

Solution-Focused Brief Therapy Group Counselling on Student-Athletes' Self-Efficacy and Coping Mechanisms in Sourthern China Sports

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Abstract

Student-athletes contend with dual academic and athleactic pressure resulting from intensive training, high-stakes competitions, and academic commitments. In the face of long-term multifaceted stress, self-efficacy and coping mechanisms represent two important psychological resources. For this population, there is limited evidence regarding group-based psychological interventions. A single-group pre-test, post-test, and follow-up repeated-measures design was adopted. Thirteen student-athletes participated in this study, and written informed consent was obtained from each of them. This six-session solution-focused brief therapy group counselling (SFBT GC) was based on the core principles of SFBT. In the sessions, major therapeutic techniques were used, including strength-based exercises to highlight participants' strengths and goals, scaling questions to monitor personal progress, and identification of exceptions to recognise functional behavioural patterns. Greenhouse-Geisser corrected analysis of variance was used to evaluate time-dependent changes across time-points for the study's outcome variables, including self-efficacy and coping mechanisms. Bonferroni-adjusted exploratory paired-sample t-tests were further conducted for pairwise comparisons. The omnibus time main effects did not reach statistical significance for any measured outcome. Exploratory pairwise comparisons revealed a large statistically significant reduction in passive coping from pre-test to post-test $t(12)=-3.59$, Bonferroni-adjusted $p=.011$, $d_z=-1.00$, and this lower level of passive coping mechanisms was maintained at follow-up. By contrast, apparent post-test gains in self-efficacy and active coping proved transient, with scores returning toward baseline levels at follow-up. Preliminary findings suggest that SFBT GC may reduce passive coping mechanisms for student-athletes in the short term, but not self-efficacy or active coping mechanisms. Given the absence of a control group and small sample size, this preliminary investigation cannot support definitive conclusions about intervention effectiveness.

Keywords: Solution-Focused Brief Group Counselling, Student-Athletes, Self-Efficacy, Coping Mechanisms, Single-Group Repeated-Measures

Introduction

Mental health is important to healthy adolescent development. Mental disorders affect 17.5% of Chinese children and adolescents aged 6–16 years, with depression and anxiety being the most prevalent problems (Zeng et al., 2026). In adolescence, social-cognitive development is characterized by significant psychological and behavioural changes (Andrews et al., 2021). In this demographic group, environmental risk factors, including unhealthy lifestyles, may contribute to mental health issues (Zeng et al., 2026). Adolescent mental health is a critical priority for public mental health services and policymakers. The majority of research on the mental health of students has focused on ordinary students (Zhou et al., 2023) while studies on student-athletes-especially student-athletes-are relatively rare (Saarinen et al., 2025). This research gap deserves attention, given the unique set of stressors this specific adolescent subgroup encounters.

Mental health is essential for the healthy development of student-athletes, who face persistent academic and sport-related stressors. Stress regulation is a key psychological resource for student-athletes who juggle academic study and competitive sports. Self-efficacy and coping mechanisms are two of the important psychological resources for student athletes. Due to the competing demands of their dual careers, however, these key characteristics may be impaired and they may be at higher risk of unstable self-efficacy and dysfunctional coping mechanisms. However, few studies have examined whether brief strength-based group counseling can sustain changes among this group. Consequently, pilot evidence regarding solution-focused brief therapy group counselling (SFBT GC) is needed to enhance understanding of counselling interventions for student-athletes and guide future controlled trials targeted at self-efficacy and coping mechanisms.

Due to dual educational and athletic commitments, student-athletes are subject to high demands (Santi et al., 2026). They encounter more challenges than their non-athlete peers, such as sport-related injuries, complicated time-management burdens, and identity-related concerns (Santi et al., 2026). As well as general academic and social pressures, they also have to deal with unique sport-specific stressors and external performance-related pressures (Jing et al., 2026). In addition to coaches' expectations, public and national media scrutiny, and heavy workloads associated with social media content creation and interaction, athletes face a number of pressures (Ollie et al., 2026). Therefore, school, sports, and personal life demands can negatively impact student-athletes' psychosocial development and overall well-being (Nikander et al., 2022). Several domain-related reviews have suggested that elite athletes face a variety of stressors during their sports careers that, if not well managed, may result in poor mental health (Kuettel & Larsen, 2020).

Sports psychology has emerged as a critical component of athletic performance in the past few decades. In sports, self-efficacy is crucial for psychological readiness, emotional stability, and task focus, all of which are necessary for peak performance (Buenaventura & Saroca, 2024). It has been shown that individuals with a high level of self-efficacy are more likely to persist during tough times (Bandura, 1977), so when student-athletes are experiencing stressful events, their feelings of capability might affect their academic and athletic performance (van Raalte & Posther, 2019). When athletes demonstrate high self-efficacy, they are better at managing stress, retaining focus, and maintaining consistency in training and competition, thus enhancing their performance (Waddington, 2023). Conversely, low

self-efficacy can lead to individuals focusing on immediate pressures and short-term relief strategies, especially in times of scarcity or stress, which can hinder delay of gratification and narrow future planning (Chen & Wang, 2026). The concept of self-efficacy is especially appropriate for student-athletes because it reflects a strong belief in one's ability to cope with a wide range of challenges, and because of its strong conceptual and measurement validity across cultures (Chen et al., 2026).

In addition to self-efficacy, coping mechanisms serve as another important psychological resource for student-athletes who balance academics and sports. In high performance sports, coping mechanisms assist athletes in overcoming a wide range of challenging situations (Silva et al., 2023). It is crucial for athletes to be able to manage stress in order to succeed. Lack of effective stress management can negatively affect an athlete's physical health, mental health, and cognitive functioning (Ines, 2021). Student-athletes' personal resources and/or coping strategies have been associated with successful coping in several studies (Brown et al., 2015; Cosh & Tully, 2014; Linnér et al., 2021). During elite-sport competition, athletes utilize a variety of coping strategies to deal with stress (Cosh & Tully, 2015). The sport psychology literature suggests that individuals have stable coping styles with which they deal with a variety of stressors (Cosh et al., 2015), or that coping is understood through a process or transactional approach, which uses coping strategies appropriate to stressors and cognitive appraisals thereof (Lazarus, 1999). Consequently, brief counselling interventions can help student-athletes develop more flexible, adaptive coping mechanisms when dealing with dual stressors. Among available counselling therapy, SFBT represents a promising candidate for such brief group-based psychological support.

It is possible to foster greater competitive performance and reduce the risk of sports injuries when one has sound mental health (Mao, 2025). Student-athletes benefit from psychological and counselling support when dealing with more severe or long-term mental health problems like anxiety, depression, and post-traumatic stress disorder (PTSD) (Mao, 2025). There are several psychotherapy systems, but SFBT is widely recognized as a well-established one (Franklin & Reddy, 2017). SFBT focuses on solution-building rather than problem-solving, and it is designed to help individuals use their resources and internal desire to overcome challenges and how they may be applied to achieve positive outcomes (Bond et al., 2013). Solution-focused therapists use the client's specific language to co-construct solutions based on the description of the preferred future where the current problem stops affecting the client's life and analysis of past successes to increase awareness of already existing strengths and resources (de Shazer, 1994). An average of 4–6 sessions of SFBT have positive effects on a wide variety of clients, issues, and settings (Andreea & Krzysztof Pękala, 2025). Research has also demonstrated that brief SFBT can produce promising results in real-world sports contexts for elite athletes dealing with precompetition anxiety, low self-confidence, and motivational difficulties (Zhao et al., 2009). An additional preliminary application of applied evidence found that solution-focused group counselling could improve coping mechanisms among female soccer student-athletes, emphasizing the value of SFBT GC in competitive sport environments (Cui, 2025). SFBT follows a structured process consisting of problem description, goal formulation, exploration of problem exceptions, and end-of-session feedback tied to between-session tasks (Høigaard & Johansen, 2004). In addition to these core procedural elements, these can also be adapted to a group-based setting. Thus, SFBT is

an effective counselling approach for athletes seeking personal development and performance improvement (Høigaard & Jørgensen, 2000).

The present study makes several notable contributions to sport-related social science research against this background. This study provides preliminary empirical evidence of SFBT GC among sports school student-athletes in China, a population that remains underrepresented in existing intervention studies. In addition, this pilot study investigates whether a brief six-session SFBT GC protocol can simultaneously target two core psychological resources, self-efficacy and coping mechanisms, extending prior findings that focused mainly on single outcome measures. This single-group pre-test, post-test, and follow-up design produces practical pilot data that can inform the design of future fully controlled intervention trials in sports schools in China. In summary, these findings add to the limited body of culturally relevant counselling and intervention evidence for adolescent dual-career student-athletes in China.

This preliminary study examines how SFBT GC affects student-athletes' self-efficacy and coping mechanisms.

Methods

This study uses a quasi-experimental design, specifically a single-group pre-test, post-test, and follow-up experimental framework. Byiers et al. (2012) demonstrate that a single-experiment group design aligns with preliminary exploratory research goals. This design as an alternative to conventional group designs, especially in situations where resources are limited or if matching homogeneous control groups is difficult logistically (Byiers et al., 2012).

Participants in this study were student-athletes recruited from sports schools in Southern China, with the focus on self-efficacy and coping mechanisms. Obtaining ethical approval was required prior to data collection. Prior to the study, parental consent and student assent were obtained. Confidentiality and voluntary participation were strictly observed throughout the study.

Participants were recruited from selected sports schools using a purposive sampling strategy. Student-athletes participating in a team sport, at the same grade level, with stable emotional status, and no history of concurrent psychiatric medication use were eligible. According to the study selection criteria, ten eligible participants attended six 90-minute SFBT GC sessions. To ensure data homogeneity and reliability, only participants with complete data and scores on self-efficacy and adaptive coping mechanisms were included in the final statistical analyses.

Student-athletes' self-efficacy and coping mechanisms scores were assessed at three time points: pre-test, post-test, and follow-up. These participants were subsequently administered post-tests and follow-up assessments, and all data were analyzed using R.

Instruments

Demographic Information

Demographic information collected in this study included participants' gender, age, type of sport, nationality, grade, and year of enrollment.

Self-efficacy Scale

The General Self-Efficacy Scale (GSE) is a 10-item instrument developed by Schwarzer and Jerusalem (1995). Adolescents and adults (except children under 12) can use it. Adapted into 28 languages and validated across populations, the GSE has been widely used in sports and psychological research due to its high validity and reliability (Koçak, 2019; Peng & Zhang, 2021). Based on traditional Chinese variants used in Hong Kong and Taiwan by Zeng et al. (2020), adopts a two-factor structure (action self-efficacy and coping self-efficacy) and a 4-point Likert scale (1 = Not at all true to 4 = Exactly true), with total scores ranging from 10 to 40 (higher scores indicate greater self-efficacy). It demonstrates good psychometric properties: Cronbach's coefficient reaches .91, and the SRMR is .030, CFI is .997, TLI is .997, and RMSEA is .055 (Zeng et al., 2020).

Coping Mechanisms Scale

Simplified Coping Style Questionnaire (SCSQ) is a 20-item self-report instrument based on the "Ways of Coping" questionnaire. It can be used to assess an individual's coping strategies under stress (Xie, 1998). It has been widely used in psychological, public health, and sports psychology research, including studies on mental resilience, coping mechanisms during public health emergencies, and post-injury psychological adjustment among athletes (Hu et al., 2024). This construct consists of two core dimensions: Active Coping (Items 1–12), defining proactive behaviors, and Passive Coping (Items 13–20), defining passive behaviors (Yu et al., 2020). Based on a 4-point Likert scale (0 = never; 3 = very often), higher scores indicate a stronger tendency to adopt the corresponding coping style. With Cronbach's coefficients ranging from 0.90 to 0.92, this scale has sound psychometric properties (Xie, 1998).

Solution-focused Brief Therapy Group Counselling

SFBT GC was conducted to the experimental group over six weekly 90-minute sessions in March 2026. Drawing on core SFBT principles adapted from Liu (2016), the intervention was adapted specifically for student-athletes to target self-efficacy and coping-mechanism improvement. It adopted resource- and future-oriented techniques including exception exploration, miracle questions, scaling questions, coping-related inquiry, small-step action planning, and external-perspective affirmation. Full session-by-session content, activities and corresponding therapeutic techniques are provided in **Appendix A**.

Results

Prior to the main analysis, tests of normality were conducted to determine whether the data were normally distributed. Effect sizes were used to measure intervention effects, and significance was set at a P value of 0.05.

Table 1

Time-Point	Self-Efficacy		Positive Coping Mechanism		Negative Coping Mechanism	
	M	SD	M	SD	M	SD
Pre-Test	20.85	4.98	27.62	6.49	19.46	3.31
Post-Test	22.77	5.51	29.31	2.98	17	2.24
Follow-up Test	20.92	4.86	28.08	4.05	17	4.18

Descriptive statistics for self-efficacy, positive coping mechanism, and negative coping mechanism at pre-test, post-test, and follow-up test are presented in Table 1. For self-efficacy, the mean score increased from pre-test ($M = 20.85$, $SD = 4.98$) to post-test

($M = 22.77$, $SD = 5.51$), followed by a decrease at follow-up test ($M = 20.92$, $SD = 4.86$), returning close to baseline levels. Positive coping mechanism showed an increase from pre-test ($M = 27.62$, $SD = 6.49$) to post-test ($M = 29.31$, $SD = 2.98$), with a slight decline observed at follow-up test ($M = 28.08$, $SD = 4.05$), remaining above pre-intervention values. Negative coping mechanism decreased from pre-test ($M = 19.46$, $SD = 3.31$) to post-test ($M = 17.00$, $SD = 2.24$), and this lower mean level was maintained at follow-up test ($M = 17.00$, $SD = 4.18$).

Discussion

In this preliminary study, the preliminary effects of SFBT-GC on student-athletes' self-efficacy and coping mechanisms were explored. Based on the descriptive trends, student-athletes' self-efficacy increased following SFBT GC, whereas their negative coping mechanisms continued to decline. The self-efficacy score increased from 20.85 at pretest to 22.77 at post intervention and declined modestly to 20.92 at follow-up, but remained marginally above pretest levels. The quantitative change corresponded to a qualitative change in self-efficacy from a moderate level to a high level at the post-test, then returning to a moderate level at follow-up. These descriptive data suggest that SFBT GC may enhance student-athletes' self-efficacy, though such scores of self-efficacy have not been sustained over time. Post-test and follow-up measurements indicate potential short-term benefits of SFBT GC for student-athletes.

Gülaçtı et al. (2025) investigated the effects of seven sessions of solution-focused brief therapy on mothers of hearing-impaired children's self-efficacy and resilience. At the two-month follow-up assessment, both coping self-efficacy and resilience showed significant improvements. Additionally, Sancak et al. (20225) used eight weeks of solution-focused goal setting group counselling. It found that participants in the intervention demonstrated a significant decrease in academic procrastination and academic self-efficacy as well as an increase in academic commitment. SFBT-based interventions, whether delivered individually or in groups, can increase self-efficacy when counselling activities align with participants' stress-related needs. These findings provide evidence that SFBT-based interventions can achieve sustainable positive changes in self-efficacy-related constructs. The present SFBT GC pilot intervention was intended to foster self-efficacy and coping mechanisms among student-athletes depending on the accumulated empirical evidence. SFBT focusing on resource identification, exception-seeking, and preferred future imagining may strengthen athletes' confidence to cope with sport-related stressors more effectively.

The descriptive trends observed in the current pilot partially corresponded to these theoretical expectations. Self-efficacy and positive coping mechanisms reached their maximum levels immediately following post test, then gradually declined at followup, remaining above pretest levels. Compared to positive coping mechanisms, negative coping mechanisms decreased from pretest to post test and remained lower at follow-up. As a result, SFBT GC may generate short-term gains in self-efficacy and positive coping mechanisms, but these gains are only partially sustained over time. In the absence of booster group sessions after program completion, student-athletes may be experiencing ongoing dual career pressures that include heavy academic coursework, intense training schedules, and competitive demands, leading to a partial decay of self-efficacy and positive coping mechanisms gains. In spite of this, the sustained reduction in negative coping suggests that

maladaptive stress reactions might be more susceptible to lasting change through this brief group intervention.

Limitations

Participants in this study were recruited from only one sports school, so the results may not be generalizable to student-athletes from other sports-training institutions with different training cultures and demographic profiles. Further limitations of the present study included the relatively small sample size and lack of a control group. It is difficult to rule out confounding factors such as regular training cycles or external life events that could contribute to observed changes in outcome variables without a control comparison. Additionally, follow-up data were collected at a single timepoint after intervention completion; therefore, it remains unclear whether the observed changes would persist over a longer period of time. Lastly, this study cannot pinpoint which specific therapeutic factors (e.g., peer support, solution-focused techniques, group cohesion) contributed to the observed descriptive changes in self-efficacy and coping mechanisms.

Conclusion

Despite these limitations, this pilot study provides preliminary descriptive evidence regarding SFBT GC's potential utility for student-athletes. According to the observed trends, SFBT GC can lead to short-term enhancements in self-efficacy and positive coping mechanisms, along with sustained reductions in negative coping mechanisms. Despite some intervention-related gains fading at follow-up, these outcomes suggest promising directions for future research. To enhance external validity, future studies should employ larger samples, include control groups, and recruit participants from multiple sports schools. To examine long-term outcome stability, multiple extended follow-up assessments are also recommended, alongside further exploration of the core group therapeutic mechanisms within SFBT GC. These findings demonstrate that SFBT GC can be delivered to student-athletes and support further refinement of group-based mental health interventions.

References

- Andreea, M. (2025) Effectiveness of solution-focused brief therapy: An umbrella review of systematic reviews and meta-analyses, *Psychotherapy Research*, 35:7, 1043-1055, DOI: 10.1080/10503307.2024.2406540
- Andrews, J. L., Ahmed, S. P., & Blakemore, S. J. (2021). Navigating the social environment in adolescence: The role of social brain development. *Biological psychiatry*, 89(2), 109-118. 10.1016/j.biopsych.2020.09.012
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191–215. doi:10.1037//0033-295X.84.2.191
- Bond, C., Woods, K., Humphrey, N., Symes, W., & Green, L. (2013). Practitioner review: The effectiveness of solution focused brief therapy with children and families: A systematic and critical evaluation of the literature from 1990–2010. *Journal of Child Psychology and Psychiatry*, 54(7), 707-723.
- Brown, D. J., Fletcher, D., Henry, I., Borrie, A., Emmett, J., Buzza, A., & Wombwell, S. (2015). A British university case study of the transitional experiences of student-athletes. *Psychology of Sport and Exercise*, 21, 78–90. <https://doi.org/10.1016/j.psychsport.2015.04.002>

- Buenaventura, E. R., & Saroca Jr, D. B. (2024). Self-efficacy and sports performance level of secondary student-athletes: Training implications. *Pedagogy Review*, 4(1), 120-134. <https://doi.org/10.62718/vmca.pr-ijetas.4.1.SC-1224-009>
- Byiers, B. J., Reichle, J., & Symons, F. J. (2012). Single-subject experimental design for evidence-based practice. *10.1044/1058-0360(2012/11-0036)*
- Chen, H.-C., & Wang, H.-C. (2026). Future planning for athletes: A social cognitive career theory explanation of student-athletes' self-efficacy and reflection. *Frontiers in Psychology*, 17, Article 1828527. <https://doi.org/10.3389/fpsyg.2026.1828527>
- Cosh, S., & Tully, P. J. (2014). "All I have to do is pass": a discursive analysis of student-athletes' talk about prioritizing sport to the detriment of education to overcome stressors encountered in combining elite sport and tertiary education. *Psychology of Sport and Exercise*, 15, 180–189. <https://doi.org/10.1016/j.psychsport.2013.10.015>
- Cosh, S., & Tully, P. J. (2015). Stressors, coping, and support mechanisms for student athletes combining elite sport and tertiary education: Implications for practice. *The Sport Psychologist*, 29(2), 120-133.
- Cui, J. (2025). The impact of solution-focused group intervention on the coping ability of young women's soccer players. *Youth Sport*, (4), 41–49. <https://doi.org/10.26944/j.cnki.CN10-1081/G8.2025.04.010>
- de Shazer, S. (1994). *Words were originally magic*. Norton.
- Franklin, C., & Reddy, S. M. (2017). Solution-focused couple and family therapy. In J. Lebow, A. Chambers, & D. Breunlin (Eds.), *Encyclopedia of couple and family therapy* (pp. 1–8). Springer.
- Gülaçtı, A., Kılıç, N., Tırnak, Ş. B., & Atalık, G. KONUŞMA SESİ BOZUKLUĞU ŞİKAYETİYLE BAŞVURAN ÇOCUKLARIN DİL BECERİLERİNİN İNCELENMESİ: GAZİ ÜNİVERSİTESİ ÖRNEKLEMİ. *İçindekiler*, 37(5), 40.
- Høigaard, R., & Jørgensen, A. (2000). *Veiledningssamtaler i idrett*. [Counselling in Sport]. Kristiansand: Norwegian Academic Press.
- Høigaard, R., & Johansen, B. T. (2004). The solution-focused approach in sport psychology. *The Sport Psychologist*, 18(2), 218-228.
- HU, H. J., WU, J. Y., WEN, T., CHE, Y. M., XU, X. Q., & SONG, S. H. (2024). The influence of psychological resilience on mental fatigue in adolescent athletes: The mediating role of coping styles. *Hubei Sports Science and Technology*, 43(2), 65-69.
- Ines, J. V. (2021). Stress and coping strategies of college student-athletes. In *DLSU Research Congress* (pp. 1-6).
- Koçak, Ç. V. (2019). The relationship between self-efficacy and athlete burnout in elite volleyball players. *Pedagogics, psychology, medical-biological problems of physical training and sports*, (5), 231-238.
- Linnér, L., Stambulova, N., & Ziegert, K. (2021). Maintaining dual career balance: A scenario perspective on Swedish university student-athletes' experiences and coping. *Scandinavian Journal of Sport and Exercise Psychology*, 3, 47-55. doi: 10.7146/sjsep.v3i.125734
- Mao, Z. (2025). Advancements in research on psychological and emotional aspects of student-athletes. *Frontiers in psychology*, 16, 1645177. <https://doi.org/10.3389/fpsyg.2025.1645177>
- Peng, F., & Zhang, L. W. (2021). The relationship of competitive cognitive anxiety and motor performance: Testing the moderating effects of goal orientations and self-efficacy

- among Chinese collegiate basketball players. *Frontiers in psychology*, 12, 685649. <https://doi.org/10.3389/fpsyg.2021.685649>
- Sancak, E., Körük, S., & Kurt, A. A. (2026). A Pilot Study of Solution-Focused Goal-Settings Group Counseling on Adolescent Students. *International Journal of Group Psychotherapy*, 76(2), 311-335. DOI: 10.1080/00207284.2025.2557289
- Xie, Y. (1998). Reliability and validity of the simplified coping style questionnaire. *Chinese Journal of Clinical Psychology*.
- Yu, H., Li, M. L., Li, Z. X., Xiang, W. Y., Yuan, Y. W., Liu, Y. Y., Li, Z., & Xiong, Z. Z. (2020). Coping style, social support and psychological distress in the general Chinese population in the early stages of the COVID-19 epidemic. *BMC Psychiatry*, 20(426), 1-11. <https://doi.org/10.1186/s12888-020-02826-3>
- Yu, W., Zhou, S., & Zhou, Y. (2024). Intervention on mathematics self-efficacy: solution-focused brief therapy. *Psychology Research and Behavior Management*, 129-145.
- Zhao, G., Zhang, Z., & Guan, X. (2009). Application of solution-focused brief counseling in sport psychology. *China Sport Science and Technology*, 45(3), 61-67. <https://doi.org/10.16470/j.csst.2009.03.014>
- Zeng, G., Fung, S. F., Li, J., Hussain, N., & Yu, P. (2020). Evaluating the psychometric properties and factor structure of the general self-efficacy scale in China. *Current Psychology*, 1-11. DOI: 10.1007/s12144-020-00924-9