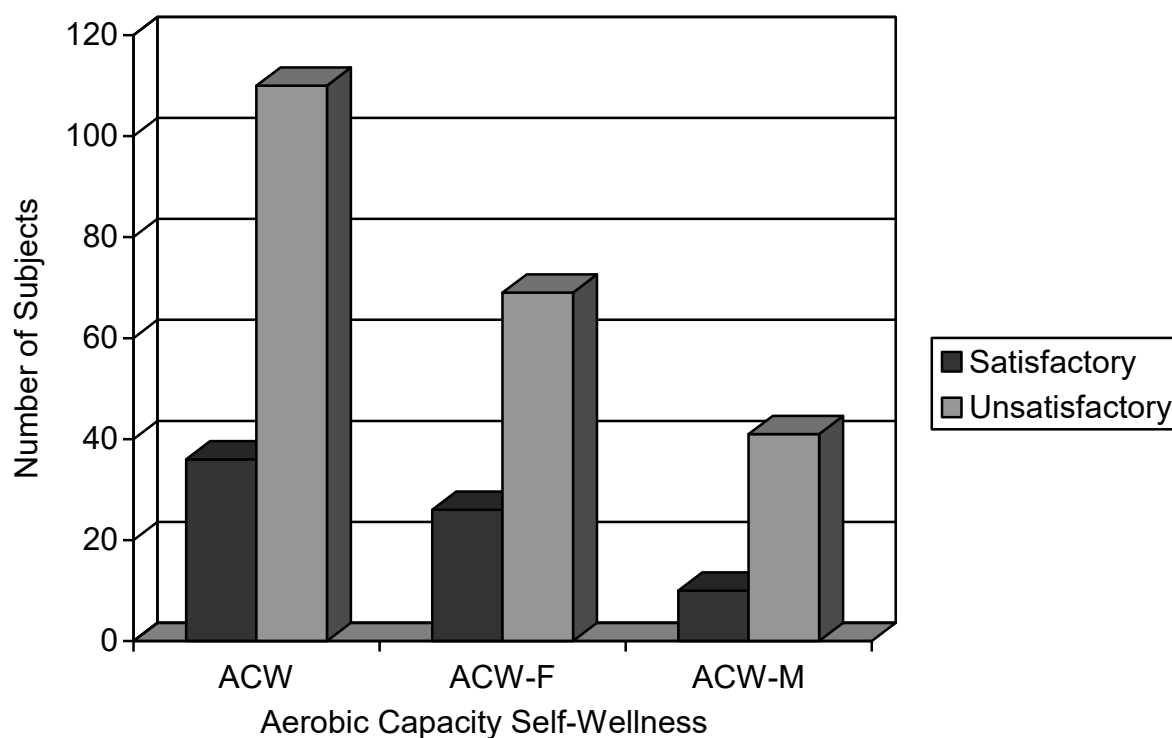
Note. Level of Self-Wellness: 0.0 = Unsatisfactory; 1.0 = Satisfactory.

Figure 6. Practices that Promote Aerobic Capacity as Predicted by Level of Commitment to Aerobic Capacity Self-Wellness



Note. AC = aerobic capacity.

Figure 7. The Aerobic Capacity Self-Wellness of the PT Members of the APTA



Note: “ACW” refers to the aerobic capacity self-wellness (ACW) of both the female and the male subjects; “ACW-F” refers to the ACW of the females; “ACW-M” refers to the ACW of the males.