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PSYCHOLOGICAL SKILLS TRAINING IN APPLIED SPORT: COACH AND ATHLETE PERSPECTIVES ON LEARNING PATHWAYS, SUPPORT, AND PERCEIVED DELIVERY

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ABSTRACT

Psychological Skills Training (PST) is widely recognized as part of athlete preparation and performance development, but less is known about how PST is learned, supported, delivered, and experienced in applied sport settings. This study compared coach and athlete perspectives on PST, with particular attention to familiarity, learning pathways, support structures, delivery, perceived effectiveness, and motivation for further development. A cross-sectional online survey was completed by 49 coaches and 94 athletes from a range of sports, with experience from two years or fewer to over ten years and from regional to international or elite level. Comparative analyses were restricted to conceptually similar items across the two surveys and were interpreted descriptively rather than causally. Coaches reported significantly greater familiarity with PST, higher levels of self-directed learning, stronger motivation to continue developing PST-related knowledge, and greater perceived importance of hands-on practice. Athletes reported significantly greater satisfaction with perceived current PST delivery, while no significant group difference emerged in perceived effectiveness of current methods. Exploratory subgroup analyses indicated that motivation to continue developing PST knowledge differed across competitive levels and was highest at international level. Among coaches, perceived effectiveness also differed by the performance level of the athletes they coached. These findings suggest that demand for further development may be particularly evident in higher-performance contexts.

The clearest descriptive contrast concerned learning pathways. Athletes most commonly reported first learning about PST through their coach, whereas coaches most commonly reported first learning through online resources, workshops, and books or articles. Both groups also reported limited input from sport psychologists. These findings suggest that PST knowledge in applied sport may move through an uneven chain of transmission, with coaches acting as the principal route through which athletes encounter PST, while coaches themselves often learn through informal and weakly supported routes. All findings reflect coach- and athlete-reported perceptions rather than objectively assessed performance outcomes and should be interpreted with reference to the study's descriptive design, non-validated survey instruments, and modest, unevenly distributed subgroup sizes. The study highlights the need to examine not only whether PST is valued, but how it is learned, supported, and translated into practice across the sporting system.

Keywords: *Psychological Skills Training, Coaches, Athletes, Sport Psychology, Coach Education, Applied Sport*

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INTRODUCTION

Psychological Skills Training (PST) is familiar within sport psychology and is commonly presented as an important part of athlete preparation and performance development. Across a range of sports and competitive levels, psychological skills have been associated with confidence, attentional control, pressure

management, competition readiness, and performance consistency (Birrer & Morgan, 2010; Weinberg & Gould, 2023). In applied settings, PST is often treated as a practical strand of performance preparation that sits alongside physical, technical, and tactical work rather than outside it. That broad applied acceptance, however, should not be mistaken for eviden-

tial certainty. PST became prominent in sport long before questions about how it is taught, supported, and evaluated in real settings were fully resolved (Zakrajsek & Blanton, 2017).

Lange-Smith et al. (2024), in a review of reviews, reported that 90% of included reviews concluded that PST could positively influence performance, yet 97% of those reviews were rated critically low in methodological quality. A recent meta-analysis reached a similar conclusion at the level of primary studies: psychological skills training showed a significant moderate effect on athletic performance compared with controls, but the effect was no longer significant once non-randomized trials and subjective performance outcomes were removed in sensitivity analyses (Reinebo et al., 2024).

These findings matter not only because they raise concerns about the robustness of the evidence base, but because they suggest that PST's applied prominence is not matched by equally clear evidence about how it is learned, supported, and translated into practice. This study therefore focuses on how PST is learned, delivered, and supported in applied practice.

Conceptual precision matters here as much as methodological quality. Dohme et al. (2019) distinguished psychological skills from broader psychological characteristics, helping to position psychological skills as learned and developable methods rather than relatively stable traits. This distinction matters because it shifts the focus of PST away from vague references to desirable personal qualities and towards acquisition, application, and development. If psychological skills are something that can be taught, refined, and embedded, then the question of who teaches them, how they are taught, and how consistently they are supported becomes crucial.

Although PST is often discussed from the perspective of athletes or specialist practi-

tioners, coaches remain central actors within most applied sporting environments (Freitas et al., 2013). They plan training, structure feedback, guide performance preparation, and frequently act as the most regular point of contact through which athletes encounter psychologically oriented ideas and practices. Thelwell et al. (2008) showed that coaches themselves use skills such as self-talk, imagery, relaxation, and goal setting within their own work, while Camiré and Trudel (2014) showed that coaches can integrate psychological skills into practice when given practical, user-friendly support. More recent work has gone further, showing that coaches can play an active role in developing psychological attributes in athletes when supported with clear, actionable strategies embedded in everyday coaching practice (Moodie et al., 2023; Wixey et al., 2024). These studies are important because they move PST away from being viewed solely as the domain of the sport psychologist and towards a more realistic understanding of coaching as psychologically significant work.

At the same time, there are reasons to think the system surrounding that work may remain underdeveloped. Keegan et al. (2022), in a qualitative process evaluation of a state sport academy's psychology service, highlighted the importance of context, practitioner competence, and collaboration in determining how psychological provision is experienced. Likewise, broader coaching literature suggests that effective coaching depends not only on technical expertise, but on the integrated use of professional, interpersonal, and intrapersonal knowledge (Côté & Gilbert, 2009). If coaches are expected to act as practical agents in PST delivery, then the educational and organizational structures surrounding them become highly consequential. The issue is not only whether coaches value PST, but whether the routes through which they learn and sustain

that knowledge are coherent enough to support consistent, evidence-informed practice.

A comparative coach–athlete perspective is therefore valuable. If coaches are one of the main routes through which athletes encounter PST, then it is important to examine not only what coaches report, but how athletes understand, receive, and evaluate that provision. Paquette and Sullivan (2012) found that coaches' PST-related behaviors were linked to athletes' perceptions of their coach and their own self-confidence, although coaches' PST attitudes did not significantly predict their behaviors. This suggests that what coaches do, more than their stated attitudes, is linked to how athletes experience psychological skills work in practice. A comparative design allows for more specific questions. Are coaches and athletes similarly familiar with PST? Where do they each report first learning about it? Do athletes experience support structures in the same way coaches describe them? And do both groups appear to be operating from the same assumptions about delivery and current practice?

This study was designed to address these questions descriptively. Rather than evaluating a PST intervention or directly assessing athlete psychological skill development, it compared coach and athlete perspectives on familiarity with PST, routes of learning, perceived support, delivery, and selected barriers within applied sport settings. In doing so, it aimed to examine how PST appears to move through the sporting system and where asymmetries, support weaknesses, or points of friction may emerge between the point of delivery and the point of experience.

METHOD

Research Design

This study employed a cross-sectional comparative survey design using two related online questionnaires, one completed by

coaches and one by athletes. The purpose of the design was descriptive and exploratory. It was intended to capture reported familiarity with PST, perceived learning pathways, current support and delivery, and selected barriers across two groups occupying different roles within applied sport settings. The design was not intended to evaluate an intervention or to function as a psychometric assessment of athlete psychological skill development. Accordingly, the findings should be interpreted as descriptive of reported perceptions and practices rather than as evidence of objective intervention effectiveness.

Ethical Approval

Ethical approval was granted by the University of Sunderland ethics committee for both the coach survey (approval reference: 029631) and the athlete survey (approval reference: 029633). All participants provided informed consent prior to participation, and no directly identifying information was collected. Before completing the Qualtrics survey, participants created a unique code that was attached to their response. This allowed participants to request withdrawal of their data within three weeks of submission by providing their unique code, without linking their identity to their survey responses. Responses were therefore analyzed without personally identifying information and reported only at group level.

Participants

The coach sample consisted of 49 completed responses. Coaches represented a range of experience levels: 6 reported two years or fewer of coaching experience, 14 reported 3–10 years, and 29 reported more than 10 years. Coaches worked with athletes at regional ($n = 14$), national ($n = 13$), international ($n = 10$), and elite ($n = 12$) levels. The athlete sample consisted of 94 complet-

ed responses. Competitive level was reported by 90 athletes: regional ($n = 31$), national ($n = 23$), international ($n = 23$), and elite ($n = 13$). Four athletes did not report their competitive level and were excluded from performance-level subgroup analyses.

Some incomplete responses in both samples reached relatively advanced stages of the survey (maximum progress: coaches 97%, athletes 96%), which could, in principle, introduce selection bias if late-question dropout was not random. This is noted as a limitation, although the missing-data pattern did not appear systematic in its distribution across the key analytic variables. The two groups were independent rather than paired, meaning that athletes could not be linked to their own coaches. The study therefore compares two populations operating within overlapping sport contexts rather than matched coach–athlete pairs.

Survey Instruments

Two researcher-developed questionnaires were used, one framed from the coach perspective and one from the athlete perspective. Both were designed as descriptive and exploratory instruments rather than validated psychometric tools, reflecting the study's aim to capture reported familiarity with PST, learning pathways, perceptions of delivery and support, and barriers to engagement across two groups occupying different roles in applied sport. This purpose did not require validated psychometric measurement of psychological skill competence. Established instruments designed for that purpose, such as the Ottawa Mental Skills Assessment Tool (OMSAT-3; Durand-Bush et al., 2001) or the Test of Performance Strategies (TOPS; Thomas et al., 1999), assess the frequency or quality of psychological skill use in athletes and were not designed to capture the system-level perceptual variables central to this study. Using them here would have

introduced construct mismatch rather than methodological rigor. The surveys contained multiple-choice, multi-select, and 0–10 rating-scale items, plus a 0–4 frequency item (0 = Never, 4 = Always). Survey items relating to psychological skills were informed by established PST literature identifying commonly used skills in applied sport contexts (Birrer & Morgan, 2010; Dohme et al., 2019; Thelwell et al., 2008). Both instruments were piloted informally prior to distribution to check for clarity and face validity. The pilot review involved sharing the questionnaires with a small number of colleagues with relevant applied or academic experience, who checked the surveys for clarity of wording; this review did not identify a need for substantive changes to item content or structure. No formal validity or reliability testing was undertaken; this is acknowledged as a limitation, and the instruments should accordingly be regarded as descriptive and exploratory tools rather than psychometrically validated measures.

Direct comparisons between groups were restricted to items judged sufficiently similar in wording and meaning to support cautious interpretation.

Procedure

Both surveys were administered online. Participants were recruited through sport coaching networks and social media channels associated with sport organizations. Eligibility criteria required coaches to be actively involved in coaching competitive athletes and to be aged 18 or over; athletes were required to be actively competing and aged 18 or over. Participants were provided with information about the purpose of the study, confidentiality arrangements, and their rights as participants before providing consent and completing the questionnaire. Responses were anonymized and analyzed at group level.

Data Analysis

Data were analyzed primarily using descriptive statistics. Frequencies and percentages were calculated for categorical and multi-response items, while means, standard deviations, and medians were calculated for rating-scale items where appropriate. Comparative analyses between coaches and athletes were restricted to conceptually comparable items. Because the samples were independent and the variables were measured using single-item ordinal rating scales, Mann–Whitney *U* tests were used for between-group comparisons. This non-parametric approach was considered the most appropriate given the level of measurement, the independence of the two groups, and the exploratory nature of the design. The analysis was therefore intended to identify broad comparative patterns rather than to support strong causal or predictive inference. To examine relationships between key variables within each group, Spearman's rho correlations were calculated separately for coaches and athletes, consistent with the ordinal level of measurement. Exploratory subgroup comparisons by coaching experience and performance level were conducted using Kruskal–Wallis *H* tests, with findings interpreted cautiously given the small subgroup sizes. To avoid very small subgroup sizes, coaching experience was collapsed into three categories (≤ 2 years, 3–10 years, and > 10 years) for exploratory subgroup analyses. Given the exploratory nature of the subgroup analyses, no adjustment was made for multiple comparisons and no post hoc pairwise comparisons were conducted following the Kruskal–Wallis tests. Significant omnibus

tests were therefore interpreted as indicating differences across the subgroup distributions, while differences between individual subgroup means were treated descriptively.

RESULTS

A total of 49 coaches and 94 athletes completed the survey. Because some items contained minor missing data, valid sample sizes varied across analyses and are reported within each table. Comparative analysis was restricted to variables that were sufficiently similar across the two surveys to allow cautious interpretation. The results should therefore be read as a comparison of reported perspectives rather than as an evaluation of actual PST outcomes.

Across the directly comparable rating variables, coaches reported significantly greater familiarity with PST, higher self-directed learning, greater perceived importance of hands-on practice, and stronger motivation to continue developing PST-related knowledge. Athletes, by contrast, reported significantly greater satisfaction with perceived current PST delivery, while no statistically significant group difference was observed in perceived effectiveness of current methods. Rank-biserial effect sizes indicated that the largest between-group differences concerned self-directed learning, familiarity with PST, and perceived importance of hands-on practice, with smaller effects for satisfaction with perceived current PST delivery and motivation to continue developing PST. Full results for these comparisons are presented in Table 1.

Table 1. *Comparative Ratings of Key PST Variables in Coaches and Athletes*

Variable	Coaches <i>n</i>	Coaches <i>M (SD)</i>	Coaches <i>Mdn</i>	Athletes <i>n</i>	Athletes <i>M (SD)</i>	Athletes <i>Mdn</i>	Mann– Whitney <i>U</i>	<i>p</i>	Rank- biserial <i>r</i>
Familiarity with PST	48	7.23 (2.50)	7.50	87	5.38 (2.90)	6.00	2884.0	< .001	.38
Self-directed learning	48	5.69 (2.70)	6.00	89	3.48 (2.75)	3.00	3076.0	< .001	.44
Importance of hands-on practice	49	8.47 (1.78)	9.00	89	7.34 (2.14)	7.00	2862.0	.002	.31
Satisfaction with current PST delivery	49	3.90 (2.54)	4.00	90	5.11 (2.60)	5.00	1597.5	.007	–.28
Perceived effectiveness of current methods	49	6.16 (1.84)	6.00	88	5.40 (2.32)	6.00	2462.0	.164	.14
Motivation to continue developing PST	49	8.51 (1.66)	9.00	88	7.28 (2.59)	7.50	2715.5	.010	.26

Note. PST = Psychological Skills Training. All variables were measured on 0–10 rating scales. Mann–Whitney *U* tests were used for between-group comparisons. Rank-biserial *r* was calculated from *U*, with positive values indicating higher coach ratings and negative values indicating higher athlete ratings. All *p*-values are two-tailed.

The familiarity difference was accompanied by a marked difference in self-directed learning, with coaches reporting higher levels of independent engagement with PST-related knowledge. Athletes reported greater satisfaction with current PST delivery than coaches. No significant between-group difference was found for perceived effectiveness, with ratings

in both groups remaining within the mid-range of the scale.

To examine relationships between key variables within each group, Spearman's rho correlations were calculated separately for coaches and athletes. Results are presented in Tables 2 and 3.

Table 2. *Spearman Correlations Between Key PST Variables — Coaches (*n* = 48–49)*

Variable	1	2	3	4	5	6
1. Familiarity with PST	—					
2. Self-directed learning	.18	—				
3. Importance of hands-on practice	.44**	.09	—			
4. Satisfaction with current PST delivery	–.18	.23	–.06	—		
5. Perceived effectiveness of current methods	.19	.46**	.27	.29*	—	
6. Motivation to continue developing PST	.28	.12	.47***	–.35*	.31*	—

Note. PST = Psychological Skills Training. All variables were measured on 0–10 rating scales. Correlation coefficients are Spearman's rho. * *p* < .05; ** *p* < .01; *** *p* < .001. All *p*-values are two-tailed.

Table 3. *Spearman Correlations Between Key PST Variables — Athletes (n = 87–90)*

Variable	1	2	3	4	5	6	7
1. Familiarity with PST	—						
2. Self-directed learning	.50***	—					
3. Importance of hands-on practice	.32**	.26*	—				
4. Satisfaction with current PST delivery	.39***	.36***	.28**	—			
5. Perceived effectiveness of current methods	.52***	.42***	.28**	.68***	—		
6. Guidance from coach	.29**	.19	.25*	.67***	.49***	—	
7. Guidance from sport psychologist	.43***	.54***	.37***	.49***	.35***	.36***	—

Note. PST = Psychological Skills Training. All variables were measured on 0–10 rating scales. Correlation coefficients are Spearman's rho. * $p < .05$; ** $p < .01$; *** $p < .001$. All p -values are two-tailed.

Among coaches, the strongest associations were between hands-on importance and motivation to develop PST ($r_s = .47$, $p < .001$), and between self-directed learning and perceived effectiveness ($r_s = .46$, $p = .001$). A significant negative association emerged between satisfaction with current delivery and motivation to continue developing ($r_s = -.35$, $p = .012$), indicating that coaches who were less satisfied with current provision were, if anything, more motivated to keep developing their PST knowledge.

Among athletes, the strongest associations were between satisfaction with delivery and both perceived effectiveness ($r_s = .68$, $p < .001$) and guidance received from coaches ($r_s = .67$, $p < .001$), indicating that athlete-side satisfaction and effectiveness ratings were tightly bound to coach input. Familiarity with PST was moderately to strongly associated with perceived effectiveness ($r_s = .52$), self-directed learning ($r_s = .50$), and guidance from a sport psychologist ($r_s = .43$), suggesting that greater athlete familiarity may partly reflect differential access to structured support rather than self-directed engagement alone.

Exploratory subgroup comparisons were conducted using Kruskal–Wallis tests. Among coaches, familiarity with PST differed across coaching-experience groups ($H = 8.56$, $p = .014$; Table 4). Descriptively, mean fa-

miliarity was 6.00 among coaches with two or fewer years of experience and 7.89 among those with more than ten years. Familiarity also differed across performance-level groups ($H = 12.19$, $p = .007$), with descriptive means ranging from 5.50 at the regional level to 8.64 among coaches working with elite athletes. Perceived effectiveness also differed across performance-level groups ($H = 10.44$, $p = .015$), with the highest descriptive mean observed among coaches of international athletes. Among athletes, guidance received from coaches differed across competitive-level groups ($H = 9.36$, $p = .025$), with descriptive means of 3.48 at the regional level and 5.83 at the international level. Athlete familiarity and perceived effectiveness did not differ significantly across competitive levels. As no post hoc pairwise comparisons were conducted, these descriptive differences should not be interpreted as evidence of significant differences between specific performance-level groups.

Extended subgroup analyses (Tables 5–6) identified several omnibus differences across performance-level groups. Among coaches, hands-on practice ($H(3) = 8.16$, $p = .043$), frequency of PST use ($H(3) = 10.22$, $p = .017$), and motivation to continue developing PST knowledge ($H(3) = 11.42$, $p = .010$) differed across performance levels. Descriptively, hi-

gher mean scores on several variables were observed among coaches working at international or elite level. Among athletes, guidance from a sport psychologist ($H(3) = 9.34$, $p = .025$), frequency of PST use ($H(3) = 10.41$, $p = .015$), and motivation to continue developing PST knowledge ($H(3) = 24.01$, $p < .001$) differed across competitive levels.

Descriptively, motivation was highest among international athletes ($M = 8.83$) and lowest among regional athletes ($M = 5.63$). These descriptive patterns should be interpreted cautiously because no post hoc pairwise comparisons were undertaken and multiple exploratory comparisons were conducted without adjustment.

Table 4. *Coach Ratings by Coaching Experience*

<i>Variable</i>	≤ 2 yrs ($n = 6$) <i>M (SD)</i>	3–10 yrs ($n = 14$) <i>M (SD)</i>	>10 yrs ($n = 29$) <i>M (SD)</i>	<i>H(2)</i>	<i>p</i>	ϵ^2
Familiarity with PST	6.00 (2.37)	6.43 (1.99)	7.89 (2.62)	8.56	.014	.18
Self-directed learning	6.17 (2.79)	5.29 (2.46)	5.79 (2.86)	0.46	.793	.01
Importance of hands-on practice	8.50 (2.35)	7.79 (1.81)	8.79 (1.61)	3.31	.191	.07
Satisfaction with current delivery	5.33 (3.20)	4.93 (1.90)	3.10 (2.43)	5.22	.074	.11
Perceived effectiveness	6.50 (1.52)	5.93 (1.77)	6.21 (1.97)	0.49	.784	.01
Motivation to continue developing	9.33 (0.82)	8.07 (1.82)	8.55 (1.68)	1.90	.387	.04
Frequency of PST use	2.33 (0.82)	2.29 (0.73)	2.59 (1.05)	1.68	.431	.04

Note. PST = Psychological Skills Training. Sample sizes varied slightly because one response was missing for each of the familiarity and self-directed learning analyses, which included 28 coaches with more than 10 years' experience. Frequency of use scored 0 (Never)–4 (Always); all other variables were rated 0–10. Kruskal–Wallis H tests; ϵ^2 = epsilon-squared effect size.

Table 5. *Coach Ratings by Performance Level Coached*

<i>Variable</i>	Regional ($n = 14$) <i>M (SD)</i>	National ($n = 13$) <i>M (SD)</i>	International ($n = 10$) <i>M (SD)</i>	Elite ($n = 12$) <i>M (SD)</i>	<i>H(3)</i>	<i>p</i>	ϵ^2
Familiarity with PST	5.50 (2.65)	7.46 (2.30)	7.80 (1.87)	8.64 (2.01)	12.19	.007	.26
Self-directed learning	5.07 (2.13)	5.00 (2.48)	7.50 (2.17)	5.64 (3.50)	5.67	.129	.12
Importance of hands-on practice	7.79 (1.89)	8.08 (1.93)	8.70 (1.64)	9.50 (1.17)	8.16	.043	.17
Satisfaction with current delivery	4.64 (2.24)	4.08 (1.85)	3.50 (2.27)	3.17 (3.56)	2.53	.469	.05
Perceived effectiveness	5.36 (1.65)	5.62 (1.12)	7.70 (1.77)	6.42 (2.07)	10.44	.015	.22
Motivation to continue developing	7.64 (1.74)	7.92 (1.93)	9.60 (0.70)	9.25 (0.97)	11.42	.010	.24
Frequency of PST use	1.86 (0.77)	2.62 (0.77)	2.90 (0.57)	2.67 (1.23)	10.22	.017	.21

Note. PST = Psychological Skills Training. Sample sizes varied slightly because one response was missing for each of the familiarity and self-directed learning analyses, which included 11 elite coaches. Frequency of use scored 0 (Never)–4 (Always); all other variables were rated 0–10. Kruskal–Wallis H tests; ϵ^2 = epsilon-squared effect size.

Table 6. Athlete Ratings by Competitive Level

Variable	Regional (<i>n</i> = 31) <i>M</i> (<i>SD</i>)	National (<i>n</i> = 23) <i>M</i> (<i>SD</i>)	International (<i>n</i> = 23) <i>M</i> (<i>SD</i>)	Elite (<i>n</i> = 13) <i>M</i> (<i>SD</i>)	<i>H</i> (3)	<i>p</i>	ε ²
Familiarity with PST	4.43 (2.94)	5.24 (3.02)	6.39 (2.39)	6.00 (3.03)	6.43	.093	.08
Self-directed learning	3.00 (2.35)	3.35 (3.11)	3.96 (2.75)	4.08 (3.03)	2.38	.497	.03
Guidance from coach	3.48 (2.26)	4.74 (3.02)	5.83 (2.39)	4.69 (3.12)	9.36	.025	.11
Guidance from sport psychologist	1.29 (2.27)	1.78 (2.98)	3.43 (3.81)	3.92 (3.32)	9.34	.025	.11
Importance of hands-on practice	6.94 (2.00)	7.18 (2.34)	7.74 (1.98)	7.85 (2.41)	3.79	.285	.04
Satisfaction with current delivery	4.87 (1.75)	4.78 (2.78)	5.52 (3.10)	5.54 (3.13)	1.92	.590	.02
Perceived effectiveness	4.97 (1.84)	5.17 (2.57)	5.78 (2.61)	6.08 (2.25)	3.86	.277	.04
Motivation to continue developing	5.63 (2.36)	7.77 (2.62)	8.83 (1.47)	7.54 (2.73)	24.01	<.001	.28
Frequency of PST use	1.90 (1.19)	2.26 (0.81)	2.65 (0.93)	2.85 (1.46)	10.41	.015	.12

Note. PST = Psychological Skills Training. Four athletes did not report their competitive level and were excluded from these subgroup analyses. Sample sizes varied slightly for individual items because of missing responses. Frequency of use scored 0 (Never)–4 (Always); all other variables were rated 0–10. Athlete comparisons by years-in-sport showed no significant differences on any variable (all *p* ≥ .49) and are not tabled. Kruskal–Wallis *H* tests; ε² = epsilon-squared effect size.

One of the clearest descriptive contrasts concerned where PST was first learned. Coaches most commonly reported first learning about PST through online resources, workshops or seminars, and books or articles. Athletes, by contrast, most commonly reported first learning about PST through their coach. These findings are presented in Table 7.

Table 7. First Reported Source of Learning About PST

First learning source	Coaches <i>n</i> (%)	Athletes <i>n</i> (%)
Coach	—	45 (50.6%)
Online resources	15 (30.6%)	13 (14.6%)
Workshops/seminars	12 (24.5%)	3 (3.4%)
Books/articles	9 (18.4%)	6 (6.7%)
Teammates/peers	7 (14.3%)	7 (7.9%)
Sport psychologist	6 (12.2%)	15 (16.9%)

Note. PST = Psychological Skills Training. Coach data represent single-choice responses (*n* = 49 valid responses). Athlete data represent single-choice responses from 89 valid responses; five athletes did not complete this item. The coach column does not include a ‘Coach’ category as this was not presented as an option in the coach survey.

This pattern indicates that athletes primarily encounter PST through coaches, whereas coaches themselves often report learning about PST through relatively informal or self-directed routes. The significance of this pattern lies less in whether one route is inherently superior than in what it implies about how psychological knowledge appears to travel through applied sport settings.

Both groups broadly recognized and re-

ported using a similar cluster of core psychological skills. Goal setting, pre-competition preparation, mental imagery, relaxation techniques, self-talk, and focus techniques were prominent in both surveys, though coaches reported higher familiarity and higher use across

most of these skills. These data are presented in Table 8. Across both groups, familiarity consistently exceeded reported use, suggesting that awareness of psychological skills does not straightforwardly translate into their application in practice.

Table 8. *Comparison of Core Psychological Skills Reported by Coaches and Athletes*

Psychological skill	Coaches		Athletes	
	Familiar <i>n</i> (%)	Use <i>n</i> (%)	Familiar <i>n</i> (%)	Use <i>n</i> (%)
Goal setting	47 (95.9%)	37 (75.5%)	80 (89.9%)	48 (54.5%)
Pre-competition preparation	38 (77.6%)	37 (75.5%)	64 (71.9%)	52 (59.1%)
Mental imagery	41 (83.7%)	30 (61.2%)	66 (74.2%)	48 (54.5%)
Relaxation techniques	39 (79.6%)	27 (55.1%)	65 (73.0%)	47 (53.4%)
Self-talk	40 (81.6%)	26 (53.1%)	60 (67.4%)	40 (45.5%)
Focus techniques	36 (73.5%)	30 (61.2%)	46 (51.7%)	40 (45.5%)

Note. Percentages are calculated from the total number of valid responses for each group (coaches *n* = 49; athletes *n* = 89 for familiarity, *n* = 88 for use). Items were presented as multi-select checklists, so percentages do not sum to 100%.

Support and delivery findings deepen the comparative picture. Coaches reported low guidance through National Governing Body (NGB) coach education and limited support from sport psychologists in helping them integrate PST into practice. Athletes, meanwhile, reported moderate guidance from coaches but very limited guidance from sport psycholo-

gists, with a median of 0.00 on that item. Athletes also reported that PST was, in some cases, not delivered at all (17 of 90 valid responses, 18.9%). Both groups appear to be operating in environments where specialist support remains limited. A summary of these findings is presented in Table 9.

Table 9. *Descriptive Summary of Support, Delivery and Barrier Patterns in Coaches and Athletes*

Variable	Coaches	Athletes
Formal guidance/coach guidance	NGB guidance: <i>M</i> = 2.90, <i>Mdn</i> = 3.00	Guidance from coach: <i>M</i> = 4.58, <i>Mdn</i> = 5.00
Support from sport psychologist	<i>M</i> = 3.06, <i>Mdn</i> = 2.00	<i>M</i> = 2.33, <i>Mdn</i> = 0.00
Satisfaction with current PST delivery	<i>M</i> = 3.90, <i>Mdn</i> = 4.00	<i>M</i> = 5.11, <i>Mdn</i> = 5.00
Main first learning route	Informal/self-directed routes dominate	Coach dominates
Most common barrier	Lack of access to experienced support	Lack of knowledge or resources, followed by time

Note. NGB = National Governing Body. Support items were rated on 0–10 scales. Satisfaction data are taken from Table 1. Barrier items were presented as closed multi-select checklists with no free-text option. The table identifies the most commonly reported barriers in each group rather than presenting the full frequency distributions.

Three further athlete-only variables were explored descriptively. When asked about their primary motivator for engaging with

PST, athletes most commonly cited improved performance (47 of 88 valid responses, 53.4%), followed by reducing stress or

anxiety (17, 19.3%) and enhanced mental well-being (8, 9.1%). The dominance of a performance rationale aligns with the broader applied framing of PST in competitive sport, though the proportion citing well-being and stress reduction suggests athletes also understand PST in ways that extend beyond outcome-focused goals. On the question of sustainability, 79 of 88 athletes (89.8%) reported that the psychological skills they had learned felt sustainable for long-term use. On transferability, 85 of 88 (96.6%) felt those skills extended to areas of their lives beyond sport. These figures should be treated with caution given the self-report nature of the data and the absence of longitudinal follow-up, but they indicate that athletes who have engaged with PST generally perceive it as durable and broadly applicable rather than narrowly sport-specific.

DISCUSSION

This study compared coach and athlete perspectives on PST in applied sport settings, focusing on familiarity, learning pathways, delivery, support, and current provision. Coaches and athletes do not see PST in entirely different ways; the more important finding is that they occupy different positions within the system through which PST is learned and delivered. Coaches appear to function as the principal transmission point through which athletes encounter PST, yet coaches themselves often report learning through routes that are informal, self-directed, and unevenly supported by formal educational structures. That asymmetry shifts attention away from whether PST is valued and towards how psychological knowledge circulates through sport. This contrast in learning pathways is especially significant in this respect. Over half of the athlete sample reported first learning about PST through their coach, whereas coaches most commonly re-

ported first learning through online resources, workshops, and books or articles. Self-directed learning is not inherently weak, but it does suggest that PST delivery in applied sport may depend more on coach initiative than on coherent educational infrastructure. If coaches are the main route through which athletes encounter PST, then the quality, consistency, and evidential basis of coach learning become matters of practical consequence. In this respect, the present findings align with Paquette and Sullivan's (2012) finding that coaches' PST behaviors are associated with athletes' perceptions of their coach and their own self-confidence, and with Camiré and Trudel's (2014) argument that coaches integrate psychological skills more effectively when support is practical, user-friendly, and guided.

The familiarity results reinforce this interpretation. Coaches reported significantly greater familiarity with PST than athletes, suggesting that knowledge remains concentrated more strongly on the delivery side of the relationship than on the receiving side. The self-directed learning data further support this. Coaches reported substantially higher independent engagement with PST-related learning than athletes, suggesting that much of the system's knowledge development may occur through coach initiative rather than stronger formal pathways. Athletes, by contrast, appear to rely more on what is transmitted to them through coaching. Athletes' access to PST knowledge may therefore be more dependent on coach interpretation than on direct specialist provision or structured educational routes.

The correlation data reinforce this association. Among athletes, guidance received from coaches was strongly associated with satisfaction with PST delivery ($r_s = .67, p < .001$) and perceived effectiveness of current methods ($r_s = .49, p < .001$). This suggests that athletes' experiences and evaluations of PST are close-

ly associated with the guidance they report receiving from coaches.

Both groups recognized a broadly similar cluster of psychological skills, including goal setting, pre-competition preparation, mental imagery, relaxation, self-talk, and focus techniques. This convergence suggests that coaches and athletes do not understand PST in wholly different terms. Instead, the issue appears to concern depth, support, and consistency of delivery more than outright disagreement about the broad content of PST. Pre-competition preparation was also among the most commonly reported psychological skills in use across both groups. This may indicate that PST is experienced most clearly in relation to readiness for competition, rather than as a broader developmental process embedded across everyday training and reflection. The gap between familiarity and use across both groups reinforces this analysis. If awareness of PST were sufficient to drive application, that gap would be smaller. That it is not points again towards the importance of structured support in translating knowledge into practice. This pattern is consistent with recent qualitative evidence from elite sport settings: in a study of 35 coaches and performance directors, all participants endorsed the importance of psychological skills training, yet only 11% had incorporated it effectively into their team's overall performance strategy, with unsuitable practitioners, insufficient leadership support, and lack of time identified as the primary barriers (Walsh & Du Plooy, 2023).

Coaches rated formal guidance through coach education poorly and reported relatively limited support from sport psychologists in helping them integrate PST into practice. Athletes, in turn, reported only modest guidance from coaches and extremely limited guidance from sport psychologists, with a median of zero on that item. Taken together, both sides

of the delivery relationship appear to be operating with limited formal or specialist support, even though PST is widely regarded as relevant and valuable.

This is consistent with Keegan et al. (2022), who highlighted the importance of context, practitioner competence, and collaboration in psychological provision. More recently, Müller et al. (2025) similarly identified organizational structure, clearly defined roles, access to resources, and interdisciplinary collaboration as important conditions for systematically developing mental skills in youth sport. The present findings extend this systems perspective by showing limited support on both the coach and athlete sides of PST provision.

One of the more prominent findings is that athletes reported significantly greater satisfaction with perceived PST provision than coaches. At face value, that might appear encouraging. However, a more analytical interpretation is that coaches may be more aware of what robust PST provision could look like and therefore more dissatisfied with the current system, whereas athletes may be evaluating provision against a narrower frame of reference. The correlation data are consistent with this interpretation. Among coaches, satisfaction with current delivery was negatively associated with motivation to continue developing PST ($r_s = -.35$, $p = .012$), indicating that less satisfied coaches were more rather than less driven to keep developing, a pattern more consistent with gap awareness than with disengagement. In other words, athlete satisfaction does not necessarily imply strong provision. It may instead reflect more limited expectations or fewer bases for comparison. That interpretation cannot be established from the present data and should be treated cautiously. On perceived effectiveness, both groups sat in a moderate range; this should not be misread as strong endorsement. Rather, it suggests that perceived current PST

provision is not being dismissed outright, but it is also not being experienced as especially powerful or settled. This is a more complex and more realistic finding than a simple coach–athlete disagreement narrative would allow.

The subgroup findings help explain this pattern. Motivation to continue developing PST knowledge was not associated with years of coaching or competing experience in either sample, but was strongly associated with performance level, peaking among coaches and athletes operating at international level. One possible interpretation is that this pattern reflects rising expectations or greater awareness of gaps in provision at higher competitive levels. Coaches and athletes operating in these environments may have greater exposure to PST and therefore more opportunity to identify areas in which further development would be useful.

The barrier patterns further develop the systems argument. Coaches most often identified lack of access to experienced staff, mentors, other coaches, or sport psychologists as the central barrier. Athletes, by contrast, leaned more towards lack of knowledge or resources, while also identifying time as a significant issue. Coaches appear to frame the problem in terms of support structures around delivery, whereas athletes experience the gap more directly as insufficient knowledge and resource availability at the point of use. The data do not suggest a simple delivery failure so much as a system in which psychologically relevant knowledge is present but not consistently scaffolded, resourced, or supported by specialists.

Coaches reported stronger motivation to continue developing PST-related knowledge than athletes reported for continuing their own development. That difference may partly reflect role expectations, but it also suggests that a substantial part of the developmental burden in PST may sit on the coach side of the relationship. Coaches appear willing to keep learning,

yet the support structures around that willingness remain weak. The subgroup findings reinforce this point. Coach familiarity with PST differed significantly with both experience ($H = 8.56, p = .014$) and the performance level of athletes coached ($H = 12.19, p = .007$), yet satisfaction with delivery did not differ significantly by either variable. Greater knowledge and exposure therefore did not translate into greater satisfaction with provision, suggesting that limitations in the support structures surrounding PST delivery may remain important even as familiarity and experience increase.

Here, coach education becomes significant. If coaches remain the principal conduit through which athletes encounter PST, then the educational infrastructure surrounding coaches becomes an important focus for improving the quality and consistency of PST delivery.

The present findings support the view that psychologically informed coaching depends less on the existence of abstract PST content and more on whether coaches are supported to translate that content into context-sensitive practice. Wixey et al. (2024) is useful here because it shows that coaches can directly contribute to developing psychological attributes when they are supported with clear, practically actionable strategies embedded in coaching practice.

The athlete-only findings on motivation, sustainability, and transferability expand on this. The dominance of performance motivation among athletes is not surprising given the applied competitive context of the sample. Athletes who are primarily motivated by performance improvement are likely to seek out PST when they perceive a tangible link to outcomes; the question is whether the system around them provides sufficient structure to sustain and develop that engagement. The perception that PST skills are sustainable (89.8%) and transferable to other life domains (96.6%) is notable because it sits alongside evidence of

limited and inconsistent delivery. Athletes appear to find value in what they receive despite its inconsistency; that makes the structural gaps in delivery worth addressing.

Limitations

Several limitations should be acknowledged. The two samples were independent rather than paired, meaning athletes could not be linked to their own coaches; the study therefore compares two populations operating within overlapping sport contexts rather than matched coach–athlete pairs. Relatedly, although the surveys were similar enough to allow meaningful comparison across a number of key variables, they were not identical in every item, and some comparisons remain approximate rather than exact. A further limitation concerns the measures themselves: these were researcher-developed and not validated psychometric scales, reflecting the descriptive purpose of the study. Construct depth is accordingly limited, and findings should be read as broad perceptual patterns instead of precise assessments of competence or efficacy. Future work should consider incorporating validated instruments alongside system-level survey measures, such as the OMSAT-3 (Durand-Bush et al., 2001) or TOPS (Thomas et al., 1999), where the research questions permit. The recruitment strategy also relied on sport networks and online distribution, which may have introduced self-selection bias; coaches and athletes who engaged with the survey may differ systematically from those who did not, particularly in their level of prior interest in PST. Dropout was relatively high: 27% of coach records and 31% of athlete records were incomplete, raising the possibility that non-completers differed from those who finished, though the distribution of missing data across variables did not suggest a systematic pattern. Finally, the design was cross-sectional and descriptive, so no causal conclusions can

be drawn. Given the exploratory nature of the study, multiple comparative analyses were conducted without adjustment for multiple testing. The subgroup findings should therefore be regarded as exploratory and require confirmation in larger samples.

In addition, the study-specific questionnaires underwent only an informal check for clarity by colleagues prior to distribution, with no formal assessment of content validity or reliability. Future work should incorporate structured pilot testing, such as cognitive interviewing or an expert panel rating of item relevance, and, where feasible, reliability analysis such as test–retest correlation, to strengthen confidence in the measurement properties of purpose-built survey instruments of this kind. A further limitation concerns the absence of information on the age and sex of the athletes coached. Coaches working with markedly younger athletes may play a more central role in psychological skills transmission simply because of athletes’ developmental stage, and coach-reported demand for PST knowledge may also differ when working with male versus female athletes. Future research, ideally using matched coach–athlete designs, should capture these variables directly to test whether they moderate the learning-pathway and support patterns identified here.

Future work should build on this comparative perspective by examining how PST is translated within specific coaching environments and relationships. Qualitative work would be particularly valuable in exploring how coaches interpret what they have learned, how athletes make sense of PST when it is delivered through coaching rather than specialist provision, and how educational and organizational structures shape those processes across different sports. It is also valuable to examine whether stronger specialist integration or redesigned coach education pathways improve the consistency

and clarity of PST delivery over time. Longitudinal designs would be especially informative for questions about sustainability and the developmental embedding of psychological skills across training and competition contexts.

CONCLUSION

This study suggests that coaches and athletes share a broad recognition of PST and its relevance to performance, but do not occupy the same place within the system through which PST is learned and delivered. Coaches report greater familiarity, stronger self-directed learning, and stronger developmental motivation, yet they also describe relatively weak formal support. Athletes, meanwhile, encounter PST primarily through coaches and report limited specialist input.

Taken together, the findings suggest that PST in applied sport may be less absent than unevenly supported, with coaches playing an important role in how athletes encounter it. The challenge is therefore to ensure that the support surrounding coach learning and PST delivery is sufficiently coherent and consistent.

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