

National Collegiate Athletic Association Athletic Trainers', Head Coaches', and Student-Athletes' Perceptions of Professional Titles Used in Sport Psychology

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The purpose of this convergent mixed-methods study was to explore National Collegiate Athletic Association (NCAA) Division I athletic trainer (AT), head coach, and student-athlete perceptions of three commonly used sport psychology professional titles in the United States: Certified Mental Performance Consultant (CMPC), mental conditioning coach, and sport psychologist. Participants included 73 ATs, 79 head coaches, and 76 student-athletes. Participants completed an online questionnaire that assessed their previous exposure to these professionals, the services they believed these professionals could provide, their confidence in sport psychology consultation from these professionals, and their stigma tolerance of these professionals. A series of Friedman tests found that ATs and student-athletes perceived significantly more confidence in the services of a sport psychologist compared to a CMPC and a mental conditioning coach. A series of Kruskal-Wallis tests revealed that student-athletes perceived significantly more stigma in using services from all three professionals than head coaches and ATs. Participants reported that sport psychologists could provide mental performance and mental health services, while CMPCs and mental conditioning coaches primarily provided mental performance services. However, short answer responses from many ATs and head coaches about CMPCs demonstrated some doubt and misunderstanding of this professional title.

Keywords: certified mental performance consultant, sport psychology service provision, consumer perceptions, consumer attitudes, professional identity

Sport psychology is an interdisciplinary field that combines aspects of psychology, counseling, and traditional kinesiology (Williams & Krane, 2021). This combination produces a unique skill set that is hard to define with a single, universal title. Therefore, it makes sense that a wide variety of professional titles have been utilized by practitioners throughout the history of sport psychology (Aoyagi et al., 2012). In the United States, "sport psychologist" has historically been a commonly used professional title by sport psychology professionals (Aoyagi et al., 2012). However, in most of the United States, the terms "psychologist" and "psychology"

have received legal protection (Association of State and Provincial Psychology Boards, 2018). Specifically, this protection means that, to use "psychologist" or "psychology" in a professional title, one must have completed graduate training (usually a doctorate) through an American Psychological Association (APA) clinical or counseling psychology program and obtain state licensure (Association of State and Provincial Psychology Boards, 2018). While there is no specific requirement needed to insert "sport" into a professional title, the APA Division 47 (i.e., Society for Sport, Exercise, and Performance Psychology) has outlined a "sport psychology proficiency" (APA Divisions, 2012). Specifically, the sport psychology proficiency statement notes that "the proficiency should not be confused with the doctoral degree area of sport psychology, which has a long tradition within departments of sports science and kinesiology" (APA Divisions, 2012, para. 2). In essence,

RECEIVED: October 26, 2023

ACCEPTED: June 3, 2024

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this statement recognizes that mental health and mental performance are distinct, but equally important, areas of specialization.

In line with this distinction, a variety of professional titles are currently used that differentiate between professionals' educational background and breadth of potential services (Aoyagi et al., 2012). Theoretically, a "sport psychologist" has expertise in mental performance and clinical mental health, as it pertains to sport or performance contexts. Conversely, a professional may solely focus on mental performance, and it is primarily among this group that a wide array of professional titles is used (Jones et al., 2022). Currently, there is limited research regarding how sport psychology's primary consumers feel about the different professional titles that are used in the field (see Woolway & Harwood, 2020). Such perceptions are important to understand because one's professional title is an important consideration of sport psychology consumers when they are determining what type of service they would like to utilize (Woolway & Harwood, 2015).

In the seminal study regarding professional titles in sport psychology, Van Raalte et al. (1990) surveyed 200 American undergraduate students regarding how similar they thought sport psychologists and performance consultants were to other professionals in sport (e.g., coaches) and mental health (e.g., psychiatrists). These authors found that participants perceived a sport psychologist to have a similar professional focus as a counselor. This also meant that participants felt that sport psychologists were more like non-sport professionals (i.e., counselors, hypnotists) than those in sport (i.e., coaches, strength coaches). The authors suggested that the term "psychologist" being in the title may have overpowered the sport association that the term clearly holds. Contrary to this, participants felt that a performance consultant was a unique title that had equal focus on the mental and physical aspects of a client and was very sport-related.

Different results were found in subsequent studies that analyzed the same professional titles but utilized either attendees at the Association for Applied Sport Psychology (AASP) annual conference (Van Raalte et al., 1993) or British athletes (Brooks & Bull, 1999; Van Raalte et al., 1996) as participants. In these studies, a sport psychologist was believed to be a unique, sport-focused professional who had equal expertise in sport, physical, and mental performance. On the other hand, these populations considered a performance consultant to be more akin to a coach and have less expertise in the mental aspects of a client than a sport psychologist. It is

important to consider that, at the time these studies were conducted, the title "sport psychologist" was used by most sport psychology practitioners, regardless of their previous education and training (Aoyagi et al., 2012). Since these studies surveyed sport-based populations, the familiarity and exposure to "sport psychologists" may have distorted how "performance consultants" were viewed compared to the participants in Van Raalte et al. (1990).

These early studies provide evidence that there are important differences in how professional titles in sport psychology are perceived by potential consumers. That said, these early studies did not include direct comparisons regarding which professional a consumer would prefer to utilize. Maniar et al. (2001) expanded on previous research by asking 60 American collegiate student-athletes which professional they would prefer to work with in three different situations (i.e., slump, injury, and optimal). In all three conditions, participants preferred to work with someone who had "sport" in their title compared to someone who did not (e.g., sport psychologist vs. clinical psychologist, sport counselor vs. counselor). Like previous research (Brooks & Bull, 1999; Van Raalte et al., 1996), this result shows that "sport" is an important component of a professional title that can shift consumer perceptions.

Additionally, Maniar et al. (2001) found that under all three conditions, male student-athletes preferred to utilize a performance enhancement specialist, whereas female student-athletes preferred to work with a sport psychologist when in a slump or injured. This particular result may reflect the trend of female athletes being more willing to seek out and accept mental health support than male athletes (Martin, 2005). However, it should be noted that under all conditions, both the male and female student-athletes in this study had a higher preference to consult with a coach or friends/family instead of a performance enhancement specialist or sport psychologist. Maniar et al. (2001) do not fully comment on this result, but this may have indicated an overall hesitation by these student-athletes about receiving psychological services.

In a more recent study conducted by Woolway and Harwood (2015), an international group of athletes (e.g., elite international, national level, district level) were asked to indicate which professional they would prefer to utilize for sport psychology services based on the professional's title, interpersonal skills, athletic background, and sport-specific knowledge. This study was unique in that the researchers provided an educational intervention in which participants

were given information regarding the protected status of the professional title and the training that each professional is expected to receive. Prior to the educational intervention, professional title was the third most preferred attribute behind interpersonal skills and sport-specific knowledge. However, after the intervention, professional title was reported as the most important attribute by a significant margin. These results suggest that a professional title is a clear indicator of a professional's competencies if the consumer has some understanding of what the professional title entails.

The current body of research suggests that, in the sport psychology field, a professional title can emit one's professional competencies, and it can also instill varying levels of perceived confidence or stigma in the consumer. These two variables (i.e., confidence and stigma) are particularly important to understand for specific professional titles in sport psychology, as previous research has found that these perceptions influence potential consumers' intent to use psychological services (Hilliard et al., 2022; Zakrajsek et al., 2011; Zakrajsek et al., 2023). However, the world of sport psychology has evolved significantly over the past few decades, and, besides the work of Woolway and Harwood (2015), there has been a lack of research surrounding professional titles in sport psychology. AASP is one of the most prominent professional organizations dedicated to sport psychology in North America. In 2017, AASP revised its certification procedures and, with this, changed its proprietary professional title from "Certified Consultant – AASP" to "Certified Mental Performance Consultant" (CMPC; AASP, 2017). Currently, there is no empirical evidence regarding consumer perceptions of the CMPC as a professional title and how these compare to perceptions of other commonly used professional titles in sport psychology (e.g., "sport psychologist," "mental conditioning coach").

Although research regarding which professional titles sport psychology professionals regularly use is lacking, Jones et al. (2022) recently conducted a content analysis of National Collegiate Athletic Association Division I (NCAA DI) athletic department websites. These authors found that variations of "sport psychologist" and "mental performance consultant" were regularly used to identify mental health and mental performance staff, respectively. On the other hand, "mental conditioning coach" is the nomenclature that has been used by IMG Academy, a sport performance-focused college preparatory school that has several sport psychology professionals on staff (Hamilton & Stutzman, 2017; IMG Academy, 2022). It should be noted that these professional titles are not necessarily mutually exclusive.

For example, someone whose professional title is "sport psychologist" can also have the CMPC credential. However, CMPC is also used as a professional title on its own.

Moreover, much of the research surrounding professional titles in sport psychology has focused on athletes' perceptions (e.g., Brooks & Bull, 1999). Although athletes are the traditional beneficiaries of sport psychology services, the perspectives of other sport-related professionals should also be considered (e.g., athletic trainers [ATs], coaches). The reason for this is twofold. First, it is often these trusted professionals who will initiate the contact between a sport psychology professional and an athlete (Haltermann et al., 2020; Zakrajsek et al., 2018). Furthermore, there is evidence that non-athletes, including ATs and coaches, can also utilize sport psychology services and receive many of the same benefits that athletes do (Bianco, 2022; Sheehy et al., 2019).

In summation, previous research regarding professional titles provides limited information about contemporary titles and the perspectives of non-athlete consumers. Therefore, the purpose of the present study was to explore ATs', coaches', and student-athletes' perceptions of three commonly used professional titles in sport psychology: CMPC, mental conditioning coach, and sport psychologist. Because this topic has a limited body of previous research, a mixed methods design was adopted to offer rich insight and capture diverse information that can be used to guide future research (Creswell, 2014; Ryba et al., 2022). Specifically, this study was guided by a quantitative (i.e., how do consumer perceptions differ based on the sport psychology professional's title and the consumer's own role?) and a qualitative research question (i.e., what services do consumers believe that sport psychology professionals with different titles can provide?).

Method

Participants

In total, 73 NCAA DI ATs, 79 NCAA DI head coaches, and 76 NCAA DI student-athletes completed the first portion of the study and were included in some of the analyses. However, only 56 ATs (76%), 52 head coaches (66%), and 56 student-athletes (74%) completed the study in its entirety. We selected the NCAA DI setting (specifically the Football Bowl Subdivision) for this investigation because it represents an elite level of sport that more commonly incorporates sport psychology services than other collegiate levels (Jones et al., 2022; Menaker et al., 2023).

Athletic Trainers

Twenty-one ATs identified as male, 34 identified as female, and one preferred not to answer. ATs' racial demographics were as follows: 43 White, five Latino/a, three Black, two multiracial, one Asian/Pacific-Islander. Two ATs preferred not to answer this question. These ATs averaged 34.34 ($SD = 11.12$) years of age and 9.90 ($SD = 9.19$) years of experience in the NCAA DI environment. The majority (51.8%) of participants identified as an assistant AT. All ATs were certified by the National Athletic Trainers' Association (NATA). ATs in this study identified 20 different "primary sports" that they worked with. The top three sports were American football, track & field/cross-country, and baseball.

Head Coaches

Twenty-three head coaches identified as male, 27 identified as female, and two preferred not to answer. Head coaches' racial demographics were as follows: 39 White, three Black, two multiracial, two Asian/Pacific-Islander, one Middle Eastern. Five head coaches preferred not to answer this question. The head coaches averaged 48.20 ($SD = 9.14$) years of age and 21.09 ($SD = 10.13$) years of experience in the NCAA DI environment. Participants coached 24 different sports. The top three sports were softball, track & field/cross-country, and volleyball.

Student-Athletes

Eighteen student-athletes identified as male, and 38 identified as female. Student-athletes' racial demographics were as follows: 45 White, three Black, four Asian/Pacific-Islander, two Latino/a, and two multiracial. These student-athletes averaged 20.30 ($SD = 1.28$) years of age and 2.68 ($SD = 1.6$) years of experience in the NCAA DI environment. Nine students were freshmen, 16 were sophomores, 12 were juniors, 18 were seniors, and one was a post-graduate. The student-athletes in this study participated in 19 different sports. The top three sports were track & field/cross-country, swimming & diving, and American football.

Procedures

Following institutional review board approval, we invited potential participants to participate in this project via email between January and March of 2021. We collected emails for ATs and head coaches from the publicly available athletic department websites of 130 NCAA DI FBS universities. To keep the three population groups similar in number, we only recruited student-athletes from two of the universities associated with

the researchers and 12 other randomly selected institutions. All universities that had a publicly available student-athlete database were assigned a number. A random number generator was then used to select which institutions would be included. This process was counterbalanced to ensure that student-athletes from all 10 NCAA DI FBS conferences were recruited for this investigation. Once the universities were selected, we contacted student-athletes in one of two ways. Either permission was given from an official within the athletic department (e.g., assistant athletic director), or an email database was created by visiting publicly available student email databases.

The first author sent recruitment emails to 1,850 ATs, 2,061 head coaches, and 3,446 student-athletes. To increase participation, we sent two follow-up emails to all potential participants one week apart from each other. Overall, ATs and head coaches responded at a rate of 3.9% and 3.8%, respectively. At two universities, recruitment emails were forwarded to student-athletes from an athletic department official. It is unclear exactly how many additional student-athletes were recruited from these two institutions, making it difficult to calculate an exact response rate for this participant subgroup; however, it is likely similar to that of ATs and head coaches. Each email contained an explanation of the study, expressed the voluntary nature of participation, and included a link to a survey that took participants roughly 15 minutes to complete.

Convergent Mixed-Methods Design

After indicating consent to participate, the participants completed a Qualtrics survey that included both short answer and quantitative questions. While each stream of data was primarily used to address a specific research question, all data was interpreted simultaneously to better understand the topic of interest (i.e., professional titles in sport psychology). Therefore, the current study employed a convergent mixed-methods approach, meaning that both data types were collected at the same time point and "converged" to provide a more thorough understanding of a topic (Creswell, 2014). A mixed-methods approach was adopted to provide a more comprehensive and nuanced understanding of an understudied topic (Creswell, 2014; Ryba et al., 2022).

Instrumentation

We first presented participants with three open-ended questions in a randomized order. These questions were used to better understand what services they felt someone with each professional title could provide.

Specifically, each question read, “When you hear the title (insert title), what services do you think they can provide?”

Next, we provided participants with the following brief definitions of each professional title:

- *Certified Mental Performance Consultant*. Trained in sport psychology. Provide individual or group consultations geared towards sport performance-related issues.
- *Mental Conditioning Coach*. Trained in sport psychology. Provide individual or group consultations geared towards sport performance-related issues.
- *Sport Psychologist*. Trained in clinical or counseling psychology. Provide individual or group therapy relative to a broad range of behavioral and emotional issues (e.g., depression, eating disorders, anxiety disorders). Can also provide individual or group consultations geared towards sport performance-related issues.

These definitions were specifically developed for this study and are less detailed than those found in Woolway and Harwood (2015) because the purpose of the current investigation was to gauge the immediate perceptions of each professional title itself. Thus, there was no need to provide additional background information (e.g., level of education), which may have altered participants’ perceptions.

After reviewing these definitions, participants completed three variations of the confidence in sport psychology consultation and stigma tolerance subscales of either the Sport Psychology Attitudes – Revised (SPA-R; Martin et al., 2002) or the Sport Psychology Attitudes Revised Coaches – 2 (SPARC-2; Zakrajsek et al., 2008). Each variation replaced “sport psychology consultant” with either “certified mental performance consultant,” “mental conditioning coach,” or “sport psychologist.” The Qualtrics survey presented these scales to participants in a randomized order.

Specifically, student-athletes completed the SPA-R, while coaches completed the SPARC-2. ATs were shown a slightly modified version of the SPARC-2 in which the wording of some questions was altered to better reflect their role. For example, the question “I think a certified mental performance consultant would help my athletes perform better under pressure” was changed to “I think a certified mental performance consultant would help athletes cope with pressure during injury rehabilitation.”

The confidence in sport psychology consultation (e.g., “A sport psychology consultant would help me perform better under pressure”) and stigma tolerance (e.g.,

“I feel uneasy going to a sport psychology consultant because people would disapprove”) subscales of the SPA-R and SPARC-2 are eight and seven questions long, respectively. Each question is measured via a Likert-type scale that ranges from 1 (*Strongly disagree*) to 6 (*Strongly agree*). Martin et al. (2002) reported initial Cronbach’s alpha values of .84 for the confidence in sport psychology consultation subscale and .82 for the stigma tolerance subscale of the SPA-R. Zakrajsek et al. (2008) found similar Cronbach’s alphas of .87 and .90 for these two subscales in the SPARC-2, respectively.

Following completion of these scales, participants answered questions about their previous exposure to sport psychology. Specifically, ATs, coaches, and student-athletes were asked if they had ever worked with a CMPC, a mental conditioning coach, or a sport psychologist. If participants indicated that they had worked with one of these professionals, they rated this experience using a five-point Likert-type scale that ranged from 1 (*Very negative*) to 5 (*Very positive*).

Lastly, participants answered basic demographic questions regarding constructs such as age, gender, race, primary sport, level of experience. All participants had the opportunity to provide their email address to be entered into a raffle for one of fifty \$10 Amazon gift cards. Fifteen ATs, 15 head coaches, and 20 student-athletes were randomly selected to receive compensation. Funding for this study was provided by an AASP – Foundation research seed grant.

Data Analysis

All data was imported into IBM Statistical Package for the Social Sciences (SPSS) v.26 and reviewed for missing and invalid responses. Seventeen ATs, 27 head coaches, and 20 student-athletes completed the initial open-ended questions but did not continue to the rest of the survey. Therefore, demographic information, SPARC-2 or SPA-R, and sport psychology exposure data was not collected for these 64 participants. However, their responses were included in the qualitative analysis. Outside of these 64 participants, only one AT and one student-athlete had data missing from SPARC-2 and SPA-R, respectively. These two participants were excluded from subsequent quantitative analyses pertaining to these scales in a listwise manner.

Quantitative Analyses

We first interpreted demographic information, including previous sport psychology exposure, using basic summary statistics. Table 1 shows SPA-R and SPARC-2 descriptive statistics and Cronbach’s alpha values. It must be noted that the alpha value for ATs’

stigma tolerance of sport psychologists was quite low (.55) compared to the other 17 values. While this is not optimal, this alpha value has previously been deemed “sufficient” for analysis (Taber, 2018, p. 1278).

Next, we performed measurement invariance testing to confirm that results from the SPA-R, the SPARC-2, and the modified SPARC-2 for ATs could be compared across groups. We explored configural, metric, scalar, and partial scalar invariance between the three population groups using the R package, ‘lavaan’ (Rosseel, 2012; see Table 2). The results of invariance testing revealed that

all configural, metric, and partial scalar models had an acceptable fit (i.e., robust comparative fit index > .95; Hu & Bentler, 1999). Furthermore, results confirmed that no metric or partial scalar models had a significantly different chi-square from their corresponding configural model (Putnick & Bornstein, 2016). Because measurement invariance was established, between-subjects analysis of the latent variables of each scale measured (i.e., confidence in sport psychology consultation and stigma tolerance) was appropriate (Putnick & Bornstein, 2016).

Table 1. SPAR-C and SPA-R Descriptive Statistics

Subscale	Athletic Trainer	Head Coach	Student-Athlete
	<i>M (SD)</i>		
Confidence: CMPC	3.93 (.86)	4.60 (.93)	4.24 (.90)
Confidence: MCC	3.83 (.99)	4.52 (1.10)	4.41 (.93)
Confidence: SP	4.92 (.72)	4.86 (.96)	4.80 (.83)
Stigma: CMPC	1.56 (.62)	1.32 (.62)	2.21 (.95)
Stigma: MCC	1.53 (.64)	1.30 (.60)	2.22 (1.10)
Stigma: SP	1.27 (.38)	1.20 (.46)	2.19 (1.06)
Cronbach's Alpha	α		
Confidence: CMPC	.88	.90	.88
Confidence: MCC	.90	.92	.90
Confidence: SP	.81	.89	.85
Stigma: CMPC	.82	.88	.87
Stigma: MCC	.86	.92	.90
Stigma: SP	.55	.88	.88

Note. CMPC = Certified Mental Performance Consultant; MCC = Mental conditioning coach; SP = Sport psychologist.

Table 2. Measurement Invariance Models

Model	χ^2 (df)	CFI	RMSEA	SRMR	Model Comp.	$\Delta\chi^2$ (df)
CMPC Scale						
Configural (M1)	184.88 (267)	.96	.07	.09	-	-
Metric (M2)	248.32 (293)	.96	.07	.11	M1	31.36 (26)
Scalar (M3)	297.95 (319)	.94	.08	.12	M2	78.21 (26)*
Partial Scalar (M3a)	253.62 (311)	.96	.07	.11	M2	11.58 (18)
MCC Scale						
Configural (M1)	143.89 (267)	.98	.05	.09	-	-
Metric (M2)	196.10 (293)	.98	.05	.11	M1	32.80 (26)
Scalar (M3)	228.25 (319)	.96	.06	.11	M2	61.29 (26)*
Partial Scalar (M3a)	201.66 (311)	.97	.06	.11	M2	12.97 (18)
SP Scale						
Configural (M1)	154.86 (267)	.97	.05	.11	-	-
Metric (M2)	187.75 (293)	.98	.04	.12	M1	21.59 (26)
Scalar (M3)	247.26 (319)	.94	.06	.13	M2	92.47 (26)*
Partial Scalar (M3a)	199.56 (309)	.97	.04	.12	M2	19.56 (16)

Note. CMPC = Certified Mental Performance Consultant; MCC = Mental conditioning coach; SP = Sport psychologist; CFI = comparative fit index (robust); RMSEA = root mean square error of approximation (robust); SRMR = standardized root mean squared residual; $\Delta\chi^2$ = chi-square difference test; p = probability value of chi-square difference test. *p < .05.

Due to the non-normal structure of the data, we used non-parametric tests to analyze SPA-R and SPARC-2 responses. To analyze within-subjects differences regarding confidence in and stigma tolerance of sport psychology services from the three providers, we used Friedman tests. Additionally, we used Kruskal-Wallis H tests to explore between-subjects differences regarding confidence in and stigma tolerance of sport psychology services from the three providers. For all tests, we analyzed pairwise comparisons post-hoc and interpreted them using a Bonferroni correction.

Qualitative Analyses

We analyzed the qualitative data through general inductive analysis. The purpose of a general inductive approach is to develop frequent, dominant, or significant themes from raw data (Thomas, 2006). Two researchers (the second and third authors) performed close readings of the text to become familiar with the content and gain a general understanding of potential themes. Then, the researchers engaged in independent parallel coding to confirm consistency (Thomas, 2006). That is, the two coders independently developed themes from the raw data. These two sets of themes were then compared to one another to identify consistencies between them. The researchers then reduced the overlapping themes among the categories by considering how one segment of the text may be coded into more than one category and how some text may not be relevant to the theme of interest. Both researchers revised and refined the themes until they were agreed upon.

Results

Exposure to Sport Psychology Professionals

Athletic Trainers

Out of 56 ATs, 11 (19.6%) reported that they had previously worked with a CMPC. Of these, eight (72.7%) indicated that their interaction was either positive or very positive. Seven ATs (12.5%) noted that they had previously worked with a mental conditioning coach, with three ATs (42.8%) reporting that this experience was either positive or very positive. Finally, 52 ATs (93%) reported that they had previously worked with a sport psychologist. Fifty (96%) of these ATs found this experience to be either positive or very positive.

Head Coaches

Out of 52 head coaches, 11 (20%) reported that they had previously worked with a CMPC, of which

eight (72.7%) indicated that this experience was either positive or very positive. Thirteen head coaches (25%) had previously worked with a mental conditioning coach. Ten (33.3%) of these head coaches reported that this interaction was either positive or very positive. Finally, 49 head coaches (94.2%) noted that they had previously worked with a sport psychologist. Forty-one (83.6%) of these coaches found this experience to either be positive or very positive.

Student-Athletes

Out of 56 student-athletes, three (5.4%) reported that they had previously worked with a CMPC. All three (100%) of these student-athletes found the experience to be either positive or very positive. Six student-athletes (10.7%) reported that they had previously worked with a mental conditioning coach, of which five (83.3%) felt the experience was either positive or very positive. Finally, 42 (75%) of the student-athletes indicated that they had previously worked with a sport psychologist. Forty-one (97.6%) of these student-athletes noted that this experience was either positive or very positive.

Confidence in Sport Psychology Consultation

A Friedman test revealed that ATs, $\chi^2(2) = 59.41$, $p < .001$, head coaches, $\chi^2(2) = 7.86$, $p = .02$, and student-athletes, $\chi^2(2) = 25.08$, $p < .001$, all had significantly different perceived confidence in sport psychology consultation from the three types of sport psychology professionals. Wilcoxon signed-rank tests (see Table 3) showed that ATs and student-athletes both had significantly more confidence in sport psychology consultation from a sport psychologist than from a CMPC or a mental conditioning coach. Even though there was a significant omnibus test for head coaches, post-hoc tests did not reveal any specific differences based on professional title among this participant subgroup.

Three separate Kruskal-Wallis H tests demonstrated that there were significant differences between participants' perceived confidence in sport psychology consultation from a CMPC, $H(2) = 14.26$, $p < .001$, and from a mental conditioning coach, $H(2) = 15.33$, $p < .001$. However, there was no significant difference between participants' perceived confidence in sport psychology consultation from a sport psychologist, $H(2) = 1.126$, $p = .549$. Dunn's tests (see Table 4) showed that, compared to head coaches, ATs had significantly lower confidence in sport psychology consultation from a CMPC. Additionally, compared to both head coaches and student-athletes, ATs had significantly lower confidence in sport psychology consultation from a mental conditioning coach.

Stigma Tolerance

A Friedman test revealed that ATs had significantly different stigma tolerance of the three sport psychology professionals, $\chi^2(2) = 15.58, p < .001$. Neither head coaches, $\chi^2(2) = 5.07, p = .079$, nor student-athletes, $\chi^2(2) = 1.74, p = .419$, had significantly different stigma tolerance of the three sport psychology providers. Wilcoxon signed-rank tests (see Table 5) showed that ATs perceived significantly less stigma in services from a sport psychologist than from a CMPC or mental conditioning coach.

Three separate Kruskal-Wallis H tests demonstrated that there were significant differences between participants stigma tolerance of a CMPC, $H(2) = 35.45, p < .001$, a mental conditioning coach, $H(2) = 32.56, p < .001$, and a sport psychologist, $H(2) = 51.06, p < .001$. Dunn's tests (see Table 6) showed that compared to head coaches, ATs perceived significantly more stigma

in services from a CMPC. Furthermore, compared to ATs and head coaches, student-athletes perceived significantly more stigma in services from all three sport psychology providers.

Open-Ended Results

Seventy-three ATs, 79 head coaches, and 76 student-athletes responded to the open-ended questions. Overall, participants believed that sport psychology professionals with different titles could provide similar services within the sport context but under different constraints. For example, participants felt that sport psychologists could provide athletes with mental health services, whereas CMPCs and mental conditioning coaches could not. Yet, participants were often unsure of or incorrect about the qualification requirements for CMPCs and mental conditioning coaches. Full results of the general inductive analysis are presented below.

Table 3. Rank Comparisons of AT, Head Coach, and Student-Athlete Confidence in Sport Psychology Consultation (Within-subjects)

Professional Title	Athletic Trainer	Head Coach	Student-Athlete
	Mean Rank		
CMPC	1.65	1.84	1.63
MCC	1.55	1.87	1.87
SP	2.79	2.30	2.51
Post-Hoc Analyses	Effect Size		
CMPC vs. MCC	.04	.01	.12
CMPC vs. SP	.57**	.23	.44**
MCC vs. SP	.62**	.21	.32**

Note. CMPC = Certified Mental Performance Consultant; MCC = Mental conditioning coach; SP = Sport psychologist. * $p < .05$; ** $p < .01$.

Table 4. Rank Comparisons of AT, Head Coach, and Student-Athlete Confidence in Sport Psychology Consultation (Between-subjects)

Sport Role	Certified Mental Performance Consultant	Mental Conditioning Coach	Sport Psychologist
	Mean Rank		
Athletic Trainer	67.04	62.95	84.84
Head Coach	101.35	97.08	85.83
Student-Athlete	80.46	88.52	77.07
Post-Hoc Analyses	Effect Size		
AT vs. HC	.36**	.35**	.03
AT vs. SA	.14	.26*	.08
SA vs. HC	.21	.09	.08

Note. AT = Athletic Trainer; HC = Head Coach; SA = Student-athlete. * $p < .05$; ** $p < .01$.

Certified Mental Performance Consultant (CMPC)

Mental Training Services. Many of the ATs, head coaches, and student-athletes noted that a CMPC helps athletes engage with mental skills training ($n = 144$, 63.16%). One student-athlete described a CMPC as, “A consultant who has the ability to help individuals with their mental state during a performance - such as learning how to not get nervous under pressure, not overthink during a competition, etc.”

Unsure of Services Provided. Several ATs and head coaches were unsure of what services a CMPC provides and questioned the validity of their certification ($n = 51$, 22.37%). One AT stated: “I have no idea what this title means. It is another made-up title. Certified in what? A weekend course? I would look into it more.” Similarly, a head coach responded, “Who is certifying them? I don’t know what they might provide. I suppose this person is trying to identify lapses in mental performance.”

Clinical Mental Health Services. A few ATs, head coaches, and student-athletes interpreted a CMPC’s responsibilities as providing clinical counseling services ($n = 14$, 6.14%). For example, one student-athlete defined a CMPC as “Someone who provides an athlete with mental help when they’re struggling with anxiety, depression, or some mental illness that may affect their ability to perform.” A few other participants viewed CMPCs to have the same role as sport psychologists ($n = 6$, 2.63%). Two head coaches noted that a CMPC’s role was “The same as a sport psychologist.”

Life Skills Services. Some of the head coaches and student-athletes noted that a CMPC may provide mental skills resources to an athlete that may enhance their life beyond sport ($n = 20$, 8.77%). For example, one student-athlete stated, “I would think they treat the whole person, not just the athlete. They will give you techniques for your athletic performance, but also focus on how to better your mentality throughout your whole life.”

Table 5. Rank Comparisons of AT, Head Coach, and Student-Athlete Stigma Tolerance in Sport Psychology Consultation (Within-subjects)

Professional Title	Athletic Trainer	Head Coach	Student-Athlete
	<i>Mean Rank</i>		
CMPC	2.21	2.15	2.05
MCC	2.14	1.99	2.07
SP	1.65	1.86	1.88
Post-Hoc Analyses	<i>Effect Size</i>		
CMPC vs. MCC	.03	.08	.01
CMPC vs. SP	.27**	.14	.09
MCC vs. SP	.24*	.06	.10

Note. CMPC = Certified Mental Performance Consultant; MCC = Mental conditioning coach; SP = Sport psychologist. * $p < .05$; ** $p < .01$.

Table 6. Rank Comparisons of AT, Head Coach, and Student-Athlete Stigma Tolerance in Sport Psychology Consultation (Between-subjects)

Sport Role	Certified Mental Performance Consultant	Mental Conditioning Coach	Sport Psychologist
	<i>Mean Rank</i>		
Athletic Trainer	78.89	78.56	71.88
Head Coach	56.99	58.73	57.01
Student-Athlete	109.79	108.51	116.79
Post-Hoc Analyses	<i>Effect Size</i>		
AT vs. HC	.23*	.21	.16
AT vs. SA	.56**	.54**	.65**
HC vs. SA	.33**	.32**	.49**

Note. AT = Athletic Trainer; HC = Head Coach; SA = Student-athlete. * $p < .05$; ** $p < .01$.

Mental Conditioning Coach

Mental Training Services. Many ATs, head coaches, and student-athletes noted that a mental conditioning coach can enhance athletes' mental performance ($n = 158$, 69.30%). One AT stated, "Mental Conditioning Coaches assist student-athletes in identifying how psychological factors may affect performance and how participation in sport and exercise affect psychological and physical factors . . . [and] how to deal with these factors."

Questions of Perceived Competency. Many participants were unsure of mental conditioning coaches' responsibilities, qualifications, and credibility ($n = 42$, 18.42%). For example, an AT stated that the title of mental conditioning coach "sounds made up." Another AT perceived mental conditioning as "Unlicensed, non-professional, and not true services. More likely to do be anything along the lines of self-help guru to Navy SEAL-wannabe-like activities or exercises." Furthermore, a head coach stated that a mental conditioning coach was "Someone who's trying to make money by claiming to be able to help people perform better!"

Strength and Conditioning Services. Additionally, some ATs, head coaches, and student-athletes perceived mental conditioning coaches had similar responsibilities as strength and conditioning coaches ($n = 11$, 4.82%). One AT described a mental conditioning coach as "a strength coach who also include [sic] 'mental work' during their strengthening/lift sessions." Additionally, some head coaches perceived mental conditioning coaches to help athletes with "weight training."

Clinical Mental Health Services. A few ATs and student-athletes believed that mental conditioning coaches provided clinical mental health services to athletes ($n = 10$, 4.39%). One student-athlete noted that mental conditioning coaches "aid student-athletes in digesting their thoughts/compartmentalizing their sport." Another student-athlete believed mental conditioning coaches to provide "psychological help" to athletes. Furthermore, one AT noted that mental conditioning coaches "help with disorders such as OCD, etc." and are "not sport specific."

Sport Psychologist

Clinical Mental Health and Mental Performance Services. The responses from most ATs, head coaches, and student-athletes expressed that a sport psychologist can provide either mental health or mental performance services ($n = 192$, 84.21%). However, several participants

specifically reported that this professional could provide athletes with both mental performance and mental health services ($n = 45$, 19.74%). One student-athlete reported the following:

If I was to use one of these titles, it would likely be sport psych[ologist] because they focus on the whole person and might connect my performance struggles with something going on in a different part of my life (anxiety, etc.).

A head coach similarly noted that a sport psychologist's role is "sometimes just listening and being a safe place an athlete can come to and discuss whatever might be causing issues in their life." Additionally, an AT said, "I would like this to mean full psychological services including anxiety/depression and other mental health disorders as well as sport performance."

Credibility of Perceived Training. Many ATs, head coaches, and student-athletes recognized that a sport psychologist must have a high level of training and some sort of licensure ($n = 30$, 13.16%). One head coach described a sport psychologist as the following:

Someone licensed in practicing psychology that can help players get out of their own way of being great. Person holds a PhD in their respective field. Using a blend of cognitive and behavioral techniques to improve overall performance through helping the athlete strengthening their mental approach. Can also help identify larger underlying issues that could be holding an athlete from reaching their fullest potential.

Additionally, student-athletes reported that they viewed a sport psychologist as more trustworthy due to their training and qualifications. One athlete compared their perceptions of training across the three titles:

A sports psychologist and certified mental performance consultant seem like they have gone through more professional training. Additionally, a sports psychologist seems trustworthy, as they have taken training and education in helping those with mental disorders and are very skilled. The job title of 'mental conditioning coach' also does not sound very credible in itself, even though this is most likely not true.

Discussion

The purpose of this study was to explore NCAA DI ATs', head coaches', and student-athletes' perceptions of three professional titles commonly used in sport psychology. Correspondingly, this study was guided by two research questions. The first research question was, how do consumer attitudes toward sport psychology consultation differ based on professional title and their own role (i.e., AT, head coach, or student-athlete)? In

the spirit of mixed-methods research, the results of this investigation were interpreted in a holistic manner that involved equal consideration and integration of the quantitative and qualitative data (Creswell, 2014).

ATs and student-athletes both had significantly more confidence in sport psychology consultation from a sport psychologist compared to a CMPC or a mental conditioning coach. Although head coaches did not demonstrate significance in this area, the post-hoc pairwise comparisons were of moderate effect size. Overall, these populations of potential consumers (i.e., NCAA DI ATs, head coaches, student-athletes) seem to prefer the services of a sport psychologist compared to other professionals. This is in line with the results of Woolway and Harwood (2015), who found that an international group of athletes preferred the services of a sport psychologist compared either to a neuro-linguistic programming practitioner or a life coach.

There are several reasons why participants may have displayed more confidence in a sport psychologist compared to the other professionals. The short answer results support the contention made by previous researchers that sport psychologist is a unique title that emits expertise in both mental performance and mental health (Van Raalte et al., 1990; Van Raalte et al., 1993; Van Raalte et al., 1996). Therefore, it may be that consumers are simply more confident in the services of a professional who they feel can address a wider range of concerns.

However, it is also important to consider that trust in a sport psychology professional is an important antecedent of sport psychology service use, and having regular exposure to sport psychology and sport psychology professionals may enhance this sense of trust (Zakrajsek et al., 2023). Many more participants in the current investigation reported previously working with a sport psychologist than with a CMPC or mental conditioning coach. This result is not particularly surprising since most (76.8%) professionals working full-time within NCAA DI athletic have a license, either providing both mental performance and mental health services (56.5%) or solely mental health services (20.2%; Jones et al., 2022). "Sport psychologist" was even one of the titles used by some of the professionals identified as solely providing mental health services. It is likely that more familiarity, exposure to, and experience with professionals who use the title of "sport psychologist" enhances the confidence that a consumer has in the services of others with the same professional title. Additionally, as previously mentioned, in the United States, the term "sport psychologist" has historically

been used to refer to any professional who works in the sport psychology field (Aoyagi et al., 2012). The historical use of this term may have been another factor that enhanced participants' sense of familiarity and trust toward this professional title.

However, it must be noted that although "psychologist" is a legally protected term in most of the United States and several other countries (e.g., Canada), many professionals who do not meet the requisite qualifications or have the appropriate expertise use the title of "sport psychologist" (Aoyagi et al., 2012). Such inappropriate use of the "sport psychologist" title by providers may make this professional seem more commonplace than they truly are. Because a "sport psychologist" appears to be preferred by consumers (Woolway & Harwood, 2015), the oversaturation of this title may artificially reduce consumers' confidence in the services of a CMPC or mental conditioning coach.

This notion is further supported by the short answer results that the participants provided regarding service provision. Many head coaches and ATs provided unprompted doubts surrounding the expertise and competence of someone who used either the CMPC or mental conditioning coach professional titles. Specifically, several participants questioned the legitimacy of the "certified" component of CMPC. Conversely, no such doubts were reported regarding the sport psychologist professional title from ATs, head coaches, or student-athletes. It may be that no doubts were reported regarding the sport psychologist title because of participants' familiarity with these professionals and a general respect for the term "psychologist." However, this result is quite ironic because the full professional title of "sport psychologist" has no standardized obtainment procedures. On the other hand, obtaining the CMPC requires a master's degree in sport psychology (or related field), 400 hours of mentored experience with performance populations, and a certifying examination (AASP, 2024). Unfortunately, participants' short answer responses (particularly those of ATs and head coaches) suggest that many consumers of sport psychology services are not aware of this training.

Despite the fluctuations that were seen regarding participants' confidence in the services of these three professionals, it was promising to see that stigma tolerance for CMPC, mental conditioning coach, and sport psychologist were all quite low. In fact, all nine means for the stigma tolerance subscale scores of the SPA-R and SPARC-2 were below 2.25 out of six on the Likert-type scale. Furthermore, stigma tolerance scores

in the current investigation were lower than those reported in previous research concerning coaches (Zakrajsek et al., 2011) and athletes (Martin et al., 2004; Martin, 2005). This result points to a continued normalization and acceptance of sport psychology and sport psychology practitioners, particularly within NCAA DI settings (Jones et al., 2022; Zakrajsek et al., 2018).

That said, it should still be noted that student-athletes reported significantly more stigma in receiving services from all three sport psychology professionals than head coaches or ATs. This result is interesting to consider in light of previous research, which demonstrated that student-athletes tend to underutilize the psychological resources that are available to them due to perceived stigma (Chow et al., 2020; DeLenardo & Terrion, 2014; Zakrajsek et al., 2023). It is possible that student-athletes do not recognize how confident head coaches and ATs are in sport psychology services and, to a certain extent, worry that the use of sport psychology services indicates “mental weakness” that could result in the loss of playing time or respect from others. Potential miscommunication such as this is why it is essential that all members of athletic organizations openly discuss and normalize the use of sport psychology (Bianco, 2022; Zakrajsek et al., 2018).

The second research question that guided this investigation was, what services do consumers believe that sport psychology providers with these professional titles can provide? Participants had a strong grasp of the general services that these professionals can offer. Specifically, participants correctly recognized that a sport psychologist should have additional training that allows them to help athletes with clinical mental health challenges (e.g., eating disorders, depression) in addition to mental performance challenges.

Conversely, all three populations recognized that a CMPC and a mental conditioning coach were primarily tasked with teaching life skills (e.g., leadership) and strategies that enhance mental performance in sport. This understanding was particularly impressive, considering that most participants reported that they had never worked with a CMPC or mental conditioning coach. In general, it appears that CMPC and mental conditioning coach are effective professional titles when it comes to highlighting the services these individuals can provide.

However, there were some distinctions between these two professionals that demonstrate how important terminology can be. For instance, unlike a CMPC, participants felt that a mental conditioning coach could

also provide services related to physical training (e.g., strength and endurance training). This result is similar to that of Van Raalte et al. (1990), who found that someone titled “coach” was perceived to have expertise in the physical aspects of sport performance. It may be that, for some consumers, the terms “conditioning” and “coach” overpowered the term “mental.”

Practical Implications

The Association for Applied Sport Psychology developed the CMPC to “demonstrate to clients, employers, colleagues, and the public at large that an individual has met the highest standards of professional practice” (AASP, n.d., para. 1). Although it is important to remember that the CMPC is still in its infancy, the misunderstandings regarding the training and services provided by this professional title are important to note. That said, the results of this study do highlight several practical implications surrounding how to both promote the CMPC and strengthen the field of sport psychology. First, AASP should continue developing educational materials on the CMPC and distribute them to other professional organizations such as the NCAA and the National Athletic Trainers’ Association. These materials could include information on certification criteria and how a CMPC can effectively work with and through other professionals (e.g., ATs, head coaches) to support student-athletes and athletic organizations.

Additionally, sport psychology professionals should recognize that consistent use of professional titles can lead to a stronger professional identity, which would help the field thrive (Wagstaff & Quartiroli, 2020). Recently, Jones et al. (2022) found that 32 different professional titles were used by sport psychology professionals working full-time in NCAA DI athletic departments. The use of so many different professional titles may be confusing to potential consumers and interfere with the validity of the field. Moreover, if current and prospective CMPCs want the certification to be as valuable as possible, it is important that CMPC (or at least “mental performance consultant”) is consistently used as a professional title in practice.

Finally, sport psychology professionals should be cognizant that misuse of the term “sport psychologist” may contribute to inaccurate perceptions of other sport psychology professionals (e.g., CMPC). Sport psychology professionals should ensure that their professional title is correct in visible locations such as their offices and university websites. If “sport psychologist” is used inappropriately or unethically, sport psychology professionals should, to the best of

their ability, notify and educate the responsible party (e.g., media organization, employer, consumer). Finally, sport psychology professionals with any title should always explain their role and competencies when working with clients and organizations.

Limitations and Future Research Directions

This study did have certain limitations that can inform future research. First, it is important to consider the response rate of the Qualtrics survey. We expect these poor completion rates were due to recruitment occurring during the COVID-19 pandemic. During this time, many individuals developed “survey fatigue,” which resulted in reduced response rates across many academic fields (de Koning et al., 2021, p. 2). It is also important to consider that the populations included in this study were from a single United States setting which limits the generalizability of the results to other contexts. It is possible that different populations have had different types of exposure to sport psychology and thus have unique perceptions of the professional titles that are used in the field. Future research surrounding professional titles should explore different populations, such as professional athletes, youth sport parents, international settings, and non-sport performers (e.g., military).

Additionally, participants in this study could have previously worked with a CMPC but were unaware because this professional utilized a different title (e.g., mental skills coach). Moreover, the full extent to which the current group of participants previously interacted with the sport psychology providers is unclear. Future studies utilizing qualitative methodology (e.g., ethnography) may provide valuable insight into what exactly these interactions entail. Along these same lines, there is evidence that past sport psychology experience can positively and negatively influence attitudes toward sport psychology, depending on the quality of the interaction (Wrisberg et al., 2009). Unfortunately, due to the small sample size, we were unable to include previous experience as a covariate in the non-parametric tests. Regardless, the current results do provide insight and preliminary data on NCAA DI ATs', head coaches', and student-athletes' perceptions of professionals providing sport psychology services.

Finally, consumer perceptions of professional titles change when they are provided education on the meaning of the title (Woolway & Harwood, 2015). Therefore, an educational intervention similar to that conducted by Woolway and Harwood (2015) should be pursued to determine if consumer perceptions

of CMPC change when they are made aware of the certification criteria.

Conclusion

Professional titles are an important aspect of professional identity and can influence consumer preferences. However, there is limited research surrounding contemporary professional titles in sport psychology. Therefore, the purpose of this study was to explore ATs', head coaches', and student-athletes' perceptions of three commonly used professional titles in sport psychology. NCAA DI ATs and student-athletes reported significantly more confidence in sport psychology consultation from a sport psychologist compared to a CMPC or mental conditioning coach. Additionally, student-athletes perceived significantly more stigma in using the services of all three sport psychology professionals than ATs and head coaches. While participants recognized that CMPCs provide services meant to improve mental performance in sport, head coaches and ATs harbored doubts and misconceptions surrounding the credibility of these professionals. The Association for Applied Sport Psychology should continue its efforts to market the CMPC and educate potential consumers on the certification criteria. Current and prospective CMPCs must also recognize that consistent use of professional titles can help the field of sport psychology thrive.

Author Note

I, the first/corresponding author, and at least one other co-author(s) have financial and/or personal relationships with an individual or entity that could have arguably or perceptively inappropriately influenced the present study. Specifically, all four of the authors are members of the Association for Applied Sport Psychology (AASP). Furthermore, the third and fourth authors are Certified Mental Performance Consultants (CMPCs). Finally, this study was supported by an AASP Foundation Research Seed Grant. Because this study concerns AASP and the CMPC credential, it is important that people who read this manuscript are aware of this.

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