Paper IV

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Assessing the individual relationships between physical test improvements and external load match parameters in male professional football players – A brief report

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Abstract

Purpose: To explore if a meaningful improvement in physical performance following an in-season strength training intervention can be related to external load match parameters at an individual level in professional male football players.

Methods: Eight male professional football players (25.4±3.1 yrs, 184.1±3.4 cm, 79.3±2.2 kg) completed a 10-week strength intervention period, in addition to football specific training and matches. Commonly used physical and external load measures were assessed pre- and post-intervention. Physical performance improvements had to exceed the measurements typical error and the smallest worthwhile difference (SWD) to be considered meaningful. SWD and non-overlap of all pairs (NAP) analysis was performed to assess external load match parameters pre- and post-intervention period. A Bayesian pairwise correlation analysis was performed to assess relationships between changes in physical performance and external load match parameters.

Results: Three players displayed meaningful improvements in 2 to 5 measures of physical performance. However, positive changes greater than SWD, and positive effects in NAP results were shown for all players in external load match parameters. Kendall's Tau correlation analysis showed evidence (base factor >3) for only one correlation (maximum speed – decelerations, $\tau = -.62$), between the changes in physical performance and external load measures, while the remaining comparisons were unrelated.

Conclusions: The findings suggest that improvements in physical performance may not necessarily translate to improvements in external load match parameters. Further research, with larger sample sizes, is needed to understand potential mechanisms between acute and chronic physical performance changes and football external load parameters during training and matches.

1 Introduction

Coaches and practitioners may interpret improvements in physical capacity of fitness tests as coinciding with improvements in physical match performance, based on the assumption of a causal relationship between these variables, with little evidence of the construct validity (e.g., dose-response relationship) (1). Well-developed physical performance is indeed important for football-specific performance. However generic measures of physical performance are influenced by numerous factors, including reliability and validity, which must be considered whenever interpretating changes in physical performance (2, 3). E.g., to minimize the impact of extraneous factors it is imperative to conduct physical testing in controlled environments, with an understanding of the equipment's inherent measurement errors. For example, common physical performance measures, such as 10- and 30-m linear sprint time, maximum speed, countermovement jump (CMJ) and leg press power have demonstrated a raw and relative (%) typical error (TE) of 0.03-0.05 seconds (TE%: ~1.3), 0.18 m/s (TE%: 1.4), 1.7 cm (TE%: 4.6) and 70 W (TE%: 4.4), respectively (2). Besides awareness of reliability, determining the meaningfulness of any observed change is an essential aspect of player monitoring, and can, as an example, be calculated by estimating the smallest worthwhile difference (SWD) (2-4). Thus, utilizing the TE and SWD may be seen as feasible criteria in the process of determining whether performance improvements or declines should be interpreted as meaningful or not.

In addition to tracking changes in physical performance over time, external load data is commonly used to monitor training and match load in football at a group and individual level (5, 6). Previous research has found strong cross-sectional associations between physical performance and match running performance in football (7, 8), and football-specific training has been shown to improve physical performance (9). Thus, recent research suggests that external load measures can be reflective of players physical performance (10). However, physical performance and external load data are known to differ between competitive levels (7) and there is a lack of knowledge on how changes in physical performance is reflected in external load parameters among highly trained players. For example, speed and explosive movements are regarded as important for football-specific performance (5, 11) and minor performance enhancements in these players may potentially influence the likelyhood of success in match-decisive actions (12, 13). Contrastingly, external load is typically assessed cross-sectionally and it is currently unknown how changes in physical performance measures impact external load in match-play. In addition, when evaluating highly trained players, subtle differences and unique variation within and between players is of upmost importance (12). Consequently, the assessment of players in elite sports necessitates a personalized approach, highlighting the significance of tailoring evaluations to individual needs (11, 14). Contrastingly, research has traditionally focused on group assessments when presenting their findings (6, 14).

With the importance of assessing individual responses in both physical test performance and external match load data, this brief report aims to explore if a meaningful improvement in players physical test performance is related to external load match performance by assessing the individual player response. This brief report is based on data from a strength intervention study by Byrkjedal et al (2023) including a team of male professional football players (15).

2 Methods

This case study originates from a 15-week study where professional footballers underwent a 10-week strength training intervention (15). Physical performance (30-m sprint, CMJ, and leg press power) was measured pre- and post-intervention, and external load match parameters were monitored in five matches at the start ("baseline") and at the end ("follow-up") of the intervention period. An overview of the study period is presented in Figure 1. This report aims to identify meaningful improvements in player's physical test performance and to explore the relationship with changes in external load match parameters. See Byrkjedal et al., 2023 (15) for more details on the original study design and data processing.

"Insert Figure 1 here"

2.1 Subjects

16 outfield players representing a Norwegian 2^{nd} tier club completed the strength intervention period and were eligible for inclusion in this brief report. However, players had to participate in a minimum of two matches (with ≥60 min playing time per match) in both the baseline- and follow-up period to be included in this brief report. Eight male players (baseline n=6, follow-up n=2) were excluded due to lack of match participation and/or sufficient playing time. Thus, a total of eight players (25.4 ± 3.1 yrs, 184.1 ± 3.4 cm, 79.3 ± 2.2 kg) are included for further analysis. Written informed consent was obtained before the study commenced. The study was performed according to the Helsinki declaration of 1975, approved by the local ethical committee at the University of Agder, Kristiansand, Norway, and Norwegian Center for Research Data (approval reference: 464080).

Briefly, physical performance testing pre- and post-intervention was completed in one day using a test-battery of 30-m sprint, CMJ, and Keiser leg press. The 30-m sprint test involved 2-4 maximal sprints with 4 min passive rest, where the best attempt was analyzed. CMJs were completed with 2-3 sets of 3 jumps performed 30 s apart, separated by 2-3 min passive rest. The mean jump height of the two best attempts was analyzed. Lower limb strength and power were assessed using a horizontal pneumatic leg press device with a 10-RM protocol (15). To be considered a meaningful improvement, performance enhancements had to exceed raw and relative (%) TE and SWD (2-4). The same test equipment and protocols as Lindberg et al (2022) (2), were used, and pre-test results were used to calculate SWD (3, 4).

Match performance was assessed with a tracking system from Catapult Sports (Vector S7, Firmware 8.10, Catapult Sports, Melbourne, Australia). Ten matches, five in the baseline and in the follow-up period were included to investigate the effect in external load match parameters after the intervention period. External load parameters, relative to playing time, included distance per min, PlayerLoad™, high-speed running (19.8-25.2 km/h; HSR) and sprint running (>25.2 km/h) distance, accelerations, decelerations and change of directions (summary of movements in the respective direction's with an intensity >2.5 m/s). The sum of these were displayed as high-intensity events (16).

2.2 Statistics

Descriptive results were calculated using Microsoft Excel (version 16.67, 255 Microsoft Corp. Redmond, WA, USA) and are reported as Mean ± SD (standard deviation). Differences in external load parameters are reported as mean with 95% upper and lower confidence limits. A nonparametric Bayesian correlation analysis was performed in JASP (Jeffreys's Amazing Statistics Program; version 0.16.1) to investigate the relationship between the physical test performance and external load parameters. The Kendall Tau correlations in combination with Bayes Factors (BF) were calculated for each comparison. The BF is one method to quantify the likelihood of an alternative hypothesis (H1) compared with the null hypothesis (H0) and is expressed as BF_{10}. A BF_{10} >3 was interpreted as evidence supporting the association. For a more comprehensive description and full interpretation of BF_{10}, see Byrkjedal et al (2023) (16).

Differences in external load match parameters between the baseline- and follow-up period were analyzed using SWD, calculated as 0.2 of the between players SD at pre-test/baseline (3), and non-overlap of all pairs (NAP). NAP is a nonparametric technique for measuring non-overlap or "dominance" for two phases, and a feasible way to interpret individual effects between two periods. Advantages with the NAP are, for example, that it can be applied in distributions that lack normality and all data points collected is included into the analyses. Disadvantages are that it cannot be used to evaluate trends or serial dependency. For a more thorough explanation of NAP and its application, see Parker and Vannest, 2009 (17). Effect sizes for NAP values were interpreted according to previous recommendations: 0–.65 = week effects, .66–.92 = moderate effects, .93–1.0 = large or strong effects (17).

3 Results

Results from pre- and post-intervention period and changes in physical test performance and external load match parameters are presented in Table 1. Kendall's Tau correlations between changes in physical test performance and external load are presented in Table 2. Three players showed physical test improvements greater than the SWD, TE and TE%, and their individual NAP effects in the three most common external load match parameters (total-, high-intensity running- and sprint running distance) (5) are presented in Figure 2. Individual figures and NAP effects across all variables for all eight players are available in supplementary materials.

"Insert Table 1 and 2 here"

"Insert Figure 2 here"

4 Discussion

This study explored the effects in external load match parameters following a meaningful change in physical test performance post an in-season strength intervention including a small sample of professional football players. Our results suggest that a meaningful change in physical test performance does not directly impact external load match parameters, and we do not observe changes in physical test performance to be associated with changes in external load match parameters.

When looking at the results (Table 1), three players (a, e, and h) showed meaningful physical test improvements. Contrastingly several other players showing strong NAP-effects and changes >SWD, suggesting that meaningful improvements in physical test performance were not consistently reflected in external load match parameters. Indeed, this study was conducted in-season, with a high football-specific focus likely explaining the uniform improvements in external load match parameters.

External load has been explored as a simple tool to monitor players physical fitness in a previous study, and although some parameters were correlated, it was highlighted that the measures may not be sensitive enough to detect small but meaningful alternations in players fitness (10). This observation is coherent with our findings. Furthermore, a small range of physical performance improvements complicates the identification of a relationship, nevertheless, such minor improvements may still be important for football-specific performance. Despite cross-sectional assessments demonstrating a relationship between physical performance and external load data across subjects (7, 11), our finding suggests that small but meaningful within-subject improvements in physical performance might not affect external load parameters.

Current research emphasize the large variations within external load match data, therefore the lacking sensitivity that is a huge challenge when attempting to assess associations in changes of potentially associated data such as physical fitness test results (18). It is possible that larger physical performance improvements typically seen after years of practice, for example from youth academy to senior elite level players (7, 8, 11), would be necessary to reflect changes in external load data.

Sport-specific performance such as match-play is a highly complex task, difficult to decipher by fixed moving patterns such as generic physical performance tests or external load parameters (1, 7, 16). The inherent challenge of identifying small but meaningful performance changes is evident even in simple physical performance assessments (1, 2), and with the variation in external load parameters (11, 15), the lack of an association in the current study is not unexpected. However, the importance of physical performance testing or external load monitoring per se, should not be neglected. While we emphasize the challenges of assuming a causal relationship between them without supportive data (1), both physical performance results and external load data in themselves can be of high value for practitioners in optimizing player performance and development, minimizing risk of injuries and preparing for competitive performance (5, 7, 11).

Previously (9, 10) and in the current study, external load match data has been included to explore the relationships with physical performance, despite the known challenges with match-to-match variabilities (19) and influence of contextual factors (20). However, drills, such as small sides games, have been thoroughly utilized as a way of standardizing game-play (21). Such drills may represent a feasible measure of players performance and should be further explored as a method to standardize the external load demands when exploring the relationships between physical fitness and external load parameters in future studies (6).

5 Practical application

Although this data set has a small sample size, we believe our findings can serve as a foundation for future studies. In general, we highlight the need to increase the knowledge on how strength training adaptations can impact a variety of football match external load parameters and performance. With no direct link between improvements in physical performance tests and changes in external load match parameters, coaches and practitioners should evaluate the importance of physical and external load monitoring separately and avoid postulating an effect between two measures without supportive data. We emphasize the need for researchers and practitioners to work closely together to better understand and explore how physical performance changes can potentially affect different measures of football specific parameters.

6 Conclusions

Improvements in physical test performance may not necessarily translate to changes in external load match parameters. More research is needed to address and understand the mechanisms between changes in physical performance and how this affects measures of match related external load performance. Future studies should include larger samples of trained players and include a non-strength training control group to further investigate the relationship between changes in physical test performance and measures of external load from both training and match situations.

7 Nomenclature

CMJ: Countermovement jump
TE: Typical error

SWD: Smallest worthwhile difference
NAP: Non-overlap of all pairs
HSR: High-speed running
Bayes Factors: BF

8 Conflict of Interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Table 1: Individual results and change from pre-test/baseline to post-test/follow-up in physical test performance and external load match parameters.

	Physical performance					External load								
	10-m s	**30-m** s	**Max speed** m/s	**CMJ** cm	**Pmax** W	**TD** m/min	**Peak speed** m/s	**Player-Load** au/min	**HIR** m/min	**SPR** m/min	**HIE** nr/min	**Acc** (>2.5) nr/min	**Dec** (>2.5) nr/min	**CoD** (>2.5) nr/min
Pre-test/baseline period														
Player a (n=4)	1.60	4.04	8.64	41.5	1534	106.6 ± 5.5	7.96 ± 0.58	10.6 ± 0.8	3.31 ± 0.92	0.55 ± 0.44	1.03 ± 0.06	0.21 ± 0.04	0.21 ± 0.03	0.61 ± 0.02
Player b (n=5)	1.65	4.27	7.97	27.4	1165	132.4 ± 7.0	7.56 ± 0.20	13.7 ± 1.2	7.92 ±1.77	0.66 ± 0.39	1.01 ± 0.14	0.25 ± 0.06	0.19 ± 0.04	0.58 ± 0.09
Player c (n=5)	1.44	3.71	9.42	46.9	1164	112.2 ± 4.1	8.74 ± 0.39	12.0 ± 0.3	6.62 ± 1.48	1.90 ± 0.79	0.93 ± 0.13	0.21 ± 0.03	0.24 ± 0.03	0.47 ± 0.08
Player d (n=4)	1.49	3.85	9.06	44.0	1902	100.4 ± 4.1	8.01 ± 0.39	9.7 ± 0.5	2.28 ± 0.84	0.51 ± 0.35	1.44 ± 0.07	0.41 ± 0.10	0.22 ± 0.04	0.81 ± 0.09
Player e (n=5)	1.49	3.80	9.36	47.5	2098	121.0 ± 2.4	8.29 ± 0.24	12.9 ± 0.3	7.19 ± 1.12	1.60 ± 0.66	1.21 ± 0.13	0.28 ± 0.05	0.27 ± 0.08	0.66 ± 0.07
Player f (n=3)	1.54	3.93	8.77	42.7	1597	128.6 ± 6.1	8.25 ± 0.49	13.3 ± 0.8	7.94 ± 1.55	1.98 ± 1.24	1.26 ± 0.04	0.23 ±0.03	0.35 ± 0.05	0.68 ± 0.08
Player g (n=2)	1.46	3.79	9.09	38.7	1719	127.0 ± 8.1	8.33 ± 0.21	11.3 ± 1.3	7.61 ± 1.33	1.01 ± 0.19	1.59 ± 0.39	0.36 ± 0.09	0.33 ± 0.11	0.90 ± 0.19
Player h (n=5)	1.52	3.92	8.87	39.0	1673	110.3 ± 7.3	8.32 ± 0.34	10.4 ± 0.9	8.40 ± 2.43	2.47 ± 0.57	1.51 ± 0.19	0.24 ± 0.02	0.31 ± 0.09	0.96 ± 0.11
Post-test/follow-up period														
Player a (n=5)	1.53	3.88	9.06	49.4	1599	111.8 ± 4.2	8.58 ± 0.55	11.2 ± 0.6	5.08 ± 0.95	1.16 ± 0.63	1.17 ± 0.07	0.30 ± 0.05	0.18 ± 0.02	0.70 ± 0.10
Player b (n=3)	1.67	4.29	7.94	28.7	1035	130.4 ± 3.0	7.70 ± 0.40	12.5 ± 0.6	8.72 ± 0.79	0.90 ± 0.47	1.04 ± 0.15	0.20 ± 0.06	0.22 ± 0.04	0.61 ± 0.20
Player c (n=5)	1.47	3.78	9.35	43.8	1105	115.3 ± 3.5	8.59 ± 0.47	12.1 ± 0.4	8.30 ± 1.00	2.50 ± 0.49	1.19 ± 0.20	0.27# ± 0.03	0.26 ± 0.06	0.65 ± 0.18
Player d (n=5)	1.51	3.89	9.14	42.8	1764	107.8# ± 3.6	8.31 ± 0.26	10.4 ± 0.4	4.93# ± 1.01	0.93 ± 0.44	1.30 ± 0.16	0.39 ± 0.08	0.21 ± 0.05	0.69 ± 0.13
Player e (n=5)	1.46	3.72	9.60	55.7	2267	126.5 ± 4.6	8.57 ± 0.56	13.3 ± 0.4	7.45 ± 0.61	1.77 ± 0.43	1.42 ± 0.11	0.33 ± 0.07	0.25 ± 0.06	0.84# ± 0.10

Player f (n=5)	n/a	3.99	n/a	39.6	1478	130.3 ± 3.2	8.26 ± 0.37	13.4 ± 0.3	7.93 ± 1.22	1.67 ± 0.55	1.77# ± 0.12	0.34# ± 0.04	0.42 ± 0.06	1.00# ± 0.15
Player g (n=4)	1.46	3.79	9.06	38.9	1683	126.6 ± 3.8	8.81# ± 0.24	11.7 ± 0.8	8.73 ± 0.92	2.08# ± 0.51	1.39 ± 0.13	0.32 ± 0.07	0.20 ± 0.04	0.86 ± 0.13
Player h (n=4)	1.52	3.88	9.31	43.9	1573	110.0 ± 1.6	8.45 ± 0.20	10.2 ± 0.3	8.38 ± 0.35	3.25 ± 0.72	1.30 ± 0.06	0.27 ± 0.01	0.23 ± 0.02	0.81 ± 0.04
Change pre/baseline period – post/follow-up period														
Player a	**0.08***	**0.16***	**0.42***	**7.9***	65	5.3† -2.4, 12.9	0.62† -0.28, 1.51	0.7† -0.4, 1.8	1.77† 0.28, 3.26	0.61† -0.28, 1.49	0.14† 0.03, 0.25	0.08† 0.01, 0.15	-0.03 -0.07, 0.01	0.09† -0.03, 0.22
Player b	-0.02	-0.02	-0.04	1.3	-130	-2.0 -12.1, 8,6	0.14† -0.36, 0.64	-1.3 -3.1, 0.6	0.80† -1.90, 3.50	0.24† -0.51, 0.99	0.02 -0.23, 0.28	-0.05 -0.15, 0.06	0.04† -0.03, 0.11	0.03 -0.21, 0.28
Player c	-0.03	-0.07	-0.07	-3.1	-59	3.1† -3.1, 11.5	-0.14 -0.72, 0.44	0.1 -0.4, 0.6	1.68† -0.17, 3.52	0.60† -0.42, 1.62	0.26† 0.02, 0.50	0.06† 0.01, 0.11	0.02† -0.05, 0.10	0.18† -0.02, 0.38
Player d	-0.02	-0.04	0.08	-1.2	-138	7.4† 1.4, 13.7	0.30† -0.21, 0.82	0.7† 0.1, 1.3	2.65† 1.15, 4.14	0.42† -0.23, 1.06	-0.14 -0.35, 0.06	-0.02 -0.16, 0.13	-0.01 -0.08, 0.07	-0.12 -0.30, 0.06
Player e	**0.03***	**0.08***	**0.23***	**8.2***	**169***	5.5† 0.1, 10.9	0.28† -0.35, 0.90	0.4† -0.1, 1.0	0.25 -1.06, 1.60	0.17† -0.65, 0.99	0.22† 0.05, 0.38	0.05† -0.04, 0.14	-0.03 -0.13, 0.07	0.19† 0.06, 0.31
Player f	n/a	-0.05	n/a	-3.0	-119	1.7 -6.9, 10.3	0.00 -0.74, 0.75	0.0 -1.0, 1.0	-0.01 -2.40, 2.39	-0.32 -1.82, 1.19	0.51† 0.33, 0.68	0.11† 0.05, 0.18	0.07† -0.03, 0.17	0.32† 0.09, 0.56
Player g	0.00	0.00	-0.03	0.2	-36	-0.4 13.0, 12.2	0.48† -0.08, 1.04	0.4† -1.9, 2.7	1.12† -1.39, 3.63	1.06† -0.03, 2.17	-0.20 -0.75, 0.35	-0.04 -0.21, 0.14	-0.13 -0.29, 0.03	-0.03 -0.39, 0.32
Player h	0.00	0.03	**0.45***	**5.0***	-100	-0.3 -9.3, 8.6	0.13† -0.33, 0.59	-0.3 -1.3, 0.81	-0.03 -2.97, 2.91	0.78† -0.23, 1.79	-0.20 -0.44, 0.03	0.03† 0.01, 0.05	-0.08 -0.19, 0.03	-0.15 -0.29, -0.01

Note: Positive change in 10- and 30-m sprint times indicate improved performance from pre to post. Physical performance results are reported with raw data points and raw difference. External load parameters are reported with mean ± SD in the baseline and follow-up period, while changes are reported as mean difference including 95% lower and upper confidence limits. N/a; missing data. *Bold text indicates that physical test performance changes were >SWD, raw and relative (%) TE. #Strong effects in Non overlap of all pair analysis (in follow-up period compared to baseline period). † >SWD calculated from baseline-period results. n: number of included matches in the respective periods, CMJ: Countermovement jump, Pmax: Max power (W), TD: total distance, AU: Arbitrary units, HSR: high speed running distance, SPR: sprint running distance, HIE: high intensity events, Acc: accelerations, Dec: decelerations, CoD: change of directions.

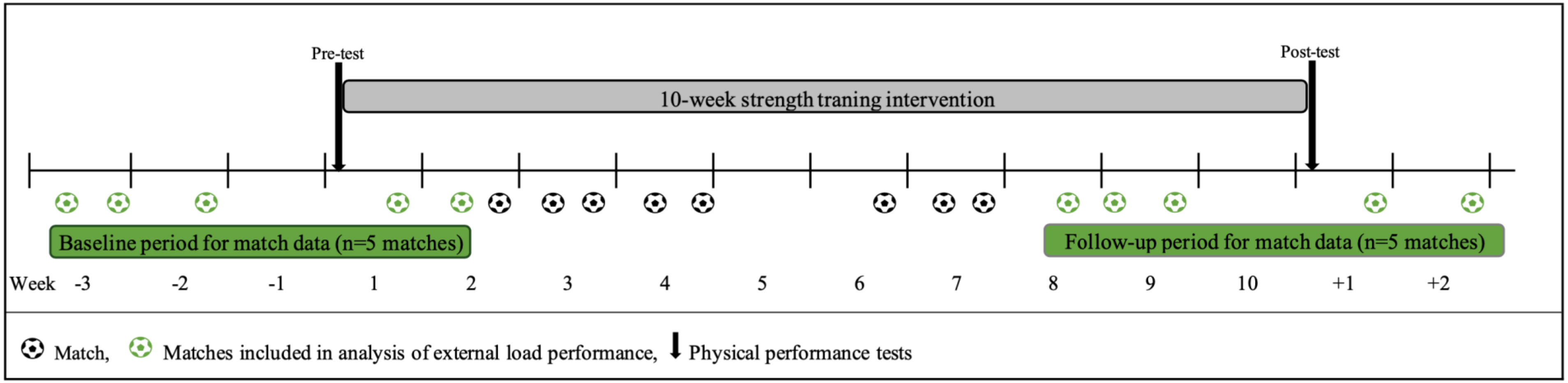
Table 2: Kendall's Tau correlations between changes in physical performance and external load match parameters from pre-test/baseline period to post-test/follow-up period.

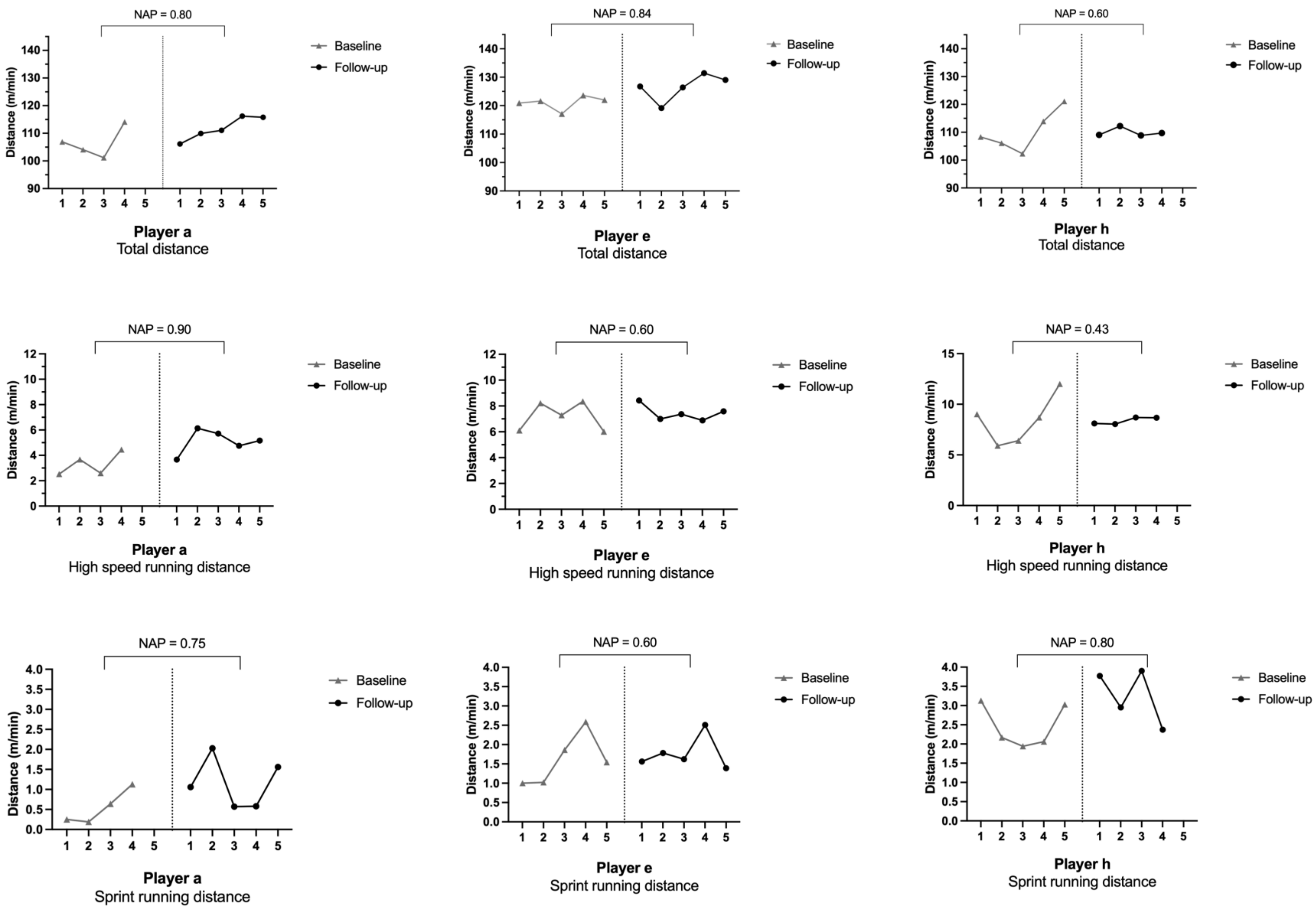
	10-m	**30-m**	**Max speed**	**CMJ**	**Pmax**
TD	0.07 (-0.38, 0.48)	0.07 (-0.38, 0.48)	0.14 (-0.33, 0.53)	0.07 (-0.38, 0.48)	0.21 (-0.28, 0.57)
Peak speed	0.22 (-0.27, 0.58)	0.57 (-0.03, 0.78)	0.36 (-0.18, 0.66)	0.43 (-0.13, 0.70)	0.14 (-0.33, 0.53)
PlayerLoad™	0.15 (-0.33, 0.53)	0.21 (-0.28, 0.57)	0.29 (-0.23, 0.62)	0.07 (-0.38, 0.48)	0.36 (-0.18, 0.62)
HSR	-0.30 (-0.63, 0.22)	-0.07 (-0.49, 0.38)	0.00 (-0.43, 0.43)	-0.21 (-0.57, 0.28)	-0.07 (-0.48, 0.38)
SPR	-0.22 (-0.58, 0.27)	0.14 (-0.33, 0.53)	0.36 (-0.18, 0.66)	0.00 (-0.43, 0.43)	0.14 (-0.33, 0.53)
HIE	0.15 (-0.32, 0.53)	-0.26 (-0.60, 0.25)	-0.47 (-0.73, 0.10)	-0.11 (-0.50, 0.35)	0.11 (-0.35, 0.50)
Acc	0.52 (-0.07, 0.75)	0.07 (-0.38, 0.48)	0.00 (-0.43, 0.43)	-0.07 (-0.48, 0.38)	0.21 (-0.28, 0.57)
Dec	-0.04 (-0.46, 0.40)	-0.40 (-0.69, 0.15)	-0.62* (-0.80, -0.01)	-0.33 (-0.65, 0.20)	-0.33 (-0.65, 0.20)
CoD	0.30 (-0.21, 0.63)	-0.14 (-0.53, 0.33)	-0.50 (-0.74, 0.08)	0.00 (-0.43, 0.43)	0.29 (-0.23, 0.62)

* Indicates BF_{10} >3. Values in brackets indicate 95% lower and upper credible intervals. TD: total distance, HSR: high speed running distance, SPR: sprint running distance, HIE: high intensity events, Acc: accelerations, Dec: decelerations, CoD: change of directions, CMJ: countermovement jump, Pmax: maximum power (W).

Figure 1: Schematic overview of the study, including specific test points, strength intervention period and matches played.

Figure 2: Non-overlap of all pairs analysis results for total distance, high-speed running distance and sprint running distance for players with a meaningful improvement in physical performance post-strength intervention period.


Pre-test
Post-test
10-week strength traning intervention
Baseline period for match data (n=5 matches)
Follow-up period for match data (n=5 matches)
Week -3 -2 -1 1 2 3 4 5 6 7 8 9 10 +1 +2
Match,
Matches included in analysis of external load performance,
Physical performance tests


NAP = 0.80
Distance (m/min)
Baseline
Follow-up
Player a
Total distance
NAP = 0.84
Player e
Total distance
NAP = 0.60
Player h
Total distance
NAP = 0.90
Player a
High speed running distance
NAP = 0.60
Player e
High speed running distance
NAP = 0.43
Player h
High speed running distance
NAP = 0.75
Player a
Sprint running distance
NAP = 0.60
Player e
Sprint running distance
NAP = 0.80
Player h
Sprint running distance