Chinese Coaches Constructed and Verified the Career Self-Management Scale Immediately

Yao Lu[1], Fuxi Wang[2]

Abstract

Internet simulation interview platforms have been built and run by domestic colleges recently to help students get ready for the workforce. The study's goal was to create and first validate the Career Self-Management Scale-CC (also known as the CSMS-CC), a context-specific tool for evaluating the self-management of careers for Chinese coaches. To create prospective CSMS-CC items, qualitative data from in-depth interviews with managers were pleased analysed. Experts on the panel assessed the items' content validity. Exploratory Factor Analysis (EFA) was used to analyse the factor structure and item execution of the CSMS-CC, and sample 1 (n = 230, 26.10% females) was used to assess the reliability of internal consistency of its subscales. In sample 2 (n = 294, 38.94% female), the factor architecture of the CSMS-CC was further analysed using complementary factor analysis (CFA). The 10-item three-correlated-factors model of the CSMS-CC exhibited a satisfactory model fit to the data, according to the CFA outcomes for sample 2 ($\chi^2 = 189$, which is 36, df = 64, p < 0.01, CFI = 0.84, TLI = 0.98, SRMR = 0.28, RMSEA, or = 0.807 (90% Continuous Integration (CI) = 0.297–0.189). Cronbach's alpha values (ranging from 0.78 to 0.81) and the composite reliability (which varied from 0.85 to 0.84) of the three subscales were determined to be satisfactory. In their work, academics and practitioners can make use of the model and the established metrics that encourage it to harness the facilitating (i.e., self-efficacy, professional goals, diligence, openness, and extroversion) and hindering components of the career planning processes.

Keywords: *Chinese Coaches, Career Planning Processes, Three-Correlated-Factors, Career Self-Management Scale, Domestic Universities, Exploratory Factor Analysis.*

Introduction

Coaches' actions have a significant impact on players' psychological development and productivity. According to the Self-Determination Theory (SDT), coaches can be categorized as either controlling or promoting autonomy are beneficial [1]. The basic psychological needs, motivation, and overall well-being of athletes participating in athletic competition are greatly influenced by the interpersonal styles employed by their coaches, as previous research has time and again demonstrated. Coaches that support athletes' independence do so by fostering independence, supporting it, and involving players in decision-making. On the other hand, coaches that adopt a controlling style exhibit authoritarian, coercive, and pressure-filled behaviours [1, 2]. Athletes' subjective energy and exhaustion are impacted by changes in their psychological fulfilment or thwarting, which are predicted by their judgment of the interaction styles of their coaching.

Specifically, there is a positive correlation between subjective energy and satisfaction with needs and the perception of an atmosphere that supports autonomy, and a negative correlation between exhaustion and need blocking [2, 3]. On the other hand, there is a negative correlation between subjective vitality and the perception of an oppressive atmosphere and a positive correlation between need thwarting and burnout.

Every stage of an athlete's growth is difficult particularly for children who have to strike a balance between sustaining a high standard of athletic excellence and achieving academic success. They could be forced to withdraw from the competitive sports setting during their preparation due to personal decisions, [4], family matters, or injury. Student athletes endure greater pressure to improve their careers and more obstacles

[1] 1Ph.D in Business Administration, Seoul School of Integrated Sciences and Technologies, Seoul, Korea 03767,46, Ewhayeodae 2-gil, Seodaemun-gu, Seoul, Korea, Email: luyao@stud.assist.ac.kr

[2] Ph.D in Business Administration, Seoul School of Integrated Sciences and Technologies, Seoul, Korea 03767, 46, Ewhayeodae 2-gil, Seodaemun-gu, Seoul, Korea, Email: wangfuxi@cau.edu.cn

than the normal individual because to the prospect of abrupt life transitions. However, collegiate athletes typically in the experimental stage of their careers, according to Super's theory of career development.

Careers are a crucial period before adolescence that call for job research in order to build self-awareness and define career paths that allow for relevant decision-making [5]. On the other hand, a great deal of psychological stress results from college players delaying career preparation until the very end of their sporting careers.

College players' attempts to reconcile their responsibilities as students and athletics are further hindered by the absence of appropriate career counselling, which presents serious obstacles in their behaviour. This encourages athletes to have a passive mind-set, which hinders their engagement in athletic activities and increases the risk of mental health issues, social networking difficulties, and poor employment skills [6]. College athletes often don't explore their job options to the fullest extent possible because they are primarily focused on preparing for their sporting duties, which limits their interactions with other professionals. Due to their lack of decision-making expertise, Taiwanese college athletes typically rely on the counsel of their parents, coaches, and teammates when considering choices on their future schooling.

As a result, they frequently suffer more severe anxiety than the typical student and have a tendency to approach difficulties with an unfavourable mind-set and lack of action when it comes to choosing a career after graduation [7, 8]. Furthermore, professional sports and the sporting goods sector in China are not as developed or powerful as those in the US or Europe. Athletes must get ready for a job transition before they retirement from competition, as for many, their tenure in college represents both the high point and the end of their sporting careers. The majority of college athletes' primary employment aspiration, influenced by conventional cultural norms and customs, is to work as a fitness instructor or coach following graduation [9, 10].

If, for whatever reason, this objective is not met, their future professional behaviour is probably going to be impacted by a lack of an interest in and aptitude for other areas. Apart from clichés like subpar academic achievement, rigidity, and a deficiency in social skills, athletes are often viewed negatively in today's society, which has an impact on their professional growth.

Prior research has indicated a connection between the implementation of health knowledge and managing yourself practices; however, these studies have mostly examined the effects of information excellence, source, and perceived utility on self-management practices. The way that a lot of chronic illnesses are managed is affected by this behaviour [11, 12]. The quantity and quality of sleep experienced by SLE patients is positively correlated with the perceived utility of health information. Patients with chronic heart disease can benefit from superior knowledge in terms of their quality of life and psychological wellness.

According to a qualitative study, even when diabetics have access to enough health information, their levels of managing one's emotions are still low because they don't think it's useful. Additionally, it has a good impact on individuals with diabetes problems' anxiety, despair, and compliance behaviour [13]. Conversely, studies have demonstrated that diabetic participants' degree of self-management influences how they use health information as well as can have a separate impact on people's readiness to accept it [14].

Student-athletes are frequently unprepared to enter the workforce after graduation, despite the fact that the majority of athletes will quit competitive sports after their eligibility has expired. Due to the demanding nature of intercollegiate athletics, student-athletes may find it challenging to get ready for the workforce once they graduate [15]. Their dedication to athletics can leave them with limited spare energy and time for extracurricular activities or career planning.

It may not be peculiar for participants to exhibit impoverished career planning abilities and a lower degree of career development and organizing compared to other college students, [16], given that participating in non-athletic activities and investigating alternative career options are essential steps in the career planning process [17]. Because of this, when student-athletes quit college sports, they could run into difficulties adjusting.

Our reasoning corresponds with signal theory as we examine the process of communication between human being and organization actions in the context of knowledge asymmetry. Developmental practices are viewed by signal theory as signals that organizations communicate. Employees will screen, observe, [18], and evaluate signals from the organization before acting in a career-self-management capacity, [19, 20], such as conducting career exploration and planning. It has been confirmed by several academics that offering training and development to staff members indicates an organization's willingness to value and invest in them. Employees are better able to improve job satisfaction, [21], gain a wide range of competences through training opportunities, and demonstrate significant advancements in engaging in self-management of career behaviours based on developmental and supporting signals [22, 23]. Similarly, career growth raises staff satisfaction and directs their attention toward their own careers [24]. According to certain experts, performance reviews also help employees strengthen their areas of weakness and grow their strengths, giving them a stronger sense of direction and a reason for their follow-up plans.

Even while collegiate athletes are aware that their sports careers will eventually come to an end, their years of intensive attention on their sport may have discouraged them from considering other possible job possibilities before retiring [25, 26]. During their undergraduate years, they might not have a sufficient amount of time to devote themselves entirely to their studies and to pursuing interests and hobbies outside of sports. Because of this, student-athletes are more prone to put off important professional responsibilities until after they graduate from college, which can result in deficits in their professional development and inadequate preparation for life beyond athletics [27, 28]. It is crucial to look into how college athletes plan their careers for life beyond college athletics, since planning ahead of time has been shown to lessen the stress brought on by the identity shift and ease the transition out of sports.

The Conceptual Model of Adjustment to Career Transformation, one of the most well-known models for sport career transition, emphasized the value of preretirement preparation to help athletes adjust to life after sport. There is a wealth of evidence to suggest that preparing for a job outside sports can be extremely helpful in mitigating transitional difficulties [29]. Finding the important determinants regarding preparing for a career beyond sport is necessary because, despite the fact that career management is a crucial indicator of successful job transitions, the theoretical mechanisms behind career planning have not received much attention.

Objectives Of the Study

- Create a thorough list of topics covering different aspects of career self-management that are unique to Chinese coaches.

- Conduct pilot testing with a sample of Chinese coaches to evaluate the items' relevancy, comprehensibility, and clarity.

- Use Exploratory Factor Analysis (EFA) to fine-tune the scale items and determine the CSMS's underlying factor structure.

- Employ Confirmatory Factor Analysis (CFA) to appraise the CSMS's construct validity and gauge its dependability using internal consistency metrics, such as Cronbach's alpha.

Literature Review

(Fengjiang, J., 2023) [30] In the past ten years, the People's Republic of China has seen a sharp increase in the number of business and personal coaching programs. These programs offer drastic self-transformations with the goal of achieving both social responsibility and individual success. Enforcement of rules and expressiveness of emotion are hallmarks of the majority of coaching programs that are currently popular in China. These traits are implemented in the close relationships that coaches and participants have. This article discusses and evaluates these self-transformation processes in the context of the quickly expanding "Leadership Programs" (LP).

(Li, J., Han, X., 2021) [31] Employees need to take an up-front approach to career management in order to stay competitive in the ever-changing and uncertain modern work environment. This study constructed an interactive model based on the self-determination theory that predicts career self-management using work independence, supervisor support, and calling. The time-lag poll, which involved 245 permanent staff members in China, concluded that supervisor support and employees' sense of calling reduced the direct relationship between job autonomy and career self-management. Additionally, the three-way interaction showed that when calling is low, the moderating influence of support from supervisors on the connection between career self-management and job autonomy is larger. Lastly, the discussion of the ramifications, restrictions, and future directions for study is held.

(Peng, Q., 2020) [32] Patients undergoing cancer treatment prefer chemotherapy administered by mouth over intravenous chemotherapy due to its increased availability and comparable efficacy and toxicity. Self-managing is crucial for patients receiving oral chemotherapy because they must actively participate in their care, which is essential with home-based oral therapy. Sadly, there is still a long way to go in creating self-management assessment instruments for oral chemotherapy. The development of the OCSMS item pool was based on an examination of the literature and interviews with semi-structured format. A research seminar, a Delphi poll, and pilot testing were used to create the initial size, which had 38 questions and 5 dimensions. We gathered 261 patients from Chinese cancer hospitals in order to evaluate the validity and trustworthiness of the data.

(Jin, H., 2024) [33] Time Management (TM) was examined as a mediating component in the employability dynamics of Chinese college athletes, with a particular emphasis on Professional Identity (PI). Chinese collegiate athletes must comprehend the connection among PT, TM, and EMT in order for them to effectively traverse the rigorous academic and athletic contexts. Data pertaining to a sample of 224 student-athletes—142 males and 82 females—was collected from five universities. Statistical Package for Social Sciences (SPSS) was used for the analysis.

(Yin, X., Chu, Z. J., 2023) [34] Recently, managing yourself has become more difficult for cancer patients. The PRO-SELF nursing intervention is the means by which this research attempts to alleviate cancer-related symptoms of persistent discomfort, anxiousness, and depression. Between January 2016 and December 2019, sixty-four participants were randomized at random to an interventional and a control group of patients. Thirty cases in the control group and thirty usable cases in an intervention group were gathered. A PRO-SELF based multifunctional cooperative cancer pain nursing program was given to the intervention group, whereas a regular cancer discomfort nursing engagement was given to the control group.

(Streltzov, N. A., 2022) [35] In order to evaluate the viability of a virtual intervention and ascertain the efficacy of Home-Based Self-management and Cognitive Training Changes Lives (HOBSCOTCH) in an actual environment, we conducted a multisite, pragmatic replication experiment at four epilepsy centres in New England. HOBSCOTCH is an eight-session intervention designed to improve the quality of life (QoL) and cognitive impairment in individuals with epilepsy (PWE). Four states' epilepsy centres were used to recruit participants, who were then block-randomized into three groups: waitlist control, online HOBSCOTCH (H-V), and in-person HOBSCOTCH (H-IP). All groups' outcome measures were evaluated at baseline, three months, and six months. The intervention groups also had long-term follow-up at nine and twelve months.

(Chang, S. H., 2023) [36] Women with low levels of education, who make up a large portion of the elderly population, are more likely to develop metabolic syndrome and related cardio metabolic disorders; thus, early identification and efficient treatment are critical. Ninety-nine women with the metabolic syndrome, who were age 61 and education < 6 years, were randomized to one of two groups: a control arm (N = 48) or a self-management interference (N = 51) from four community units. The five components of the intervention were goal-setting, coaching and encouragement from peers, solving issues, workouts and diet adjustments (two nutrition courses and daily exercise sessions), and self-monitoring.

(Lo, S. 2022) [37] The process of recovering after a stroke is intricate, multifaceted, and varied. Although volunteerism enhances the delivery of therapies in stroke rehabilitation programs, it is not fully used because of unclear roles and other program-related issues. We assessed the opinions of volunteers and healthcare professionals about volunteer participation in an eight-week self-management program that supported self-management for stroke survivors living in the community. We conducted person, semi-structured conversations with a purposeful sample of five qualified healthcare practitioners and eighteen volunteers using a qualitative approach.

(Diriba, D. C., 2024) [38] This research looked at the early impacts of a managing yourself support and education programs conducted by nurses on the quality of life and self-management practices of individuals with type 2 diabetes in Western nations Ethiopia. In January–August 2021, a pilot randomised uncontrolled investigation was carried out. After being recruited at the hospital, participants were randomized to either the intervention arm (N = 38) which received usual care along with a community-based self-management of diabetes awareness and assistance program, or the control arm (N = 38) which continued to receive usual care. A 34-item diabetic quality of life evaluate and a 10-item overview of diabetes self-care activity (broadened) scale were used to evaluate self-management behaviour's and quality of life at baseline and two months after follow-up, respectively.

Method and Materials

Based on existing literature, a preliminary item pool was created. Strict adherence to item phrasing guidelines was maintained in order to optimize items' clarity, [39], specificity, and briefness. During further interviews, these things were discussed with coaches. A one-on-one in-depth interview was extended to a sample of sixteen coaches (seven men and five females), ages 35 to 56 (M = 47; SD = 8.69).

Participants in the Method

Sample 1

An 18-item CSMS-CC was given to 230 coaches (170 males, 55 females, and 5 missing), whose average age was 35.98 years (SD = 7.896). The coaches were asked to participate in this research. Every data set was recognized as legitimate and used for further investigation. At four Provincial Training Academies (PTC: Guangdong, Guangxi, the city of Shanghai, and Chongqing), there were coaches from 17 different sports, including badminton and tennis, jumping trampolines, grappling, scuba diving, swimming, sports such as athletics games of table tennis, fencing, training for weightlifting free combat, [40], fighting, wrestling, taking photographs, archery, rowing, and canoeing. Their average teaching experience was 5.05 years (SD = 2.13). The term "sports coaching class" refers to a coaching role that encompasses both local and provincial/national levels. At the time of data collection, 166 coaches were at the provincial or national level, and sixty-three were at the local level. The term "competent title" describes the three levels of the professional qualification system: junior, medium, and senior. At the time of data collection, there were 94 senior level managers and 135 middle-level coaches.

Sample 2

A total of 294 coaches—198 men and 97 women—with an average chronological age of 34.89 years (SD = 7.698) were asked to fill out questionnaires about their professional performance and CSM in order to be considered for participation in this research. Every data set was recognized as legitimate and used for further investigation. At five PTCs (Shandong in the, Jiangsu Province Hebei, Hubei, and Zhejiang), the coaches represented 16 sports, including race walking, biking, the sport of gymnastics judo, taekwondo, rifle, windsurfing and acrobatic skills, yachting, modern pentathlon, the decathlon, flying saucer, a discus, javelin, boxing, and swimming [41]. Their average coaching experience was 4.1 years (SD = 1.98). There were 216 coaches at the provincial/national level and 79 coaches at the local level. At the time of data collection, 109 coaches are higher-level and 184 coaches were medium level in terms of professional title.

Data Gathering

Nine PTCs in the nation of China had their coaches contacted and encouraged to take part in this research. Prior to data collection, informed permission was sought and provided, and only participants who had returned the consent form were invited to fill out surveys. The period of data collection in 2021 was January through November. The survey's instructions were made quite clear at the outset. Every subject gave their permission and participated anonymously in the research.

Career Self-Determination

The CSMS-CC was first designed in Chinese and consists of eighteenth elements with four dimensions. Based on their overall experiences throughout their professions, [42, 43], participants were asked to rate how much they were in agreement or disagreement with every argument on a scale based on four points, which went from 1 (strongly disapproving) to 4 (strongly agree).

Self-Efficacy in Careers

Goal adherence, professional choices, and goals are all impacted by career self-efficacy. It enhances achievement outcomes and raises the possibility of professional success and fulfilment by assisting people in managing their talent and managing stress. Furthermore, it raises the bar for college athletes' expectations and inspires them to take greater initiative in achieving their objectives. College athletes who have a high level of professional self-efficacy thus have more options for their careers, are more proactive in handling the stress and challenges that come with pursuing a profession, and show a better readiness to overcome obstacles and take action in the field of career development. It is discovered that collegiate athletes with greater amounts of career self-efficacy in their decision-making process also have higher aspirations for their future professional growth. Professional self-efficacy promotes decision-making around job goals in addition to helping collegiate athletes plan their careers.
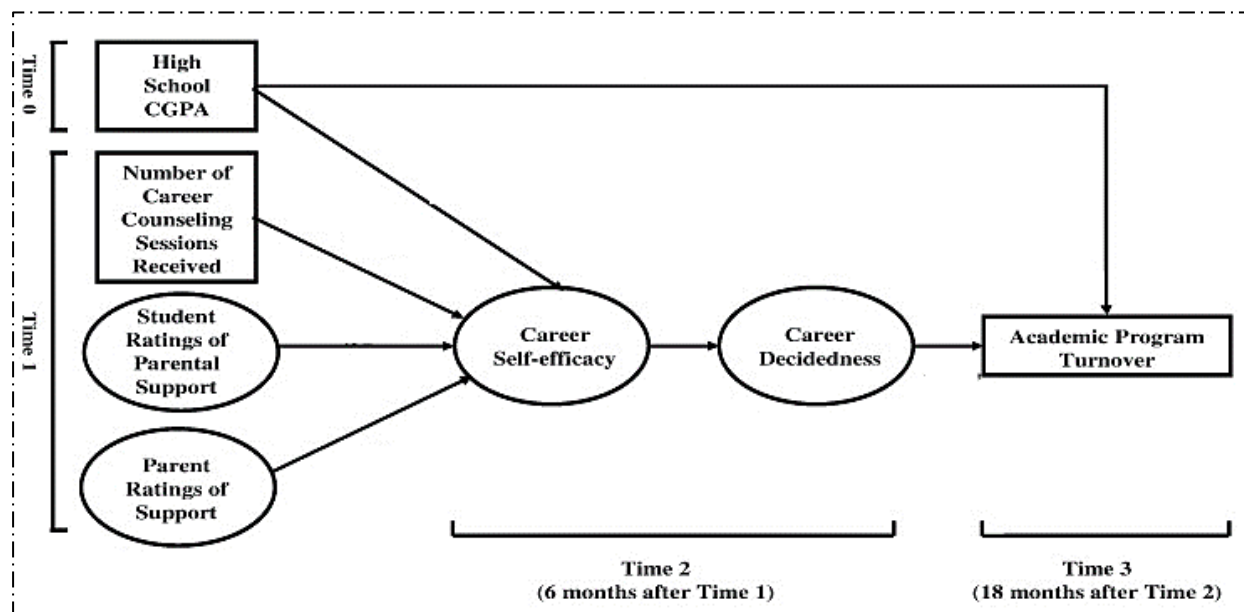

Fig. 1 The Mediation Functions of Career Decidedness and Professional Self-Efficacy.

Career Achievement

Career success was evaluated using the Chinese variation of the internally and externally Marketing ability scale, which gauges a person's assessments of their marketability both within their company and beyond it.

Data Interpretation

Software and SPSS (Version 23.0. Armonk, Queen NY, USA: IBM Corp.) have been employed in the data analysis. First, the factor organisation of the CSMS-CC in sample 1 was investigated by exploratory factor analysis (EFA) utilizing the main axes factoring conduct with promax oblique rotation. The eigenvalue value (higher than 1.0) served as the basis for the factor extraction. Items having communalities less than 0.50, item loadings on any factor less than 0.50, and cross loadings on different variables of 0.40 or higher were the criteria used to filter the items. Using Cronbach's alpha, the internal repeatability was assessed.

Results

Outcomes Of the Sample 1

In order to prevent misunderstanding of the total number of factors and to optimize the discriminant and convergent accuracy of the items that comprise each component, preliminary factor analysis was recommended in the early phases of scale creation. The data was deemed suitable for EFA based on the findings of the Bartlett's test of sphericity ($p < 0.001$) and the Kaiser-Me (KMO = 0.489). Because of low main factor the loadings (less than 0.5) or excessive cross load factors, eight categories were eliminated. Following the first round of EFA, which included the remaining 10 items, the outcome showed that the three elements were kept and contributed 68.57% of the variations in total. The 10 items had primary factor loadings that ranged from 0.64 to 0.93, which is which the loadings that were in excess of 0.5, and crossover factor less than 0.58. There have been determined to be significant inter-factor connections, with values ranging from 0.46 to 0.56. Subsequent investigation showed that the three elements may be expressed as follows: Guanxi Growth (factor 3: 3 items), Training Exploratory (factor 2: 3 items), and Networking Behaviour (factor 1: 4 items). The three dimensions' Cronbach's alpha coefficients varied from 0.47 to 0.28. The findings and descriptive data of the second session of the EFA are shown in Table 3.

Table 1 Factor Loading, Correlation, And Descriptive Statistic of The Second Round of EFA (Sample 1, N = 230).

Dimensions/items	Mean (SD)	F1	F2	F3
F1: Social Media Approaches				
A10	6.98 (3.08)	0.89		
A11	6.98 (0.98)	0.58		
A13	2.89 (5.89)	0.67		
A14	3.10 (0.89)	0.36		
F2: Training Evaluation				
A3	0.59 (0.84)		0.58	
A2	6.89 (0.48)		0.41	
A1	6.48 (0.46)		0.64	
F3: Growth of Guanxi				
A17	6.89 (0.29)			0.93
A18	9.84 (0.64)			0.79
A16	8.49 (0.61)			0.94
69.361% of explanting variables		96.486%	18.964%	18.964%
Correlations between Factors	Mean (sd)	Cronbach's alpha	F1	F2
F1: Networking Behaviour	16.98 (3.56)	0.98		
F2: Training Exploration	9.68 (1.89)	0.81	0.96**	
F3: Guanxi Development	9.68 (1.98)	0.98	0.97**	0.48**

Outcomes Of the Sample 2

Reliability Of Internal Coherence and Factor Structure

Sample 2 Information regarding description are shown in Table 2. In order to further assess the factor organization of the 10-product CSMS-CC that was obtained in EFA, a confirmatory factor study was done. The results indicated that sample 2's data matched the 10-item, three-factor CSMS-CC model satisfactorily: $\chi 2 = 148.98$, a df = 69, p < 0.01, which is CFI = 0.68, which is the TLI = 0.98, which is SRMR = 0.05, the RMSEA = 0.972 (containing ninety CI = 0.048-0.968). The range among the normalized factor loadings was 0.70 to 0.90. Three subscales' composite dependability varied from 0.97 to 0.68, indicating acceptable reliability. Each of the three components' AVE values was higher than 50 (see Table 5).

Table 2 Inter-Item Correlations and Descriptive Statistics (Sample 2, N = 294).

Items	Skewness	Kurtosis	A13	A12	A11	A1	A2	A3	A4	A5	A6	A7	A8
Social Media Approaches													
A14	-0.496	0.189	1										
A13	-0.795	-0.891	0.569**	1									
A12	-0.489	-0.310	0.489**	0.842**	1								
A1	-0.896	0.296	0.698**	0.473**	0.908**	1							
Training Evaluation													
A4	-0.054	-0.420	0.648**	0.831**	0.479**	0.420**	1						
A5	-0.950	0.468	0.896**	0.796**	0.148**	0.346**	0.497**	1					
A6	-0.189	-0.416	0.368**	0.296**	0.610**	0.539**	0.210**	0.141**	1				
Growth of Guanxi													
A18	-0.891	-0.896	0.986**	0.214**	0.897**	0.914**	0.549**	0.893**	0.826**	0.869**	1		
A17	-0.498	0.891	0.689**	0.648**	0.148**	0.496**	0.196**	0.479**	0.348**	0.213**	0.896**	1	
A16	0.789	-0.648	0.642**	0.648**	0.618**	0.978**	0.289**	0.628**	0.418**	0.752**	0.104**	0.586**	1

Table 3 Cronbach's Alpha, Item-Total Correlation, Multiplied Repeated Relationship, Residual, Mean Variance Extracted, And the Combined Reliability of CFA (Sample 2, N = 294).

Dimensions/item	Loading	Residual	SMC	Item-totals r	Cronbach's alpha	AVE	CR
Social Media Approaches					0.49	0.98	0.84
A15	0.98	0.38	0.36	0.93			

A16	0.64	0.64	0.97	0.18			
A11	0.97	0.28	0.34	0.28			
A1	0.54	0.64	0.28	0.37			
Training Evaluation					0.87	0.40	0.94
A2	0.97	0.89	0.87	0.21			
A3	0.39	0.14	0.24	0.91			
A4	0.28	0.62	0.97	0.65			
Growth of Guanxi					0.78	0.48	0.68
A17	0.84	0.20	0.82	0.41			
A18	0.62	0.69	0.45	0.64			
A16	0.81	0.08	0.68	0.86			

Nomo Rationality

By looking at the associations between professional success and scores obtained from the three CSMS-CC subscales, Nomo rational reliability was assessed. Previous research indicates that marketability is a crucial component of job success. The CSMS-CC subscales were predicted to have a strong correlation with both internal and external marketability. It was discovered that internal as well as external marketability had a beneficial relationship with the scores obtained from the 10-item CSMS-CC (see Table 4).

Table 4 Correlations Between The CSMS-CC's Subscale Scores and Overall Score and Its Theoretically Associated Factors (Sample 2, N = 294).

CSMS-CC	Total Score for Career Success	Internal Marketability	External Marketability
Training Evaluation	0.489**	0.148**	0.416**
Growth of Guanxi	0.648**	0.218**	0.628**
Social Media Approaches	0.463**	0.648**	0.648**
Total CSMS-cc score	0.639**	0.329**	0.329**

P<0.05, P<0.01**

Discussion

This study's primary goal was to identify the critical prerequisites and underlying theoretical frameworks of participants' post-sport career planning processes. We proved the measurement model's validity for convergence, discriminant validity, and reliability regarding internal consistency before putting the proposed associations to the test [44]. We not only noticed significant predicted sufficiency of the CSM paradigm as employed in planning a career for life after sport, but we also provided preliminary support regarding the psychometric features of the measures utilized in this research [45]. As for the direct determinants of planning for a career, we discovered that, in line with earlier research, self-efficacy and career objectives served as facilitators while identifying barriers as obstacles.

While not many student-athletes in this research seemed to have recognized professional impediments, those who did reported worse scores on planning, career aspirations, and self-confidence. As was the case in previous investigations, professional impediments also had a detrimental impact on career objectives by lowering confidence in one's ability to make career choices. Additional empirical data revealed that the existence of professional hurdles indirectly discouraged student-athletes from thinking about a post-sport job, either by reducing their self-efficacy or by not establishing targets for their careers [46]. As a result, student-athletes who neglect to plan their careers for life beyond sports may have job hurdles, lack confidence when making choices about their careers, and struggle to articulate clear and specific goals.

Coaches' actions have a significant impact on players' emotional well-being and performance. According to the Self-Determination Theory (SDT), coaches may be categorized as either authoritarian or autonomy-supportive. The essential psychological needs, motivation, and general well-being of athletes participating in competitive activities are significantly impacted by the interpersonal styles of their instructors, as previous research has repeatedly shown. Coaches that support athletes' liberty do so by encouraging independence, fostering autonomy, and involving players in decision-making processes.

The professional Self-Management Scale was designed expressly to assess the behaviour's and methods Chinese coaching used to attain their professional objectives, and the current paper describes the process of developing and validating the scale. The 10-item, three-factor CSMS-CC was shown to be a valid and trustworthy measurement for evaluating the CSM of Chinese coach in Mainland China, according to the study's final results.

A fresh line of investigation into the CSM of Chinese coaches in China's mainland is made possible by this study. In the not too distant future, researchers and practitioners will be able to quantify and contrast the degree of career self-managing behaviour's exhibited by Chinese coaches thanks to the development of the CSMS-CC. Furthermore, they can explore the connection between such conduct and its antecedents, such as personality, drive, self-confidence, and career anchors themselves, and its consequences, which include career and life contentment, performance, professional achievement, competitiveness, competitiveness, and learned helplessness. The Whole National System of football in China is a domain- and culture-specific context, and all three elements of the CSMS-CC were developed based on data collected from this research as well as earlier CSM constructions.

Additionally, the study we conducted took into account the benign aspect in order to comprehend how the unique parent-child bond between Chinese coaches and players influences teaching style. After performing the EFA in Research 1 and 2, items related to the benevolent coaching approach were removed. Furthermore, Study 3 used the CFA to assess whether the regulating, benevolent, and promoting autonomy are beneficial coaching philosophies aligned with the behaviour's often seen in Chinese coaches. As a result, the CCISS was updated in this research to account for the Chinese cultural context. The final 15-item CCISS displayed strong reliability and validity. It contained three items that measured benevolent coaching, six items that measured promoting autonomy coaching, and six items that measured controlling coach.

Social capital has been defined as those assets derived from knowing or being known by others, or from holding a position in a social network. Chinese coaches effectively bolster their social capital by using these networking behaviour's. As a result, the CSMS-CC's Connectivity Behaviours items reflect the behaviour's of coaches in relation to learning activities, getting the most current knowledge, and forming strong professional alliances. The CSM construct's evolved Upward Communication element and the Guanxi Growth dimension are comparable.

"The "presence" of direct narrow-minded ties between multiple individuals" is the definition of guanxi. Guanxi is the construction of strong personal duties based on particularistic bonds or emotive ties between the persons involved. In a family, for example, subordinate are expected to exhibit unwavering devotion and respect toward their superiors. In Chinese culture, Supervisor-Subordinate Guanxi (SSG) is crucial for generating trust between subordinate and supervisor based on factors such as family membership, in-group relationships, and the creation of work teams or groups identities from the viewpoints of both parties.

Conclusion

It was discovered that the CSM model provided a helpful theoretical framework for career planning prediction. With an in-depth knowledge of the method of career planning among college students, this research aimed to fill a theoretical vacuum in the available literature.

According to this study, methods of coaching that are benevolent have an important explanatory dimensions in the Chinese context of culture. Coaching styles that are controlling—characterized by negative influenced regard and overbearing personal control—and supportive of independence are

culturally compatible with athletes from both Eastern and Western cultures. Lastly, coaching styles that are benevolent and promoting autonomy are beneficial have a beneficial effect on athletes, while coaching styles that are controlling have a negative impact. This research showed that, in addition to favourable to autonomy and disciplinarian coaching styles, benevolence—shown in the coaches' maternal concern for their athletes—is a significant coaching style in China. The CSMS-CC's psychological features were created and given initial encouragement by the present research, which used two Chinese coaching samples. The study's findings suggested that Chinese coaches' CSM may be assessed using the 10-item, three-factor CSMS-CC. This study makes it feasible to investigate the variables that may affect Chinese coaches' CSM and its implications for coaches' career growth and performance. It also offers a legitimate and trustworthy instrument for additional study on CSM among Chinese coaches. This research belongs to the body of knowledge in the subject of coach education and career advancement.

References

Callahan, K. A. (2021). Chronic Disease Self-Management Support in Rural Areas: An Integrative Review. Doctoral Dissertations and Project. 3082.

Bedi, A. (2020). A meta-analytic review of paternalistic leadership. Appl. Psychol. 69, 960–1008.

Brown, D. J., and Keeping, L. M. (2005). Elaborating the construct of transformational leadership: the role of affect. Leadersh. Q. 16, 245–272.

Browne, M. W., and Cudeck, R. (1992). Alternative ways of assessing model fit. Social. Methods Res. 21, 230–258.

Carpentier, J., and Mageau, G. A. (2013). When change-oriented feedback enhances motivation, well-being and performance: a look at autonomy-supportive feedback in sport. Psychol. Sport Exerc. 14, 423–435.

Chen, X.-P., Eberly, M. B., Chiang, T.-J., Farh, J.-L., and Cheng, B.-S. (2014). Affective trust in Chinese leaders: linking paternalistic leadership to employee performance. J. Manag. 40, 796–819.

Chen, Y.-R. R., and Schulz, P. J. (2016). The effect of information communication technology interventions on reducing social isolation in the elderly: a systematic review. J. Med. Internet Res. 18:e4596.

Ran, H.; Xiang, W.; Zhenan, S.; Tieniu, T. Wasserstein CNN: Learning Invariant Features for NIR-VIS Face Recognition. IEEE Trans. Pattern Anal. Mach. Intell. 2019, 41, 1761–1773.

Zhou, L.; Li, W.; Du, Y.; Lei, B.; Liang, S. Adaptive illumination-invariant face recognition via local nonlinear multi-layer contrast feature. J. Vis. Common. Image Represent. 2019, 64, 102641.

Cai, Y.; Lei, Y.; Yang, M.; You, Z.; Shan, S. A fast and robust 3D face recognition approach based on deeply learned face representation. Neurocomputing 2019, 363, 375–397.

Lia, C.; Huang, Y.; Yu, X. Dependence Structure of Gabor Wavelets based on Copula for Face Recognition. Expert Syst. Appl. 2019, 137, 453–470.

Shakeel, M.S.; Lam, K.-M.; Lai, S.-C. Learning sparse discriminant low-rank features for low-resolution face recognition. J. Vis. Commun. Image Represent. 2019, 63, 102590.

Wu, Y.; Ji, Q. Facial Landmark Detection: A Literature Survey. Int. J. Comput. Vis. 2019, 127, 115–142.

Corneanu, C.A.; Simon, M.O.; Cohn, J.F.; Guerrero, S.E.; Oliu, M.; Escalera, S. Survey on RGB, 3D, Thermal, and Multimodal Approaches for Facial Expression Recognition: History, Trends, and Affect-Related Applications. IEEE Trans. Pattern Anal. Mach. Intell. 2016, 38, 1548–1568.

Iqbal, M.; Sameem, M.S.; Naqvi, N.; Kanwal, S.; Ye, Z. A Deep Learning Approach for Face Recognition based on Angularly Discriminative Features. Pattern Recognit. Lett. 2019, 128, 414–419.

Chen, X., Zhou, X., Li, H., Li, J., and Jiang, H. (2020). The value of WeChat application in chronic diseases management in China. Comput. Methods Prog. Biomed. 196:105710.

Chiu, C.-J., Kuo, S.-E., and Lin, D.-C. (2019). Technology-embedded health education on nutrition for middle-aged and older adults living in the community. Glob. Health Promot. 26, 80–87.

Chih C, Lin CP. The impact of employees' perceptions of HR practices on identification with the company and citizenship behavior A moderated mediation model. Empl Relat. 2019; 41(6):1238–1255.

Podsakoff PM, MacKenzie SB, Paine JB, Bachrach DG. Organizational citizenship behaviours: a critical review of the theoretical and empirical literature and suggestions for future research. J Manag. 2000; 26(3):513–563.

Díaz-Fernández M, López-Cabrales A, Valle-Cabrera R. Strength of HRM systems and perceived organizational support as determinants of employment relationships: the perspective of HR managers and workers' representatives. BRQ-Bus Res Q. 2020; (4):241–248.

Wright PM, Boswell WR. Desegregating HRM: a review and synthesis of micro and macro human resource management research. J Manag. 2002; 28(3):247–276.

Li CP, Shi K. The structure and measurement of transformational leadership. Acta Psychological Sinica. 2005; 37(6):803–811. In Chinese.

Wang G, Oh I-S, Court right SH, Colbert AE. Transformational leadership and performance across criteria and levels: a meta-analytic review of 25 years of research. Group Organ Manage. 2011; 36(2):223–270.

Leroy H, Segers J, van Dierendonck D, and den Hartog D. Managing people in organizations: integrating the study of HRM and leadership. Hum Resource Manage Rev. 2018; 28(3):249–257.

Yin K, Chen LN, Wang Z, Peng J, Xu HY. Relationship between leadership behaviours and HRM practices: causal, joint, substitute or strengthen effect? Curr Dir Psychol. 2018; 26(1):144–155. In Chinese.

Jiang J, Wang S, Zhao S. Does HRM facilitate employee creativity and organizational innovation? A study of Chinese firms. Int J Hum Resour Manag. 2012; 23(19):4025–4047.

Zhu WC, Chew IKH, Spangler WD. CEO transformational leadership and organizational outcomes: the mediating role of human-capital-enhancing human resource management. Leadersh Q. 2005; 16(1):39–52.

Jeong S. A cross-level analysis of organizational knowledge creation: how do transformational leaders interact with their subordinates' expertise and interpersonal relationships? Hum Resource Dev Q. 2021; 32(2):111–130.

Wu JB, Tsui AS, Kinicki AJ. Consequences of differentiated leadership in groups. Acad Manage J. 2010; 53(1):90–106.

Fengjiang, J., & Steinmüller, H. (2023). Leadership programmes: success, self-improvement, and relationship management among new middle-class Chinese. Ethnos, 88(1), 109-129.

Li, J., Han, X., Qi, J., & He, X. (2021). Managing one's career: The joint effects of job autonomy, supervisor support, and calling. Journal of Career Development, 48(6), 973-986.

Peng, Q., & Wu, W. (2020). Development and validation of oral chemotherapy self-management scale. BMC cancer, 20, 1-7.

Jin, H., & Tu, C. (2024). Navigating the Field: Exploring the Influence of Professional Identity on Employability in Chinese College Athletes with Time Management as a Mediator. Revista de Psicología del Deporte (Journal of Sport Psychology), 33(1), 233-242.

Yin, X., Chu, Z. J., Ni, Y. Y., Li, H. W., & Li, H. Y. (2023). The Influence of PRO-SELF Cancer Pain Control Programme on Patients' Self-Management Ability. International Journal of Integrated Care, 23(4).

Streltzov, N. A., Schmidt, S. S., Schommer, L. M., Zhao, W., Tosteson, T. D., Mazanec, M. T., ... & Jobst, B. (2022). Effectiveness of a self-management program to improve cognition and quality of life in epilepsy: a pragmatic, randomized, multicenter trial. Neurology, 98(21), e2174-e2184.

Chang, S. H., Chang, Y. Y., Jeng, W. J., & Wai, J. P. M. (2023). Efficacy of a multidimensional self-management intervention on low-education women with metabolic syndrome: a cluster randomized controlled trial. Scientific Reports, 13 (1), 10358.

Lo, S. H. S., Chau, J. P. C., & Saran, R. (2022). Volunteer engagement in a stroke self-management program: Qualitative analysis of a hybrid team of healthcare providers and trained volunteers. International Journal of Environmental Research and Public Health, 19 (15), 9341.

Diriba, D. C., Leung, D. Y., & Suen, L. K. (2024). Nurse-led self-management education and support programme on self-management behaviour and quality of life among adults with type 2 diabetes: A pilot randomized controlled trial. International Journal of Nursing Practice.

Guntuku, S. C., Yaden, D. B., Kern, M. L., Ungar, L. H., and Eichstaedt, J. C. (2017). Detecting depression and mental illness on social media: an integrative review. Curr. Opin. Behav. Sci. 18:439.

Heo, J., Chun, S., Lee, S., Lee, K. H., and Kim, J. (2015). Internet use and well-being in older adults. Cyberpsychol. Behav. Soc. Netw. 18, 268–272.

Ji, W. Z., Huan, F., Shu, Q. X., and Fang, Y. Y. (2021). Ying W.a comparative study of unmet needs for home care for older adults living alone and those not living alone. Chin. J. Nurs. 56, 1293–1298.

Kao, Y.-H., Chang, L.-C., Huang, W.-F., Tsai, Y.-W., and Chen, L.-K. (2013). Health characteristics of older people who rotationally live with families: a nationwide survey. J. Am. Med. Dir. Assoc. 14, 331–335.

Khalaila, R., and Vitman-Schorr, A. (2017). Internet use, social networks, loneliness, and quality of life among adults aged 50 and older: mediating and moderating effects. Qual. Life Res. 27, 479–489.

Kim, H., Tietsort, C., Posteher, K., Michaelides, A., and Toro-Ramos, T. (2020). Enabling self-management of a chronic condition through patient-centered coaching: a case of an mHealth diabetes prevention program for older adults. Health Commun. 35, 1791–1799.

Klinenberg, E. (2013). Going Solo: The Extraordinary Rise and Surprising Appeal of Living Alone. London: Penguin Books.

Kneipp, S. M., Horrell, L., Gizlice, Z., Smith, M. L., Linnan, L., and Brady, T. (2019). Predictors of. Health self-management program preference among lower-to-middle wage employed adults with chronic health conditions. Am. J. Health Promot. 33, 172–182.