Research article

Effects of an intervention programme designed to improve emotional intelligence and foster the use of coping strategies among professional female football players

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HIGHLIGHTS

- We examine the effect on a socioemotional competence development program in Spanish professional female football players.
- The 'Aurrera neskak' program favors players 'emotion expression and perception.
- The 'Aurrera neskak' program promotes a greater use of coping strategies, such as emotional calming and behavioural risk.
- The players who participated in the 'Aurrera neskak' program used mental withdrawalless frequently during competitions.

ARTICLE INFO

ABSTRACT

The aim of the present study was to analyse the effects of a socioemotional competence development programme entitled 'Aurrera neskak' among professional female football players. Participants were 37 female footballers, of which 51% were assigned to the experimental group and 49% to the control group. A quasi-experimental design was used, with repeated pretest-posttest measures. The programme comprised 20 sessions, each lasting 90 min and focusing on four content areas: emotional awareness, personal autonomy, emotion regulation and team skills. The Trait Emotional Intelligence and the Sport Coping Approximation questionnaires were administered before and after the intervention. The results of the analyses reveal that, following the intervention, players perceived positive effects in terms of emotion expression and perception, used coping strategies such as emotional calming and behavioural risk more frequently, and mental withdrawal (a maladaptive strategy) less frequently, during competitions. The results were positive in that they attest to the both trainability of socioemotional competences and their influence on coping styles during competitions among professional female football players.

1. Introduction

No consensus has yet been reached in the scientific community regarding how to define or conceptualise the Emotional Intelligence (EI) construct, and much less how to measure it (Meyer and Fletcher, 2007). This may be due to the range of different postulates and models on which its study is based, mainly grouped around ability models (Mayer and Salovey, 1997) and mixed models that combine both cognitive abilities and personality traits (Petrides, 2009). Mayer and Salovey (1997) define EI as the set of skills required to manage feelings and emotions, distinguish between them and use this knowledge to guide one's own feelings

in the most intelligent way possible. For his part, Goleman (1995) views EI as a meta-skill and proposes a model based on the development of socioemotional competences and different cognitive abilities, whereas for Petrides (2009), EI is a personality trait, located at the lower level of the personality hierarchies.

In the context of sport and physical activity, the extant literature offers evidence attesting to the advantages of researching and understanding EI from both perspectives (Laborde et al., 2014). A meta-analysis (Kopp and Jekauc, 2018), a systematic review (Laborde et al., 2015) and various research studies support the correlation between EI and individual improvement in sport practice and performance (Arribas-Galarraga et al.,

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2020; Castro et al., 2018). However, other authors have failed to find any significant association between measures of sport performance and EI among athletes (Kopp et al., 2021).

One aspect that strongly influences sport performance is the ability to cope with and manage stress (Kaplánová, 2019a; Robazza and Ruiz, 2018) and anxiety (Ford et al., 2017; Gallegos et al., 2020; Kaplánová, 2019b), particularly in situations of elite competition (Bebetsos, 2015). According to the transactional model proposed by Lazarus and Folkman (1984), coping with stress involves an effort by the individual to overcome internal or external demands that are perceived as excessive, in order to adapt and regain one's balance. During moments of stress and pressure, athletes must make split-second decisions. Poor emotion control results in a drop in or loss of concentration, a decrease in self-esteem, more difficulty maintaining attention and increased anxiety, muscle tension and/or somatizations which in turn lead to poor action and decreased performance (Ferrer, 2013). Moreover, as the study by Kaplánová (2020) suggests, other situations experienced by footballers, such as fear of missing out on financial prizes or losing professional contracts or prestige and popularity increases their concern over sporting failure, which in turn increases their anxiety and affects their sporting performance. In another study by the same author, low levels of anxiety among footballers was found to correlate with the use of different coping strategies, such as keeping calm, concentration, confidence and achievement motivation, not worrying about other people's opinion of one's performance, and being able to accept constructive criticism by one's coach (Kaplánová, 2019c).

Several studies report that EI and coping correlate with sport performance (Mitić et al., 2020), decision-making (Vaughan et al., 2019), the use of adaptive coping strategies (Laborde et al., 2015), the physiological response (Mikolajczak et al., 2007) and stress assessment (Laborde et al., 2014). Athletes with high EI levels, use coping techniques based on acceptance and participation in peer support activities (Martínez et al., 2011). Those with low EI levels, on the other hand, have been found to have high state and strait anxiety (Castro-Sánchez et al., 2020) and to make more frequent use of maladaptive coping strategies, including active inhibition, avoidance and cognitive rumination (Chamorro et al., 2015). Rumination is the tendency to engage in recurring negative thoughts about a specific issue, without putting in place active mechanisms or strategies to cope with it; rumination can increase and prolong emotional distress (Joormann et al., 2011; Nolen-Hoeksema, 1991).

A meta-analysis (Hodzic et al., 2018) and a systematic review (Kotsou et al., 2018) attest to the positive effects of EI training in sport performance. However, research into the effects of psychological training programmes specifically including EI is still scarce in the extant literature. This is largely due to the need for a more precise conceptualisation of EI in sport, as well as valid, easy-to-administer instruments and more well-founded and easy-to-implement EI training programmes (Campo et al., 2019a,b). Another reason may be linked to the relationship between the organisational aspects of elite sport and the implementation of programmes in terms of their duration and feasibility (Balk et al., 2017). Positive effects of EI training on athletes have been reported by several authors, including Crombie et al. (2011), who found positive effects on mean EI scores and team performance after two seasons of interventions with cricket players. For their part, Barlow and Banks (2014) found that, following a short EI training programme, basketball players scored higher for self-efficacy and anxiety management, and another two studies focusing on the effects of EI training programmes on rugby players, one short term one (Campo et al., 2019a,b) and one longer term one (Campo et al., 2016), observed improvements in some emotional competences among athletes. Specifically, the one-week programme was found to have a positive impact on players' ability to identify and express emotions, whereas the five-month programme was observed to trigger improvements in social competence and the perception and management of emotions. In a recent work, Schütz et al. (2020) reported positive effects

on socioemotional competences among equestrians participating in a four-week training programme involving horse-assisted exercises.

Currently, due to a social change in how gender equality is perceived, interest in women's football has increased, and a growing number of studies have started to focus on the psychological characteristics of female football players and their relationship with sport performance (Ruiz-Esteban et al., 2020; Martínez et al., 2014; Sánchez et al., 2018). In a study comparing professional and amateur female players, Kristjánsdóttir et al. (2019) found that professional players scored significantly higher for competitive anxiety and mental tenacity. Williams (2017) argues that players' mental strength, self-esteem and control over anxiety are fundamental psychological factors in sport performance, and Campo et al. (2019a,b) associate female athletes' emotion management with perceived sport performance.

Few studies have explored EI in female athletes in terms of its association with sport performance (Boroujeni et al., 2012). In a study with female football players, Rutkowska and Bergier (2015) found a correlation between high EI levels and better adaptability, and Castro et al. (2020) observed that female athletes with high EI levels had lower levels of state and trait anxiety. In a study with professional female football players, Martínez (2016) observed a correlation between EI, sport performance factors, self-esteem and motivation.

1.1. The present study

The aim of the present study is to assess the effects of the programme 'Aurrera neskak' on professional female football players' EI and the frequency with which they use different coping strategies during matches. It also aims, from a fundamentally qualitative perspective, to explore the changes perceived by players, at a personal and group level, following the intervention. The initial hypotheses are: (H1) We expected the players participating in the programme to experience an improvement in EI in comparison with the control group; and (H2) We expected participants in the programme to use different adaptive coping strategies (emotional calming, cognitive restructuring, behavioural risk and seeking social support) more frequently during matches than their counterparts in the control group, and to engage less frequently in mental withdrawal and other maladaptive coping strategies.

2. Method

2.1. Participants

The sample group comprised 37 female football players from two women's football teams in Donostia-San Sebastián. The experimental group (EG) comprised 19 first division players from the Real Sociedad Football Club, with a mean age of 22 years ($M = 22.53$, $SD = 3.06$) and the control group (CG) comprised 18 s division players from the Añorga Kirol Elkartea, with a mean age of 20 years ($M = 20.72$, $SD = 3.84$). As regards education level, all players had completed either *Bachillerato* (equivalent to A levels in the UK and High School in the US) or mid-level vocational training. Just over half (52.6%) of the players in the EG and just under half (44%) of those in the CG had completed higher level vocational training or had a university degree. Only 5.4% of the total sample had participated previously in some kind of activity linked to personal development.

2.2. Measures

2.2.1. Trait emotional intelligence questionnaire

The TEIque measures trait EI and has been used by several authors to measure this construct in the sporting context (Campo et al., 2016; Laborde et al., 2014). The Spanish language adaptation of this questionnaire (Pérez, 2003) comprises 153 items rated on a seven-point Likert-type scale ranging from 1 = Completely disagree to 7 = Completely

agree. The instrument measures 15 factors and also offers an overall scale (TEI). The Cronbach's alpha values (α) obtained in this study were: Emotion expression = .89, Empathy = .72, Motivation = .66, Emotion regulation = .82, Happiness = .83, Social awareness = .76, Impulsiveness = .67, Emotion perception = .73, Self-esteem = .80, Assertiveness = .63, Emotion management (others) = .64, Optimism = .78, Social awareness = .33, Adaptability = .64, Stress management = .70, and TEI = .84.

2.2.2. Approach to coping in sport questionnaire

The Spanish adaptation (Kim et al., 2003) of the ACSQ-1 assesses the frequency with which certain coping strategies are used in competitive situations. It comprises 28 items designed to measure the frequency with which participants use certain coping strategies. Items are rated on a 5-point Likert-type scale ranging from 1 = never to 5 = always. The instrument assesses five coping strategies. The Cronbach's alpha values (α) obtained in this study were: Emotional calming = .88, Cognitive restructuring = .83, Mental withdrawal = .73, Behavioural risk = .65, and Seeking Social support = .87.

2.3. Design and procedure

A quasi-experimental design was used, with repeated pretest-posttest measures and a non-equivalent control group. Convenience sampling was used, respecting the natural groups. The EG was selected due to easy access, proximity and participants' availability. Subsequently, participants in the CG were selected from a prominent, historical, locally and nationally well-known women's football club, since they had similar sociodemographic characteristics to their counterparts in the EG.

Once the study conditions had been accepted, the pretest measurement was carried out with both groups (EG and CG) and the nine-month intervention programme was implemented with the EG (2018–2019 season). During this time, the members of the CG did not participate in any activity related to the programme. Once the programme had been completed, the posttest measurement was carried out, again with both groups. The study was conducted according to the guidelines of the Declaration of Helsinki, and by the Institutional Ethics Committee for Research Involving Human Subjects of the University of the Basque Country (CEISH). Informed consent was obtained from all subjects involved in the study for using questionnaire to collect data.

2.3.1. Intervention programme

During the final weeks of the 2017–2018 season, author 1 carried out two group interventions with the players, focusing on the influence of emotions on sport. At the end of this short programme, both players and coaches expressed their satisfaction with the interventions and their desire to organise further sessions in the future to explore this issue in more depth. Responding to this demand, the club's technical management requested an intervention programme for the team, to be carried out during the 2018–2019 season. Consequently, following Mikolajczak's recommendations (2009), the 'Aurrera neskak' programme was designed by combining the different theories and models that underpin the EI construct (Goleman, 1995; Mayer and Salovey, 1997; Petrides, 2011). The aim of the programme is to develop socioemotional competences, particularly the acquisition and use of coping strategies in competitive situations. The aims and content of the programme are divided across four competence-based sections.

- Emotional awareness: the ability to be aware of one's own emotions and their potential as a means of developing a healthy, mature identity. This section of the programme features many introspection and self-knowledge exercises, and seeks to develop specific EI abilities linked to Perception, Understanding and Facilitation.
- Personal autonomy: understood as a broad concept encompassing many different elements, including self-esteem, trust and positive

attitude, among others, the development of which fosters personal self-management.
- Emotion regulation and coping: the ability to appropriately manage emotions that may negatively impact learning and performance by using techniques such as cognitive restructuring, self-control, change in thinking, relaxation and visualisation.
- Team skills: the ability to establish productive, high-quality relationships with the different members of the group. This involves developing aspects such as cohesion, empathy, communication and collective values.

The programme comprises 20 sessions, designed in accordance with a group training-intervention method that fosters collaborative and experience-based learning.

The first 5 sessions were dedicated to fostering team skills. In sessions 1 and 2, different group dynamics were run with the aim of fostering communication, cooperation, confidence and a sense of cohesion among football players. In the remaining three sessions in this block, participants established the values they felt identified them as a team, working first in small groups and then all together. Behaviours or conducts were then added to each value, with the aim of generating a guide to internalising and expressing these values (see Figure 1).

Sessions 6, 7, 8, 9 and 10 focused on emotional awareness. The aim of this set of sessions was to help players' identify, understand and express their emotions. In session 6, they were asked to identify and define in their own words the emotions they feel most frequently in their everyday lives. After sharing feedback, an emotional dictionary was compiled which, once edited, was placed in the changing room for everyday consultation. Sessions 7 and 8 took as their reference 5 of the primary emotions established by Goleman (1995): anger, sadness, fear, joy and love. First, players were asked to name other emotions related to each of the selected ones. Next, on a thermometer-shaped template, they were asked to place them in order of intensity (very low/very high). After sharing feedback, 5 emotional thermometers were established, one for each emotion At the end of the session, the thermometers were made into laminated cards and were handed out to players as emotional expression aids (see Figure 2).

The final two sessions (9 and 10) were based on the 'MoodMeter' activity from the EI programme RULER (Brackett, 2019). Players placed the emotions established during the previous sessions on a graph divided into four quadrants, in accordance with their nature (agreeable/disagreeable) and intensity level (very low/very high). The results were then transferred to a poster, which was then hung on the door of the players' changing room. Each player was given a card with her photo on, which she must then place on the emotion that is predominant in her feelings at the start of each training session/match. Before leaving the sports facilities, each player must think about how she is feeling and decide whether or not to move her card. This activity lasts one month, at the end of which time the results are shared and analysed in a group session (see Figure 3).

Sessions 11, 12, 13, 14, 15, 16, 17 and 18 are designed to work on different emotion regulation and coping techniques. During the first two sessions (11 and 12), various exercises from the TREVA Programme were adapted to practice breathing techniques (López González, 2013). The aims were to become aware of the breathing process and to learn to regulate its activation in specific competition-related moments. To this end, an initial respiratory test was carried out to help each player become aware of their habitual breathing pattern. The second session featured a guided practical class on how to breathe efficiently in order to ensure optimal performance. The class started with a deep inhale, bringing the air in towards the abdominal zone (filling up the stomach), then the lumbar region (expanding the lower ribs to either side) and the intermediary part (the rib cage lifts), before reaching the highest zone (around the clavicle). Sessions 13 and 14 focused on the Jacobson's psycho-physiological progressive relaxation technique, with the aim of teaching players to reduce the general activation of the organism during anxiogenic situations.

Figure 1. Poster with the values of the team.

Specific attention was paid to the procedures pertaining to four muscle groups (biceps-arms-hands, face-neck, thorax-shoulders-back-abdomen, and thighs-calves-feet) (Bernstein et al., 2000), in order to teach players to distinguish between feelings of tension and relaxation. Sessions 15 and 16 focused on visualisation techniques, with the aim of helping players decrease their anxiety levels and experience a sense of self-control in situations of competitive stress. During the first session, players were asked to visualise an ideal landscape in which they would like to be at that moment in order experience a sense of well-being (see Figure 4). The second practice consisted of visualising a situation that generated feelings of competition-related distress or anxiety. Next, players were asked to try and change this feeling for the one of control and well-being developed during the previous session. The aim was to help them associate positive emotions and a feeling of control with the stressful situation they had been asked to imagine. Session 17 focused on cognitive restructuring. This technique enables individuals to change their thinking patterns associated
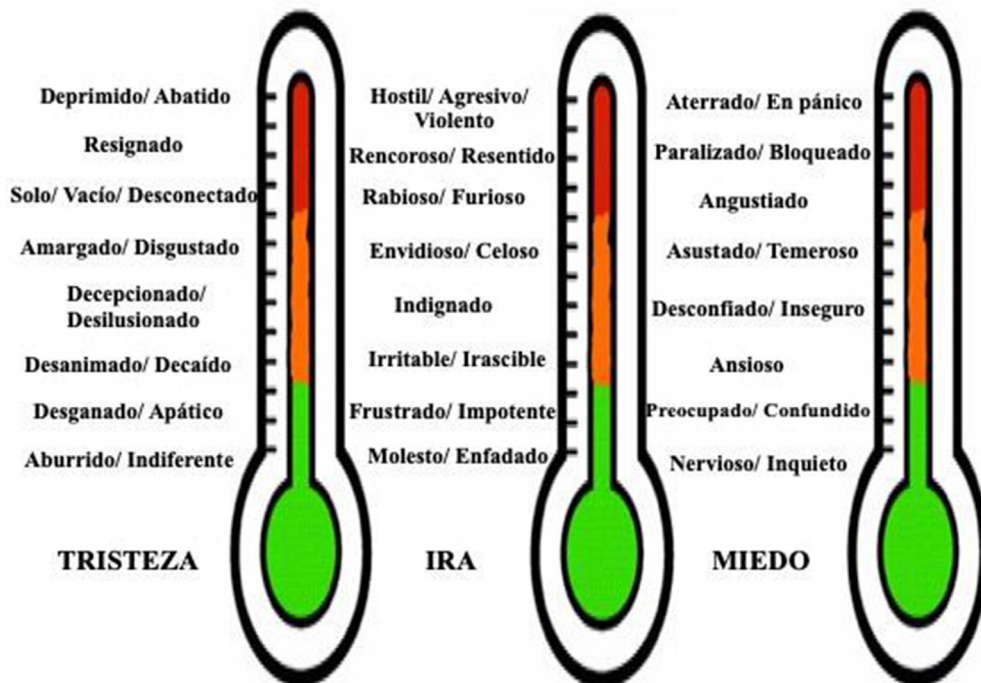

Figure 2. Card that collects the designed emotional thermometers.

Figure 3. Moodmeter working poster.

with a negative experience (Kaplánová and Gregor, 2019). The aim was for players to learn to transform these negative thoughts into others that foster more adaptive emotional states, in order to ensure better performance (Greenberger and Padesky, 2016). Using a data sheet developed by our research team, we asked players to describe a situation they had experienced as negative, threatening or anxiogenic. Next, we asked them to write down any thoughts associated with this situation and the emotions and behaviours experienced a posteriori. Next, the cognitive dysfunctions of these thoughts were analyzed, and players were asked to assign other, more adaptive ones and to observe how these changed their emotions and resulting behaviours. The aim was to help them reduce or eliminate states of anxiety, frustration and fear, etc. and to develop a more effective response to difficult competitive or personal situations. In session 18, players were taught the anchoring technique, which aims to help them enter a state of confidence in response to a situation that they may perceive as stressful or threatening, in order to thereby enhance their performance (Bandler and Grinder, 1975). After explaining the technique, players were asked to established their own anchor or sensory stimulus. During the first step, they were asked to visualise a challenging or threatening situation that they had positively overcome in the past. Then they were asked to choose a stimulus to associate with said situation. We next asked them to think of a situation in which they would like to act with confidence and to activate their anchor in order to activate the associated stimulus. At this point, with their eyes still closed, we suggested they 'entered' this situation in order to experience those feelings of confidence.

Sessions 19 and 20 focused on stimulating self-esteem and a positive attitude among players. In session 19, using the definition of self-esteem proposed by William James (1942–1910) as our reference, we engaged in a process of guided reflection on how athletes use sporting successes and failures as self-assessment indexes and how this influences their self-esteem. During the final session, players were asked to identify the positive traits of their personal and sporting identity. Next, each player received positive feedback from their teammates about their sporting performance and behaviour, with the aim of bolstering their self-esteem. This activity was adapted from the Galatea programme (Cava and Musitu, 2000).

2.4. Data analyses

In order to enable the use of parametric statistical tests, the assumptions of normality and homogeneity were confirmed using the Shapiro-Wilk and Levene tests. First, analyses of variance (ANOVAs) were performed on the scores of the different variables assessed in both the EG and CG during the pretest phase, along with t tests for related samples. Next, to assess the effect of the programme, descriptive and covariance analyses were carried out of the posttest scores (ANCOVAs, with pretest scores as covariates). Next, effect sizes were calculated using Cohen's d, bearing in mind the approximate values indicated by the author himself (Cohen, 1992) (small $< .50$; moderate $.50-.79$; large $\geq .80$). The data were analysed using version 25 of the Statistic Package for the Social Sciences.

3. Results

3.1. Changes in EI

The results of the pretest ANOVA indicated no significant differences between groups in terms of EI scores prior to the intervention. At the end of the programme, the scores obtained by the EG had risen, and were higher than those obtained by the CG in emotion management (others) ($\Delta Me = .16$; $\Delta Mc = -.08$), stress management ($\Delta Me = .29$; $Mc = 16$), emotion expression ($\Delta Me = .34$; $\Delta Mc = .21$), emotion perception ($\Delta Me = .42$; $\Delta Mc = .27$), and assertiveness ($\Delta Me = .19$; $\Delta Mc = -.02$). To verify the existence of statistically significant differences between players' pretest and posttest scores, we performed t tests for related samples in both groups. In the EG, differences between the pretest and posttest scores were observed in emotion expression ($t = -2,473$, $p < .05$) and emotion

Figure 4. Visualisation practice.

perception (t = -2,471, p < .05). In the CG, no statistically significant differences were observed in any of the EI variables with the exception of social competence (t = -2,471, p < .05), which may have been due to an uncontrolled extraneous variable. To test the effect of the intervention programme after its completion, covariance analyses were performed on the EG and CG posttest scores, using the pretest scores as covariates. The results failed to confirm statistically significant differences between the EG and the CG in terms of their posttest scores (see Table 1).

3.2. Changes in the frequency of use of coping strategies during matches

The results of the pretest ANOVA revealed a significant difference between the EG and the CG in terms of cognitive restructuring, $F(1, 35)$ = 4.60, p < .05, with the EG scoring higher. The effect size was moderate (d = .69). In terms of all the other variables, both groups started with similar scores. Following the intervention, players in the EG scored higher than those in the CG in all variables except seeking support (ΔMe = 2.18; ΔMc = -3.37). The t tests revealed statistically significant differences between the pretest and posttest scores of players in the EG in cognitive restructuring (t = -2,571, p < .05), mental withdrawal (t = 4,86, p < .001) and behavioural risk (t = -4,746, p < .001). No significant changes were observed in the CG between pretest and posttest scores. The results of the analysis of covariance (ANCOVA) confirmed the presence of statistically significant differences between groups, with a large effect size, in emotional calming, $F(1, 34)$ = 5.18, p < .05, d = .23, mental withdrawal, $F(1, 34)$ = 5.62, p < .001, d = .91 and behavioural risk, $F(1, 34)$ = 5.86, p < .05, d = .89 (see Table 1).

4. Discussion

To the best of our knowledge, this is the first study to analyse the effects of a socioemotional competence development programme on professional female football players' EI and their use of coping strategies during

matches. Confirming our first hypothesis, we observed that, after participating in the 'Aurrera neskak' programme, the players in the EG perceived improvements in most dimensions of trait EI, and scored higher overall. The data reveal significant improvements in emotion expression and perception among players in the EG, leading us to conclude that the programme helped improve their capacity to perceive their own and other people's emotions more clearly, as well as their ability to communicate their feelings to others. This is a positive finding, since both these dimensions are deemed highly relevant in the development of EI, in terms of both ability models and mixed models. Furthermore, the players who participated in the programme improved more in emotion regulation, stress management, emotion expression, emotion perception and assertiveness than their counterparts in the CG. These findings are consistent with those reported by two other studies analysing the effects of EI training on rugby players, which observed improvements in emotion identification, perception, expression and management (Campo et al., 2016, 2019a, b; Schütz et al., 2020). However, when analysed with pretest scores as covariates, these between-group differences were not found to be statistically significant. This absence of statistical significance may be due to the size of the sample, in terms of its statistical power (McCrum-Gardner, 2010), as well as to the fact that a more intense and prolonged programme may be required to develop trait EI. The findings of the present study are consistent with those reported previously by other authors in the context of men's sport, in which no significant changes were observed in overall EI scores following an intervention programme (Barlow and Banks, 2014).

In relation to the second hypothesis, our results confirm that the 'Aurrera neskak' programme helps female football players use adaptive coping strategies more frequently during matches. These results are consistent with those reported by other studies that observed a correlation between coping and EI and both sport performance (Mitić et al., 2020) and the use of coping strategies (Laborde et al., 2015). When the variables are examined in greater depth, it becomes clear that players in the EG significantly increased their in-match use of coping strategies such as

Table 1. Pretest and posttest analyses of the different variables in the EG and CG.

| | Pre-test | | | | Post-test | | | | Pre-test | | Post-test | |
| | Exp. | | Control | | Exp. | | Control | | Anova | | Ancova | |
	M	SD	M	SD	M	SD	M	SD	F (1,35)	d	F (1,34)	d
TEIque												
Emotion Expression	3.61	1.01	3.90	1.57	3.95	1.04	4.11	1.36	.42	.21	.08	.13
Empathy	5.18	.80	5.27	.66	5.04	.57	5.38	.68	.15	.11	3.49	.53
Motivation	5.15	.80	5.03	.73	5.07	.59	5.08	.57	.15	.12	.06	.01
Emotion Regulation	4.29	.99	3.80	.88	4.33	.73	4.10	.76	2.55	.51	.12	.30
Happiness	5.82	1.03	5.71	.93	5.74	.63	5.92	.71	.12	.10	.92	.26
Social awareness	4.58	.85	4.25	.84	4.71	.54	4.58	.79	1.40	.38	.19	.18
Impulsiveness	4.77	.92	4.43	.69	4.93	.62	4.67	.59	1.53	.11	.42	.42
Emotion Perception	3.97	.65	4.09	.81	4.38	.82	4.36	.77	.24	.18	.38	.10
Self-esteem	4.88	.76	4.59	.97	5.06	.60	4.74	.67	1.02	.10	1.43	.11
Assertiveness	4.44	.81	4.39	.73	4.63	.67	4.37	.75	.03	.06	1.73	.35
Emotion Management	4.35	.82	4.39	.79	4.52	.67	4.32	.62	1.02	.04	1.61	.30
Optimism	5.06	.89	4.91	.84	5.28	.74	5.14	.76	.26	.16	.08	.18
Relationships	5.52	.59	5.66	.41	5.42	.58	5.73	.41	.73	.26	2.60	.60
Adaptability	4.40	.71	4.15	.92	4.56	.53	4.18	.62	.84	.29	3.50	.64
Stress management	4.35	.88	4.07	.78	4.64	.71	4.23	.56	1.03	.33	2.58	.62
Total	4.73	.42	4.58	.54	4.82	.32	4.73	.43	.89	.30	.00	.23
ACSQ-1												
Emotional calming	26.47	3.23	25.06	3.62	27.42	2.61	25.11	2.76	1.58	.40	5.18*	.84
Cognitive restructuring	31.68	4.79	34.94	4.42	34.38	3.94	34.44	4.16	4.60*	.69	.81	.01
Mental withdrawal	13.42	1.77	14.11	4.19	11.74	2.40	14.50	3.45	4.32	.21	5.62*	.91
Behavioural risk	12.16	1.11	12.83	1.38	13.79	1.43	12.28	1.87	.05	.52	5.86*	.89
Seeking social support	15.79	2.09	15.56	4.16	16.26	2.18	16.56	3.32	.15	.06	.19	.10

*p < .05.

emotional calming and risk behaviour, with a large effect size. No change of note was observed among players in the CG. This finding suggests that participating in the programme helped players by encouraging them to develop skills, thoughts and complex techniques designed to enable them to control their emotions more effectively and to rise to the challenges posed by matches. Several authors have highlighted the fact that sporting performance is influenced by the intensity of athletes' emotions and their ability to maintain them in optimal performance zones (Hanin, 2000; Robazza and Ruiz, 2018). Similarly, previous studies have associated the use of coping strategies with improved performance in football (Jooste et al., 2014; Kaplánová, 2019c) and other sports such as golf (Christensen and Smith, 2016), basketball (Karamousalidis et al., 2006), gymnastics (Kaplánová, 2019a) and hockey (Kaplánová, 2019b). Consistently with the results of these studies and in light of those obtained here, we can conclude that the programme fostered the use of coping skills, which in turn had a positive influence on reducing stress and anxiety, resulting in improved sporting performance among participating players.

Furthermore, the players in the EG engaged significantly less than their counterparts in the CG in mental withdrawal (an avoidant type of coping strategy), with a large effect size. This finding is very positive, since when they use this strategy, players feel unable to resolve the conflict with which they are faced and simply resign themselves to it, an attitude which undermines their sport performance. These results are consistent with those reported by other studies that found that athletes with high EI levels use adaptive coping strategies more often (Chamorro et al., 2015), are more adaptable (Rutkowska and Bergier, 2015) and feel that their performance has improved (Campo et al., 2019a,b).

These results show that the intervention had a significant impact on the frequency with which these emotion-focused strategies were used; and indeed, alongside those focused on problem-solving, these strategies are considered to be more effective and longer-lasting for reducing stress than those based on avoidance (Kaplánová and Gregor, 2019). Similarly, these findings are consistent with those reported by studies analysing gender differences, which have observed that this type of coping is more commonly used by women than by men, who generally tend to use problem-focused strategies (Nicholls and Polman, 2007; Rogowska, 2018).

Although the extant literature suggests that socioemotional competence development programmes are effective, we still do not know why, since we are largely unaware of the factors that foster socioemotional learning and the improvement of EI among athletes. In this study, we have identified certain key elements in the success of these programmes: the design of their contents and activities should be based on EI models; those running the programme should have sufficient training and experience; players must show an interest in the programme; and management must support it and ensure the resources required for its implementation.

4.1. Limitations and future research

The study has a number of limitations which should be taken into consideration, the first two being the non-random nature of the allocation of participants to the EG and CG and the small size of the sample. It would be interesting to conduct a larger-scale study including other football teams, and to consider also their sociodemographic characteristics. However, it is important to be aware of the difficulties this would entail, given that the sample used in the present study comprised a team of elite female football players, of which only 15 more exist in Spain.

Future research may also want to complement the present study by including a questionnaire that measures ability EI, since the programme itself aims to foster this specific type of emotional intelligence.

5. Conclusions

The results found in the present study partially confirm our initial hypotheses. We can conclude that players who participated in the programme were more aware of the emotions they felt, were able to express them more accurately and were better able to manage them. Moreover, participating in the programme had an impact on the frequency with which players used adaptive coping strategies during matches, which in turn enhanced their sport performance. For this reason, we encourage sporting organisations to run psychological training intervention programmes, not only in response to extreme situations, but also as a preventive measure designed to foster the learning and use of strategies that improve sporting performance.

The principal contribution made by this study is the fact that the findings strongly suggest that socioemotional competences can be improved through training and have an impact on sport performance among professional female football players. This study therefore aims to encourage further research in the context of women's football, which has received very little attention to date from both society and academia.

Declarations

Author contribution statement

Berastegui-Martínez: Conceived and designed the experiments; Performed the experiments; Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper.

Lopez-Ubis: Conceived and designed the experiments; Wrote the paper.

Data availability statement

The authors do not have permission to share data.

Declaration of interests statement

The authors declare no conflict of interest.

Additional information

No additional information is available for this paper.

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