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Benefits of the CSCS Credential to the Physical Therapist: A Descriptive Study

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ABSTRACT

The Certified Strength and Conditioning Specialist (CSCS) credential is intended to demonstrate expertise in strength and conditioning principles and implementation of this knowledge into training for performance enhancement. There is a lack of evidence regarding the value of the CSCS in physical therapist (PT) practice. The purpose of this study was to discern perceived benefits of the CSCS in physical therapists. Methodology for this descriptive study included administration of a cross-sectional, online survey to physical therapists holding the CSCS credential. The survey was administered online over 5 months and consisted of 14 multiple choice and Likert scale questions. Results indicated that 136 participants completed the survey with a 32.1% response rate. Exactly 53.7% of respondents reported their primary motivation for attaining the CSCS was “To further increase my knowledge base.” A majority agreed that the CSCS led to new opportunities in their practice (66.7%), more respect from other therapists (79.3%), and better care provided for patients (77.9%). However, the majority of participants disagreed that the CSCS led to more respect from physicians (66.7%) or an increase in salary (56.7%). Most importantly, 94.1% reported that they would still attain the CSCS credential if they went back in time. The conclusions from this study indicate that there are perceived benefits in PT’s who hold the CSCS credential. The findings from this study may positively affect the decisional balance in PT’s who are considering acquiring the CSCS credential in the future, though results should be interpreted cautiously due to the relatively low response rate.

Key Words: Sports, Performance, Rehabilitation, Education

INTRODUCTION

The Certified Strength and Conditioning Specialist (CSCS) credential denotes expertise in strength and conditioning principles for the purpose of improving athletic performance^{1,4}. Individuals with the CSCS credential are typically employed in school athletic departments and sports medicine clinics². A national survey indicated employers believed those possessing the CSCS credential were more likely to advance in their career and demonstrate a high level of competency and expertise in exercise instruction and design of strength and conditioning programs, suggesting employers have favorable attitudes concerning the benefits of hiring individuals holding a CSCS certification⁷. The results of that survey, however, were not exclusive to employers in physical therapy clinics.

This demonstration of skill makes individuals with the CSCS credential a desirable hire for improvement of strength and conditioning facilities, as their knowledge can be utilized for more than training practices. Judge and colleagues (2012) found the CSCS to have a significant influence on high school strength and conditioning facilities with respect to facility size and equipment selection, in addition to traditional program design⁶. This could be extrapolated to the field of physical therapy in that physical therapists (PTs) with a CSCS could potentially impact their facilities in a similar manner, especially those practicing in a sports medicine setting.

A 1992 survey investigating the subjective value of the CSCS certification reported the second-highest percentage of certified CSCSs were employed in sports medicine clinics². More

importantly, they found acquisition of the credential does increase knowledge and positively influences opportunities for speaking engagements, authorship, and expert consultation. It bears mentioning that survey respondents perceived that the credential does not influence income nor do physicians appear to hold the CSCS in high esteem. While physical therapists were included in the survey samples, it did not evaluate the relevance of the CSCS specifically to physical therapist practice, and our literature review returned no evidence of such a study.

Perhaps related to the CSCS credential are orthopedic and sports physical therapy specializations within the physical therapy profession. Sports Physical Therapy is defined by the Sports Physical Therapy Section of the American Physical Therapy Association as “a specialized practice that focuses on prevention, evaluation, treatment, rehabilitation, and performance enhancement of the physically-active individual”⁵. The American Board of Physical Therapy Specialties (ABPTS) has certified 14,392 individuals in a total of seven separate physical therapy specialty areas including cardiovascular and pulmonary, clinical electrophysiology, geriatrics, neurology, orthopaedics, pediatrics, sports, and women's health. Physical therapists who wish to become ABPTS specialists must offer proof of clinical experience in the specialty area and pass a rigorous written examination. It is purported that those who have attained this certification demonstrate advanced clinical knowledge and skills in their chosen physical therapy specialty area.³

The reasons for attaining ABPTS certification in physical therapists have been reported.⁸ Therapists pursue the certification for proof of expertise, personal challenge, professional career goals, and to reflect advanced practice to patients, physicians and third-party payers.

The perceived benefits of the specialty certification to PTs are many, including: a positive impact on sense of personal achievement, self-confidence, patient care outcomes, credibility and professional recognition. Research suggests that PTs report enhanced professional growth including more consultations, invited presentations, new job opportunities, leadership and service, teaching opportunities, research collaboration, and networking.⁸

Of all ABPTS specialized PTs, 59% are orthopedic certified specialists (OCS), and 8% are sports certified specialists (SCS). It is not uncommon to see PTs who possess both ABPTS certification and CSCS credentials. In an increasingly competitive healthcare marketplace, PTs may be constantly looking to improve their qualifications and thus marketability, especially in some of the non-traditional physical therapy practice areas such as health promotion and wellness and performance enhancement. There is a clear absence of published research demonstrating the benefits of the CSCS credential specifically for physical therapists. Therefore, the purpose of our investigation was to discern benefits of the CSCS to physical therapist practice and the primary motivation for attaining the credential using a nationwide survey of licensed physical therapists holding the CSCS. Since little is known about this subject, the authors did not believe enough data existed to support development of a formal hypothesis.

METHODS

Experimental Approach to Problem

The study was descriptive in nature and utilized a cross-sectional survey design. All survey item responses were anonymous, and no identifying information was collected. The study attempted to ascertain physical therapists' perceptions of the benefits of the CSCS credential to their profession as a physical therapist. The study was approved by the Institutional Review Board (IRB) at XXXXXXXX University.

Subjects

The inclusion criteria for participation in the study involved the following: 1) currently licensed physical therapist in the United States and 2) currently holding the CSCS credential. No exclusion criteria were set concerning length of time in possession of the physical therapy license or the CSCS credential. Participants were only excluded if they had participated in the pilot study. In this particular study, no information was gathered regarding membership in the NSCA. Participants were recruited throughout all of the United States in order to allow for a larger sample size. Per IRB guidelines, subjects were informed that "there is a potential risk of loss of confidentiality in all email downloading and internet transactions." Also, the beginning of the online survey stated, "The return of your completed questionnaire constitutes your informed consent to act as a participant in this research."

The demographic results regarding the participants of the survey are shown in Table 1. A majority of participants (89.7%) were working full-time as physical therapists as they indicated working >32 hours per week. In addition, most of the participants (86%) reported they had practiced physical therapy for more than 5 years. There were a variety of responses

for number of years with the CSCS credential, with the most common response as 5-9 years (39%).

Procedures

The survey used in this study was adapted from the survey utilized in a previous pilot study. The original survey was developed by physical therapy students from (*blocked to avoid identifying information*) seeking to inquire about the potential benefits of obtaining the CSCS credential. The survey used in the pilot study consisted of 12 items and a convenience sample ($n = 6$) was used from the greater Houston, TX area. The pilot survey was developed using feedback received from local physical therapists. It was then sent to an expert panel who reviewed the survey for content validity. The instrument is also believed to possess face validity as it appears to measure perceived benefits of the CSCS to physical therapists.

Internal consistency using Cronbach's α was determined for the Likert scale questions regarding the potential benefits of the CSCS. Cronbach's α was calculated to be 0.864, demonstrating high internal consistency. Only 1 item of the 10 Likert scale questions did not add to the consistency of the instrument. If this item ("I have continued to provide services to my clients following their discharge from physical therapy") were removed, the internal consistency would further increase to $\alpha = 0.880$. The correlation of this item to the total score was .280 while all other item to total score correlations were greater than 0.5. This item may require revision in future surveys.

The pilot study findings and feedback from its investigators indicated that minor adjustments in phrasing and additional questions and/or answer choices could be incorporated in order to improve the clarity and scope of the survey. These adjustments determined the final draft of the survey which consisted of 3 demographic multiple choice questions, 1 multiple choice question regarding motivation, and 10 Likert scale questions regarding the perceived benefits to produce a total of 14 questions (Figure 3). The Likert scale questions consisted of 5 answer choices – Strongly Disagree, Disagree, Neither agree or disagree, Agree, and Strongly agree.

To identify potential participants, online searches were performed through the APTA “Find a PT” database as well as through Google and Yahoo search engines. The search terms utilized included: 1) “PT, CSCS”; 2) “physical therapist” AND “CSCS”; 3) “DPT, CSCS”; and 4) “MPT, CSCS”. Individuals found through the searches were contacted if an email address was available. Additionally, a search was performed on Twitter for participants. Individuals found in the Twitter search were contacted about providing an email address if they were interested in participating in the study. These searches were performed from April –August 2012. All individuals found in the searches performed were immediately contacted via email with the online survey prompt. Each participant was then contacted one month following with a reminder email. The prompts for the introductory email, introductory “tweet” via Twitter, and reminder email are shown in Figure 1.

During recruitment of subjects, the survey prompt was sent via email and included a hyperlink to direct participants to the study. The inclusion criteria were laid out in the

instructions and individuals who did not qualify were asked to simply close the window for the survey. The email prompt and the survey instructions also stated the expectation that the survey would take 5-10 minutes to complete. The pilot study had utilized Survey Monkey to administer the original survey, however, the researchers encountered occasional technical difficulties that prompted them to consider another online survey generator for the final study. The final survey utilized PsychData and was available online from April 1-August 31, 2012.

Statistical Analyses

PsychData collected all of the responses and formulated initial summary reports regarding the data. PsychData also provided exported spreadsheets with all responses in Microsoft Excel and SPSS version 15.0, which was used to calculate descriptive statistics for all variables. Variables included survey items related to motivation for attaining the CSCS credential, and perceived benefits of the CSCS, in addition to years of experience as a PT and years after attaining the CSCS.

RESULTS

Participants

A total of 424 individuals were contacted to request their participation in the study. The survey closed with 136 participants, producing a response rate of 32.1%. There was minimal missing data as 130 participants (95.6%) answered every question of the survey.

Primary Motivation

All participants submitted responses to the multiple choice question regarding their primary motivation for obtaining the CSCS credential and the results are summarized in Table 2. Overwhelmingly, the most frequent response (53.7%) was “To further increase my knowledge base.” The “Other” open-ended option to provide an alternative response to those listed was selected by 21.3% of participants, which was the second most common selection. These “Other” responses provided further insight regarding motivation and the responses were categorized by theme. The most common themes for the open-ended responses were: 1) “To work with the athletic/sports population” (31%); 2) “To be more marketable or more competitive for jobs” (24.1%); and 3) “To do personal training, strength and conditioning, or performance enhancement” (13.8%). Table 3 provides the complete list of the themes and their relative percentages for the “Other” responses. Interestingly, only 0.7% selected that their primary motivation to obtain the CSCS was “To increase my salary.”

Job Advancement

Three of the Likert scale questions regarding the potential benefits of the CSCS were related to the category of job advancement. The percentages for each response are shown in Table 4. It was found that 56.7% of participants responded “disagree” or “strongly disagree” for the item stating “My CSCS credential has allowed me to attain a higher salary.” In regards to

the item “I have been promoted because of my CSCS credential,” 38.1% of participants responded “disagree” and 28.4% responded “neither agree or disagree”. More informative, however, was that 66.7% of participants chose “agree” or “strongly agree” for the item stating “My CSCS credential has led to new opportunities in my practice.”

Respect

Two items were related to the potential benefit of respect gained from the CSCS credential. The percentages for each response can be found in Table 4. Most participants (42.4%) chose “neither agree or disagree” for the item stating “I have gained more respect from physicians after attaining the CSCS credential.” It should be noted only a combined 17.6% selected “agree” or “strongly agree.” However, 55.6% selected either “agree” or “strongly agree” for the item stating “I have gained respect from other therapists after attaining the CSCS credential.”

Quality of Care

The survey consisted of two items related to quality of care in regards to potential benefits. Both items had strong agreement. The specific percentages for each response are indicated in Table 4. 80% of participants chose either “agree” or “strongly agree” in response to the item “Having the CSCS credential has made me a better clinician” and 77.9% chose either “agree” or “strongly agree” for the item stating “Having the CSCS credential has allowed me to

provide better care to my patients.” It should be noted that the inter-item Spearman correlation for these two items is 0.908.

Use of Credential

There were two Likert scale items corresponding to the category of use of the credential. These two items also demonstrated strong agreement among participant responses. For the item “Knowledge gained from the CSCS credential is used regularly in my practice,” 80.7% of participants selected either “agree” or “strongly agree,” and 61% chose “agree” or “strongly agree” regarding the item stating “I have continued to provide services to my clients following their discharge from physical therapy.” The percentages for each response are listed in Table 4.

Value of Credential

There was one item specifically related to the value of the credential. When participants were asked to respond to the statement “If I had the opportunity to go back in time, I would still attain the CSCS credential,” 94.1% chose either “agree” or “strongly agree.” This item produced the strongest agreement among participants. The percentages for each response to this item are found in Table 4.

DISCUSSION

Our study determined the primary motivation of attaining the CSCS credential and its perceived benefits to the physical therapist. The results from our study indicated that the primary motivation for physical therapists to get the CSCS was to increase their knowledge in strength and conditioning. In terms of job advancement, it was determined that there is no increase in salary or promotions but attaining the credential can possibly lead to new work-related opportunities. Also, participants of our study generally agreed that there was no gain in respect from physicians but there was potential gain in respect amongst other physical therapists. Majority of participants felt they were better clinicians and provided better quality of care due to having the CSCS. Many also felt that the knowledge gained from the credential is regularly used in their everyday practice. Most importantly, 94% of the participants said if they could go back in time to attain this credential, they would do it again.

The CSCS is indicated for physical therapists who want to become more knowledgeable in strength and conditioning. The credential is applied to help further train athletes to improve their athletic performance and implement an effective training program to prevent injury¹. Certification is also encouraged for those who want to provide better quality care for their patients, gain respect from their peers, and seek possible additional work opportunities in their practice. In comparison to other studies, this is the first study specifically on physical therapists' perceptions of receiving the CSCS credential and its benefits for the physical therapist². Positive results from the survey have led to the ability to distinguish different motives of attaining the credential and why many physical therapists feel that it is beneficial to their practice. The study also determined the effect of the credential on job advancement and salary benefits within the

field of physical therapy, which has not previously been reported in the literature. No studies relate attaining the credential in addition to having a physical therapy license and the impact of both to the physical therapy profession.

There were some limitations to the study. First, the online surveys allow the opportunity to receive false information from the participants. There is no true way of preventing participants from not answering the questions truthfully. It is under the participant's discretion to accurately provide the correct information. Secondly, due to our study only sampling CSCS credentialed physical therapists, there may be a participant bias. Participants may have responded to questions a certain way because they felt the results of the study should support the benefits for the credential. Third, our study did not measure geographical location of recruits. Although participants were recruited throughout the United States, equal representation is not a guarantee, therefore additional research is required to determine if factors such as geographical location affect whether physical therapists attain this credential and what opinions may exist in the region concerning its potential benefits. For example, further research might investigate whether direct access in the state of which they practice is a factor in the opinions of the benefits of the credential. Finally, due to the relatively low response rate, there is the potential for non-response bias. That is, it is feasible that only PTs who value the CSCS credential completed the survey. Further research is needed to either support or reject the findings of this study.

Because most individuals with a CSCS work in sports settings, and as the physical therapist profession continues to encourage specialization, further research is necessary to explore the value and opinions of the CSCS among physical therapists, as our study is the first to

review the benefits of the CSCS to physical therapist practice. Future investigators should consider completing further research focusing on the following: (1) equal distribution of the survey across the nation to determine if one area has different opinions regarding the CSCS, (2) look into the practice setting in which the PT uses their CSCS and if the credential is common in their practice or only unique to themselves, (3) determine the amount of time spent using specific strength and conditioning principles for patients in addition to typical physical therapy treatment, (4) modify the questionnaire to provide more meaningful information such as giving more opportunity for open ended answers and removing questions similar in content, (5) complete a search through the NSCA directory to further expand recruitment in the future and (6) determine the pros and cons of attaining the credential to provide better insight on the decisional balance for those considering sitting for the CSCS.

PRACTICAL APPLICATIONS

The present study explored the primary motivation for physical therapists to acquire the CSCS and the benefits of attaining this credential. The primary motivation for physical therapists to earn this credential was to increase their knowledge in strength and conditioning. Participants felt that they provide better quality of care due to possessing the CSCS and the knowledge gained from the credential is regularly used in their everyday practice. Most significantly, participants said if they could go back in time to attain this credential they would do it again.

The CSCS is indicated for those physical therapists seeking to: increase their knowledge in strength and conditioning, provide better quality care for their patients, gain respect from their peers and pursue possible new work opportunities in their practice.

ACCEPTED

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ACCEPTED

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TABLE 1 – Demographic items with their percentages (and frequencies) for each response.

	<5 years	5-9 years	10-14 years	15 years or more
How long have you been practicing physical therapy?	14.0% (19)	29.4% (40)	25.7% (35)	30.9% (42)
How long have you had the CSCS?	16.2% (22)	39.0% (53)	33.1% (45)	11.8% (16)
	<8 hours	8-16 hours	17-32 hours	>32 hours
In a typical week, how many hours do you work?	0.0% (0)	0.0% (0)	10.3% (14)	89.7% (122)

TABLE 2 – Primary motivation for acquiring CSCS with percentages (and frequencies) for each response.

	To increase my salary	To gain more respect from peers	The desire to provide a higher quality of care to patients	To further increase my knowledge base	Other (please specify)
What was your PRIMARY motivation to acquire the CSCS credential?	0.7% (1)	5.1% (7)	19.1% (26)	53.7% (73)	21.3% (29)

TABLE 3 – “Other” responses regarding primary motivation for acquiring CSCS with relative percentages (and frequencies) for each category.

To work with the athletic/sports population	31.0% (9)
To be more marketable or more competitive for jobs	24.1% (7)
To do personal training, strength and conditioning, or performance enhancement	13.8% (4)
To increase knowledge about the topic	10.3% (3)
Obtained for a job prior to becoming a PT	10.3% (3)
Alternative responses	10.3% (3)
1) “Graduation requirement for US Army-Baylor DPT program”	
2) “All of the above”	
3) “To attract a variety of clients”	

TABLE 4 – Potential benefit items using Likert scale with percentages (and frequencies) for each response.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
JOB ADVANCEMENT					
My CSCS credential has allowed me to attain a higher salary.	4.4% (6)	14.0% (19)	25.0% (34)	32.4% (44)	24.3% (33)
I have been promoted because of my CSCS credential.	2.2% (3)	8.2% (11)	28.4% (38)	38.1% (51)	23.1% (31)
My CSCS credential has led to new opportunities in my practice.	16.3% (22)	50.4% (68)	15.6% (21)	11.1% (15)	6.7% (9)
RESPECT					
I have gained more respect from physicians after attaining the CSCS credential	2.2% (3)	15.4% (21)	42.6% (58)	26.5% (36)	13.2% (18)
I have gained more respect from other therapists after attaining the CSCS credential.	6.7% (9)	48.9% (66)	30.4% (41)	8.9% (12)	5.2% (7)

QUALITY OF CARE					
Having the CSCS credential has made me a better clinician.	28.9% (39)	51.1% (69)	11.1% (15)	5.2% (7)	3.7% (5)
Having the CSCS credential has allowed me to provide better care to my patients.	31.6% (43)	46.3% (63)	13.2% (18)	6.6% (9)	2.2% (3)
USE OF CREDENTIAL					
Knowledge gained from the CSCS credential is used regularly in my practice.	34.8% (47)	45.9% (62)	12.6% (17)	4.4% (6)	2.2% (3)
I have continued to provide services to my clients following their discharge from physical therapy.	20.6% (28)	40.4% (55)	13.2% (18)	22.8% (31)	2.9% (4)
VALUE OF CREDENTIAL					
If I had the opportunity to go back in time, I would still attain the CSCS credential.	50.4% (68)	43.7% (59)	4.4% (6)	1.5% (2)	0.0% (0)

FIGURE 1 – Email and Twitter prompts for recruitment of participants.

<p><u>INTRODUCTORY EMAIL</u> Subject: CSCS Survey</p> <p>Title of Study: What are the benefits of the CSCS to Physical Therapists?</p> <p>Little is known about the role fitness credentials play in the professional lives of physical therapists. The purpose of this survey is to determine the benefits of obtaining the Certified Strength and Conditioning Specialist (CSCS) certification in addition to having a physical therapy degree. The survey is brief and should take approximately 5 minutes to complete. The information that you provide will not be linked to any identifying information. Your answers will be kept confidential and no responses will be released. Your participation is voluntary, and participation may be discontinued at anytime during the survey. Please only take this survey if you are a licensed physical therapist and have the CSCS certification. If you have any questions, prior to or after completing this survey, you may contact (XXX) of (XXX) at (XXX).</p> <p>Please click on the provided link (XXX) to take this survey. <i>(There is a potential risk of loss of confidentiality in all email downloading and internet transactions.)</i> Your participation is greatly appreciated and is important for the development of research and its benefit to physical therapy as a profession.</p> <p>Thank you, (XXX)</p>
<p><u>REMINDER EMAIL</u> Subject: CSCS Survey</p> <p>Title of Study: What are the benefits of the CSCS to Physical Therapists?</p> <p>This is just a reminder that we are awaiting survey responses. If you have already completed the survey or do not qualify (specifications below), please disregard this message.</p> <p>Little is known about the role fitness credentials play in the professional lives of physical therapists. The purpose of this survey is to determine the benefits of obtaining the Certified Strength and Conditioning Specialist (CSCS) certification in addition to having a physical therapy degree. The survey is brief and should take approximately 5 minutes to complete. The information that you provide will not be linked to any identifying information. Your answers will be kept confidential and no responses will be released. Your participation is voluntary, and participation may be discontinued at anytime during the survey. Please only take this survey if you are a licensed physical therapist and have the CSCS certification. If you have any questions, prior to or after completing this survey, you may contact (XXX) of (XXX) at (XXX).</p> <p>Please click on the provided link (XXX) to take this survey. <i>(There is a potential risk of loss of confidentiality in all email downloading and internet transactions.)</i> Your participation is greatly appreciated and is important for the development of research and its benefit to physical therapy as a profession.</p> <p>Thank you, (XXX)</p>
<p><u>INTRODUCTORY TWEET</u> I'm a DPT student @ (XXX) doing research on benefits of CSCS to PTs. If interested, email (XXX) for info.</p>
<p><u>REMINDER TWEET</u> REMINDER: DPT student research on benefits of CSCS to PTs. Please email (XXX) to participate in study!</p>

FIGURE 2 – Survey Questions and Instructions

Questionnaire

I am a licensed physical therapist in the United States and I currently possess the Certified Strength and Conditioning Specialist (CSCS) certification.

If you DO NOT AGREE with the above statement, please exit the survey at this time.

If you AGREE, please proceed with survey.

The return of your completed questionnaire constitutes your informed consent to act as a participant in this research.

1. How long have you been practicing physical therapy?
 - a. <5 years
 - b. 5-9 years
 - c. 10-14 years
 - d. 15 years or more
2. In a typical week, how many hours do you work?
 - a. <8 hours
 - b. 8-16 hours
 - c. 16-32 hours
 - d. >32 hours
3. How long have you had the CSCS?
 - a. <5 years
 - b. 5-9 years
 - c. 10-14 years
 - d. 15 years or more
4. What was your PRIMARY motivation to acquire the CSCS credential?
 - a. To increase my salary
 - b. To gain more respect from my peers
 - c. The desire to provide higher quality of care
 - d. To further increase my knowledge base
 - e. Other... please specify

Please rate how strongly you agree or disagree with the following statements.

Scoring:

- 1- Strongly disagree
 - 2- Disagree
 - 3- Neither agree nor disagree
 - 4- Agree
 - 5- Strongly agree
5. I have continued to provide services to my clients following their discharge from physical therapy.
 6. I have gained more respect from medical doctors after attaining the CSCS credential.
 7. I have gained more respect from other therapists after attaining the CSCS credential.
 8. If I had the opportunity to go back in time, I would still attain the CSCS credential.
 9. My CSCS credential has allowed me to attain a higher salary.
 10. My CSCS credential has led to new opportunities in my practice.
 11. I have been promoted because of my CSCS credential.
 12. Having the CSCS credential has made me a better clinician.
 13. Having the CSCS credential has allowed me to provide better care to my patients.
 14. Knowledge gained from the CSCS credential is used regularly in my practice.