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**Defining Psychosocial Strength and Conditioning Coaching Competencies: A Participatory  
Action Research Approach**

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## ABSTRACT

Strength and conditioning (S&C) practitioners need to know and apply varying and diverse psychosocial competencies in their practice. The definitions of psychosocial coaching competencies are poorly understood and multiple interpretations exist. The purpose of this study was to define psychosocial S&C practice terms (i.e., pedagogical, philosophical, psychological, sociocultural) from the perspectives of S&C researchers and practitioners. Using a participatory action research approach, qualitative data were collected from 13 researchers and 30 stakeholders with the United Kingdom Strength and Conditioning Association (UKSCA). A qualitative summative content analysis was used to analyze the researchers' and UKSCA stakeholders' definitions of psychosocial competencies. Pedagogical competencies were defined related to the themes of instruction, learning, skill acquisition, feedback, and design structure. Philosophical competencies were defined related to themes of beliefs, values, and style. Psychological competencies were defined related to communication, mindset, relationships, motivation, emotions, learning, and behavior. Sociocultural competencies were defined related to sport norms, understanding differences and different backgrounds, adapting to culture, and coaching behavior and biases. Significant differences existed between researchers' and practitioners' definitions of these terms, particularly with pedagogical, philosophical, and sociocultural competencies. Practitioners often associated psychological coaching competencies with subject matter outside of biophysical knowledge or many aspects spanning diverse social and behavioral sciences.

Key Words: pedagogy, philosophy, psychology, sociology, education, action research

## INTRODUCTION

Much of the strength and conditioning (S&C) professional standards and evidence-base is grounded in biology (physiology, nutrition) and physics (biomechanics), however, a growing body of research on practitioner competencies also points to psychosocial knowledge<sup>1</sup>. Indeed, according to the **National Strength & Conditioning Association (NSCA)**, the S&C profession involves knowledge and skills from multiple disciplines or perspectives<sup>2</sup>. Additional support for the importance of developing S&C practitioners' psychosocial competencies is found in recent efforts by the NSCA to highlight the S&C practitioners' role in promoting student-athlete mental health and wellness, and how to prepare practitioners via the Council on Accreditation of Strength and Conditioning Education (CASCE)<sup>1,3</sup>. These concerns are found globally as well in S&C organizations such as the United Kingdom Strength and Conditioning Association (UKSCA), Australian Strength and Conditioning Association (ASCA), **NSCA Foreign Affiliates (e.g., China, Italy, Japan, Korea, Spain) and Chapters (e.g., Germany, India)**, and this cross-cultural expansion presents challenges in shared scientific and applied understanding and communication.

Defining scientific terms is integral to high-functioning interdisciplinary teams and the education of practitioners in sport and exercise science, and scientists continue to call for greater clarity and consistency in their use<sup>4,5</sup>. Scientists have noted how multidisciplinary teams of practitioners (that may include diverse people), for example consisting of a sport coach, S&C coach, nutritionist, and sport psychology consultant, might use a term such as power, to describe different things when working with an athlete, which could create communication problems and other negative outcomes<sup>5</sup>. Cross-culturally, globally, and across the span of science, social-behavioral concepts, such as sex, gender, race, motivation, and instruction, vary in

understanding, definition, and use. While scientists across disciplines operationally define these sorts of terms in their research, it is unknown how varying S&C stakeholders understand or use such terms. In the light of these challenges, there is a growing body of research that elucidates S&C practitioner psychosocial competencies<sup>6-9</sup>.

Psychosocial S&C coaching competencies are the combination of interpersonal and intrapersonal knowledge grouped into four broad areas: pedagogical, philosophical, psychological, and sociocultural<sup>1</sup>. Evidenced in multiple studies, pedagogical definitions, conceptualizations, and meanings vary. In a case study of one S&C coach, Dorgo categorized pedagogical practices as applied practical knowledge of “various beliefs, knowledge types and deliberate practices” (p. 26)<sup>8</sup>. However, in defining coach effectiveness, Gilbert and Baldis saw pedagogical knowledge as a component of coaches’ knowledge and defined it as “strategies used to adapt and apply these [disciplinary] principles and knowledge of the profession” (p. 28)<sup>10</sup>. Yet still, others refer to pedagogical in the sense of signature pedagogies<sup>7</sup>, which is a defining feature of best educating neophytes in any profession. A review of research on S&C coach education concluded that hands-on practical experience, reflective practice, and communities of practice could be considered as signature pedagogies<sup>7</sup>.

Philosophical competencies in S&C have received little attention despite “What is your coaching or training philosophy?” being a frequently asked question in the field<sup>11, 12</sup>. Five conceptualizations of philosophy have been found in the S&C research: system of training, specific method of training, attitude/belief, theory of training, and aim of training<sup>12</sup>. It was argued that these five conceptualizations were better understood as the “how” of a training philosophy, while a practitioner’s coaching philosophy should be understood as the “why” and include values, beliefs, tradition, ideology, and personal preferences<sup>11</sup>. Additional peer-reviewed

sources show researchers and practitioners use the term philosophy in S&C in varying manners, insist on its importance, and acknowledging the lack of resources for S&C practitioners to understand, develop, and critically think about coaching philosophies<sup>11, 13-15</sup>.

It must be noted that psychological S&C practitioner competencies are different from building athletes' or clients' psychological skills, which is often developed by sport psychologists or mental performance coaches. Often labeled the psychology of coaching, psychological practitioner competencies usually refer to the cognitions, emotions, and behaviors of S&C practice related to coach-athlete relationships, skill development, leadership, and management, learning and development, and quality coaching. Research on elite S&C coaches shows that coaches believe psychosocial behaviors contribute to coach effectiveness, including understanding athletes' needs, communicating effectively, caring and connecting with athletes, practicing what you preach, the importance of reflective practice, and the contribution of formal training<sup>16</sup>. In turn, these practices lead to enhancement of athletes' motivation. Athletes also report particular S&C coaches' behaviors and attitudes as effective and desirable, such as an environment of trust, respect, honesty, openness between the coach and athlete<sup>17, 18</sup>. Yet, these research studies neglected to explicitly define psychological competence, but instead **relied** on a selected theoretical framework and body of literature to guide the research design and methods.

While overlapping in some ways with the aforementioned areas, for example by studying values, knowledge, and identity, sociocultural S&C coaching competencies are arguably the most ill-defined<sup>19, 20</sup>. As is done in much psychological research, research on social-psychological topics, such as body image, can mirror the natural sciences using reliable and valid measures to precisely capture phenomenon<sup>21</sup>. However, critical sociocultural approaches critique normative understandings and elucidate taken-for-granted assumptions, unintended

consequences, and embrace complexity and holism over single variate or reductionistic interpretations<sup>22</sup>. Sociocultural S&C research has shown the complex ways women S&C coaches navigate gender<sup>23, 24</sup>, how personal trainers build and transform bodily capital into social and economic capital<sup>25</sup>, and how common S&C practices intersect with issues of discrimination, race, and coercive behavior<sup>26</sup>.

The purpose of this qualitative study is to define psychosocial S&C practice terms (i.e., pedagogical, philosophical, psychological, sociocultural) from the perspectives of S&C researchers and practitioners. As this study was part of an ongoing, grant-funded participatory action research (PAR) project, these findings helped to establish a working lexicon for the researchers and community partner, which is essential for collaborative research<sup>27</sup>. In addition to being the first study of its kind to empirically identify how researchers and practitioners define these terms, which may significantly differ, the findings of this study can be of use to numerous stakeholders who need to communicate and collaborate effectively in their policies, research, or practice. The findings could also identify scientific and practitioner knowledge gaps, which aligns with the NSCA's mission to "bridge the gap" from the scientific laboratory to the field practitioner, and be of value to the education of S&C researchers and practitioners.

## METHODS

### *Research Design*

This study used a qualitative PAR approach with the UKSCA as the partner<sup>27</sup>. PAR is a collaborative approach to applied research that solves a problem or enhances the capacity of the partner. PAR researchers work with the partner via a cyclical process of problem identification, data collection and analysis, and implementing practical solutions. The UKSCA is the leading S&C organization in the UK and its mission is to ensure that they are providing world class

coaching, maintaining and establishing high standards for their coaches, facilities, and athletes of all levels, and promoting S&C coaching so that the industry continues to grow<sup>28</sup>. Both researchers and partner stakeholders participated in developing definitions of S&C psychosocial competencies.

### **Participants**

The study received institutional ethical clearance from Cape Breton University, Canada (Research Ethics File # 2021-119 approved June 25, 2021). In PAR, the researchers and the partner's stakeholders are invited as **participants**<sup>27</sup>. All UKSCA stakeholders (i.e., full- and part-time staff, board of directors) were invited to voluntarily participate. Participating UKSCA stakeholders were informed of the benefits and risks of the investigation prior to providing informed consent. A total of 30 UKSCA stakeholders participated (male = 26, female = 4), which represented over 90% of all UKSCA stakeholders. Stakeholders included tutors and assessors, board members, previous board members who act as external consultants, and members of the equality, diversity and inclusion panel of the UKSCA. Additional specific demographics and identifiers are omitted to protect the stakeholders' confidentiality.

Thirteen researchers participated, including three sport coaching science researchers with PhDs who study psychosocial aspects of S&C coaching (one of whom is a Certified Strength and Conditioning Specialist and Fellow of the NSCA; another is an Accredited Strength and Conditioning Coach, tutor, and assessor for the UKSCA; and the third has an extensive S&C coach research program and is the Principle Investigator (PI) on this project), two undergraduate sport science students with experience in S&C, and eight participants who were members of a social science sport laboratory that consisted of two PhDs in sport coaching/sociology, two part-time instructors in sport leadership and sport psychology, two graduate students in sport



leadership/management and coaching, and two undergraduate students in sport leadership. All researchers and UKSCA stakeholders were 18 years of age or older. **Four of the researchers also led and co-authored this study.**

### *Procedures*

There were two steps in this qualitative PAR. First, and in accordance with peer-reviewed research and best practices<sup>1, 17</sup>, the 13 researchers developed definitions for pedagogical, philosophical, psychological, and sociocultural coaching competencies. Each researcher was tasked with writing their own personal definition of the four terms and separately emailing their definitions to the student research lead. Second, the 30 UKSCA stakeholders defined these same terms via an audio recorded interview conducted by one of the researchers skilled in qualitative interviewing.

### ***Summative Content Analysis***

A qualitative summative content analysis was used to analyze the researchers' and UKSCA stakeholders' definitions of psychosocial competencies<sup>29, 30</sup>. Qualitative content analyses involves the interpretation of text data. This method of analysis examines language for the purpose of classifying text into categories that represent similar meanings<sup>29</sup>. Summative content analysis begins by identifying and quantifying words to explore usage. However, going beyond word counts, it includes a process of interpretation of the meaning of those words<sup>30</sup>. Thus, the analysis began with the researchers' data. The lead student researcher collated the researchers' written definitions for each of the four psychosocial competencies. This student then went through each definition and determined keywords, noting similarities in each of their definitions, to develop an understanding of the usage of the words. She then developed, for each of the four psychosocial competencies, an amalgamated definition using the keywords embedded

within meanings that had been identified across the researchers' data, including examples. These long form definitions were then shared with the full research team that collaborated to make the definitions concise while maintaining keywords and meanings.

Because of the large amount of data from the transcripts of the 30 UKSCA stakeholders, these data were inputted into NVivo12 Qualitative Analysis Software. Like the researchers' data, the stakeholders' quotes were collated by the four psychosocial competencies. However, unlike the researchers' data, which was neatly written into definitions in one or two sentences, the stakeholders' data was made up of many separate quotes per stakeholder of conversational ideas and concepts about what they perceived the psychosocial competencies meant. Thus, the data needed to be treated differently. Per summative content analysis, the lead student researcher read each quote, determined the most reported keywords, and sorted quotes with these keywords into tables according to their content categories<sup>30</sup>. Thus, for each of the four psychosocial competencies, a table was created that included five to eight words (content categories) that encompassed the stakeholders' meanings of the psychosocial competency. According to Weber, the success of content analysis is grounded in the coding scheme in which large quantities of text are reduced into few content categories<sup>29</sup>. The tables were the coding schemes that allowed the research team to identify the relationships among the categories<sup>30</sup>. From these tables, the PI developed an encompassing definition for each psychosocial competency. The tables and definitions were again shared with the full research team to develop consensus on the final definitions.

A comparison of coding is used to establish validity and enhance the accuracy of qualitative findings<sup>31</sup>. Thus, for both the researchers' data and the stakeholders' data, the research team independently read the coding schemes and came together to discuss the

interpretations to come to consensus on the definitions created. Further, in accordance with PAR principles of collaboration and shared understanding and to provide additional methodological rigor to the qualitative analysis, the researchers' and stakeholders' definitions of the four psychosocial competencies were placed side-by-side for comparison.

## FINDINGS

There were similarities and differences between the researchers' and stakeholders' definitions. The results are organized across the four psychosocial competencies with the researchers' definition first, followed by the stakeholders', and then a comparison. Keywords from the qualitative analysis are italicized to easily compare the researchers' and stakeholders' terms. Psychological coaching competencies are presented first because the stakeholders had the most confidence identifying what this term meant. The other three coaching competencies are presented thereafter because they were less known by the stakeholders and tended to be confused with keywords associated with psychological coaching competencies.

### *Psychological Coaching Competencies*

The researchers identified psychological coaching competencies as the knowledge, skills, and abilities of a coach to *manage* or *cope with* (reflect and apply positive strategies towards) their own and other sport performers' (e.g., athletes) *mental skills/health, emotions, and cognitions*, and how these affect others around them (athletes, coaches, etc.). A psychologically competent coach understands how *coaching behavior* and *communication* (verbal and nonverbal) might impact the athlete's development and performance. Also, the S&C coach's development of an *environment conducive to athletic flourishing* involves the use of these psychological competencies.

Every stakeholder easily spoke about what they considered psychological coaching competencies, often referring to these as “soft skills.” Items identified included *communication, behavior, relationships, mindset, motivation, emotions, learning, and cognition*. One stakeholder summed up psychological coaching competencies as, “all the things we don’t really teach... that differentiates between an okay coach and a really perceptive coach.” The participants noted that psychological coaching competencies encompass “everything that is not biomechanics and physiology” and was considered non-technical/non-physical. Table 1 identifies key themes and representative quotes from stakeholders that shows their understanding of psychological coaching competencies.

\*Table 1 about here\*

Comparing the researchers’ and stakeholders’ definitions, a major difference is that the researchers did not state that psychological coaching competencies encompass all coaching competencies that are not biophysical knowledge. The researchers spoke of managing and coping with behaviors, emotions, cognitions, while the stakeholders referred to understanding, working with, or changing these.

### *Pedagogical Coaching Competencies*

The researchers referred to the knowledge, skills, and abilities of a S&C coach to *design practice* and game *strategies, tactics, and techniques*, provide *effective instruction* (e.g., demonstration, pre-, concurrent-, post-instruction, feedback, cues), and create an *effective learning* and performing context. These aspects were reported in consideration of the coach’s readiness to coach and the idiosyncratic *characteristics of participants* for their overall development. Pedagogical coaching competencies should also include a reflective cycle where

athletes and coaches engage in *critical reflection* on performance and/or coaching practice to learn from experience.

Almost one third of the stakeholders struggled with explaining the meaning of pedagogical coaching competencies. For example, one stakeholder said, “this one I always struggle with actually.” Another said, “Pedagogical? Well, I’m not sure.” Yet another said, “Um, I guess it’s perhaps about coaching competencies that are underpinned by a specific learning style or theory, perhaps? I’m not that well versed on them if I’m being brutally honest.” Despite uncertainty regarding the term’s definition, it was referred to as understanding how people *learn, techniques and/or strategies* for teaching *skill acquisition, instruction, communication, feedback, knowledge, observation, and designing structure*. Table 2 identifies keywords and representative quotes from stakeholders that shows their understanding of pedagogical coaching competencies.

\*Table 2 about here\*

Absent from the stakeholders’ transcripts but provided by the researchers were the following keywords: *reflect / reflection / reflective, demonstration / demonstrate, and cues*. Further, the stakeholders used words to identify pedagogical coaching competencies that were not included in the researchers’ definition, including *communication* (which was identified as a psychological coaching competency), and *observation*.

### *Philosophical Coaching Competencies*

The researchers identified philosophical coaching competencies as *underlying values and beliefs* that *guide the coach’s behaviors* and that play out when creating a *vision and mission*, but also *guide the methods used* in learning or performance objectives. An explicit coaching philosophy should be differentiated from, but complementary to, the sport organizational/team philosophy. The researchers noted that S&C coaches may state that they have a value system, but

there could be a disconnect between their actions/behaviors and the values that are represented.

Almost one third of stakeholders were unsure what philosophical coaching competencies meant. For example, one stakeholder said, “that’s a tough one for me.” Another said, “softer skills of coaching and the softer skills of learning.” Nonetheless, many offered ideas around what philosophical coaching competencies meant to them, including *beliefs* and *values* of how to help an athlete develop and a *style* of coaching or philosophy towards a training method that was *adaptable* and could change over time. One stakeholder also noted that a S&C coach’s philosophy was often in *alignment* with their education. Table 3 identifies key themes and representative quotes from stakeholders that shows their understanding of philosophical coaching competencies.

\*Table 3 about here\*

While both groups mentioned beliefs and values, the researchers noted that the S&C coach’s philosophical beliefs should also guide their plans and behaviors and that these may or may not be the same as the organization’s values. The stakeholders instead again referred to “soft skills”, implying behavioral implementation, but not explaining that coaches could be in control of implementation.

### *Sociocultural Coaching Competencies*

The researchers defined sociocultural coaching competencies as S&C coaches’ understanding, awareness, and subsequent actions within the *social environment* and *shared ways of life, patterns and differences* of people, communities, and sports. These competencies included issues of *power, control, discrimination, diversity, and social justice, bureaucracies, organizational politics* and *micropolitics*, and varying *social structures* and their development in sport. Also, a S&C coach should possess awareness of their own *social and cultural biases and*

*privileges, varying cultures within different sports, and how their adaptations (i.e., socialization) to these elements may impact athletic performance output and programming.*

About half of stakeholders were unsure what sociocultural coaching competencies meant. For example, “Sorry, these are a lot of new terms for me. What was that again?” Another participant said, “It’s not something I know formally.” Several referred to philosophy, and one mentioned that, “it was never taken seriously or seen as an important thing when I was in performance environments.” When they could describe what they thought it entailed, they often used the words *social* and *cultural* environment. Also, they spoke about *understanding differences and different backgrounds, adapting to coaching different countries’ cultural generalizations, sport norms, acceptable behaviors, and coaching actions and biases*. Table 4 identifies key themes and representative quotes from stakeholders that shows their understanding of sociocultural coaching competencies.

\*Table 4 about here\*

Compared to the researchers, stakeholders focused on cultural differences when coaching in different countries and understanding the different terminologies and ways of training in different sports. While a couple of stakeholders mentioned race, gender, sexuality, and other markers of identity and diversity, none spoke about issues of social justice, politics and micropolitics, or privilege in coaching, especially for coaches who fit the dominant practices of S&C coaching in the UK (i.e., white, male, able-bodied).

## DISCUSSION

The purpose of this **PAR** qualitative study was to define psychosocial S&C practice terms (i.e., pedagogical, philosophical, psychological, sociocultural) from the perspectives of S&C researchers and practitioners. Defining concepts and terminologies used in science and practice

significantly affects how research is conducted, organizations are led and managed, and how S&C practitioners are educated and communicate. This study advances the S&C literature by showing how researchers and stakeholders collaborated using a PAR approach to define complex psychosocial terminologies. Given the nuances and differences between the group of researchers and stakeholders in this study, participatory action researchers should keep in mind the need to develop a common understanding of terminologies for PAR. Challenges of shared understandings has been shown in related sport research, such as mindfulness, where understandings in practice can significantly vary across personnel in a collegiate athletic department that included clinical and sport psychologists, sport coaches, athletic trainers, S&C coaches, and athletes<sup>32</sup>. While the S&C community continues to call for additional accuracy, clarity, and consistency in the use of scientific terms, this study adds to that call by empirically demonstrating how psychosocial terms are understood<sup>4, 5</sup>.

It has been acknowledged that S&C practice entails multiple and complex cognitive, emotional, and behavioral factors, but the psychosocial education of S&C practitioners has been rather lacking and disjointed<sup>33, 34</sup>. In this study, the researchers' definitions of psychosocial competencies were academic and focused on the knowledge, skills, and abilities of each of the four areas. The researchers' understandings tended to follow disciplinary lines with pedagogical definitions focusing on teaching and learning, philosophical definitions on beliefs and values, psychological definitions on the central cognitive-emotional-behavioral aspects of S&C practice, and sociocultural definitions on social identities and cultural dimensions. The UKSCA stakeholders spoke most about psychological competencies and tended to identify all terminologies as psychological. As a PAR project, the researchers and stakeholders set out to collaborate on understanding and improving the UKSCA's psychosocial education for its



members. Identifying both groups' understandings of these foundational competencies facilitate the next steps of the PAR, which is discussing with the stakeholders how these psychosocial competencies should be incorporated in curriculum development.

Additionally, these findings are of value to the evidence-base of S&C that is limited with regards to pedagogical, philosophical, and sociocultural research and theorizing on the preparation of S&C practitioners<sup>1, 6, 11, 19, 26</sup>. Although our findings show that stakeholders' most frequently associated social and behavioral aspects all with psychological competencies, this finding resonates with research showing understandings and misunderstandings of S&C coaches on perceived psychological responsibilities of coaching<sup>33</sup>. Our findings resonate with the nuances and debates within sport psychology research that are overlooked or underappreciated by some stakeholders. Furthermore, lumping together many social and behavioral aspects into psychology obscures the value and evidence-base in pedagogy, philosophy, and sociology. In turn, these problems can be passed on to S&C practitioners, who may not develop a deep understanding and skillset to navigate the wide array of psychosocial aspects of S&C practice. Organizations such as the UKSCA and NSCA, amongst others, can use these findings to better meet the needs of their diverse members and to enhance the psychosocial competency development of S&C practitioners.

As is the case with science, the researchers had to philosophically ground their approach, which required some *a priori* assumptions (i.e., bias) about psychosocial terms situated within the academic literature that could be extended empirically via the approach described herein. Because the research processes were driven by the research team, this framing resulted in contrasting the two groups' definitions. As a PAR, this step facilitates collaboration and shared meaning making. However, for coaching science and S&C scholars, lingering issues include

generalizability<sup>35</sup> and professionalization that require a more common framework of understanding<sup>36</sup>. Further research is warranted to understand how culture (e.g., geography, nationality, schools) affects conceptualizations of S&C psychosocial terms. A limitation of this study includes the researchers and UKSCA stakeholders residing in North America and the UK. For coaching science and S&C organizations and coaches to progress, they should consider operationally defining these terms to establish common language. Such a step may help reduce the variation in conceptualizations amongst researchers and practitioners, while leading to a deeper understanding and application of psychosocial competencies. Furthermore, as acknowledged by philosophers of science<sup>37</sup> and research methodologists<sup>35</sup>, scholarly communities will need to endure vigorous dialogue and decision making on abstract concepts that become operationally defined in individual research studies.

#### PRACTICAL APPLICATIONS

S&C practitioners may benefit from this study by developing a deeper understanding of psychosocial S&C practice terms (i.e., pedagogical, philosophical, psychological, sociocultural). In addition to the UKSCA stakeholders, it is likely that other S&C practitioners may not more fully appreciate the depth, breadth, and nuances of these ways of knowing. Likewise, S&C researchers and participatory action researchers may better appreciate the differences in their understandings with non-academic (e.g., administrators, coaches). Consistent with research and best practices on quality coaching and deliberate practice, S&C practitioners may enhance their intra- and inter-personal coaching skills by reflecting on what these terms mean, how they have come to understand these terms, and what these competencies mean for their practice<sup>10, 16, 38, 39</sup>. Deliberate practice, an expertise theory, has been proposed as a way for S&C practitioners to enhance their practice while outperforming peers and nonexperts<sup>39</sup>. Using an extensive

knowledge base, such as explained in this paper specific to psychosocial competencies, has been positively related with expertise and offers those concerned with S&C practitioner education and preparation an evidence- and theoretically-informed approach to improvement.

S&C practitioners, coaching science researchers, and S&C educators are (or should be) vested with their personal development or developing others. S&C practitioners now have an example of a PAR study specific to S&C and this may help prepare practitioners to collaborate with applied researchers. The findings of this study extend what was previously known about S&C psychosocial knowledge and skills and showed a rather significant gap and difference between researchers' and stakeholders' understandings. Although shared language and scientific debate alongside one another are hallmarks of a mature scientific discipline and ongoing professionalization, the findings of this study provide greater conceptual clarity to the growing body of psychosocial S&C literature. Although seen as less objective and more subjective than the natural sciences, the social and behavioral sciences are clearly germane to S&C science and practice. Clear, shared, and deep understandings can be constructed for psychosocial terms that are often considered complex, messy, and contested<sup>40</sup>. Given the breadth and depth of paradigms, theories, and research designs and methods used in the social and behavioral sciences and the complexities of acquiring psychosocial competencies or expertise, it is recommended greater attention and resources (e.g., funding, time at conferences, required degree coursework) are provided.

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The first two authors contributed equally on this manuscript and are listed alphabetically.

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