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12-17 years old soccer players' experiences in their motivational climate and its association with their achievement goal orientation, motivation and perceived competence

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Abstract

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Motivational climate plays a big role in young athlete's sporting career and the coach has an important role in creating it. The aim of this research was to study how 12-17 years old, female and male soccer players experience their motivational climate and is it associated with their goal orientation, motivation and perceived competence.

A total of 964 participants took part in this research, 286 female players and 678 male players. All participants were from some of the highest ranking soccer clubs in Finland. The data was collected in Sami Hyypiä Academy's player development camps in 2015, where the participating players attended twice a year, once in autumn and once in spring. The participants filled out questionnaires regarding their perceived motivational climate, achievement goal orientation, motivation and perceived competence. The data from these questionnaires was then analysed using the SPSS bivariant correlation coefficient analysis, independent sample t-test and one way ANOVA t-test.

The study showed that 12-17 years old, female and male soccer players experience their motivational climate more often as task involving than ego involving. Female players experience less ego involvement than male players. The study indicated that task involving motivational climate had a positive association with enjoying the practice, social relatedness, autonomy, mastery approach goal orientation, intrinisc motivation, defence skills offence skills, 1vs1 skills and identified regulation and negative association with amotivation and external regulation. Ego involving motivational climate had a positive association with performance approach goal orientation, performance avoidance goal orientation and introjected regulation.

According to the results, players who operate in task involving motivational climate enjoy the practice more and feel more socially related. Task involving climate also supports intrinsic motivation and mastery goal orientation more than ego involving climate. Players who operate in ego involving motivational climate exhibit performance approach and performance avoidance goal orientation and are more extrinsically motivated.

Keywords
Motivational climate, achievement goal orientation, motivation, perceived competence

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1 Introduction

A young athlete is influenced by many variables in his sporting career. One of the things that affect the athlete's career is motivational climate. The coach plays a big role in creating the climate, but peer athletes affect it too. Motivational climate is important because it affects the type of motivation the athlete experiences and the competence he perceives. All the things mentioned above affect one another. The climate created affects the type of motivation the athlete experiences; whether the athlete is intrinsically or extrinsically motivated. The type of motivation, on the other hand, affects the perceived competence and the athlete's performance, which again affects the motivational climate. (Vallerand & Losier 1999, 63-64.)

To reach an optimal performance, all the variables have to be in balance. When dealing with young athletes, the coach has a big influence on the variables and because soccer is a team sport, teammates have an important role too. In this article I am studying how do youth football players experience their motivational climate? Is the motivational climate associated with their goal orientation, intrinsic motivation and perceived competence?

To answer these questions I analysed a data collected in Sami Hyypiä Academy's player development camps in autumn 2015 and spring 2016. A total of 964 players participated in this study, 286 females and 678 males. The participants were 12-17 years old and from the highest ranking clubs in Finland. The players filled out questionnaires regarding motivational climate, motivation, perceived competence and achievement goal orientation.

2 Motivational climate

Motivational climate is the environment that the athlete is operating in. It contains the social, psychological and structural aspects of the environment (Ames 1992, 261). Motivation is affected by many external factors. According to Self-Determination theory, there are three psychological human needs that affect motivation; autonomy, competence and relatedness. The need for autonomy refers to the activity being voluntary, the participant chooses to participate in the action. An athlete needs to feel that he is in control of his actions and that he can determine his behaviour. According to DeCharms & Carpenter (1968, 64) every individual has an innate need to be an origin in his life, not a pawn. The need for competence refers to feeling able to perform the activity. In order to be intrinsically motivated the athlete needs to be confident that he can perform the wanted task. The third psychological need is relatedness. Relatedness refers to the basic need of belongingness. Every individual has a basic need to be a part of something and interact with other people. To an athlete this means for example teammates, coaches, and support personnel. (Deci & Ryan 2000, 134-135.)

According to Integrated theory of intrinsic and extrinsic motivation in sport, social aspects and psychological aspects determine the motivation which then leads to a certain outcome. The social factors in this theory are, for example, success and failure, coaches' behaviour and competition and cooperation. These factors affect the three psychological needs, autonomy, competence and relatedness a lot. The athlete will face success and failure in his sporting career. Good feedback and succeeding will increase the athlete's feeling of competence and autonomy and negative feedback and failing decrease them. Achievement situations affect the athlete's feeling of relatedness. These situations are usually focused on competition or cooperation. If the situation is focused on competition, there is usually some comparison among the athletes which can decrease the feeling of relatedness. (Vallerand & Losier 1999, 62-65.)

Motivational climate plays a big role in athletes' motivation, participation and goal orientation. The coaches' actions and feedback has a big impact on how the athlete perceives himself. A coercive coach can diminish the athletes feeling of autonomy and

intrinsic motivation and make him feel less competent. If the coach has a more autonomy-supportive coaching style, the athletes are more likely to feel more competent and autonomous. The coaches' behaviour affects the motivational climate and the athlete's orientation to achievement situations a lot. (Vallerand & Losier 1999, 63-64.) Coach can create a more task involving climate, where the athletes are most likely to be more task oriented by their goal orientation. If the created climate is ego involving, the athletes' goal orientation is supposedly more ego oriented. This doesn't mean the athlete has to be one or the other. An athlete can be high in task orientation and low in ego orientation, or high or low in both. (Ames 1984, Nicholls 1989, 123.)

2.1 TARGET model

According to Epstein (1989, 10-13) there are six achievement structures that help in showing whether the climate is task- or ego-involving. These structures are Tasks, Authority, Recognition, Grouping, Evaluation, and Time. An acronym TARGET is created from the first letters of each structure. All the structures in the TARGET model affect the motivational climate. Depending on how these six achievement structures are demonstrated, the motivational climate can either mold to be task- or ego involved.

Task: The activities and tasks given to the athletes to learn and accomplish. The given task and the level of demand affects the perceived motivational climate and involvement. Authority: Who is making the decisions and leading the learning process? By getting the athletes involved in decision-making and taking responsibility of their development, the coach teaches them engagement to the sport. Recognition: Motivating the athletes by recognizing their accomplishments and improvements encourage them to keep practising and working for their goal. Grouping: How is the group divided in practice? Grouping can define whether the environment is task- or ego involving. Evaluation: How is the progress monitored and assessed and how is the results presented to the athletes? Tests, for example, can be seen as a way of reflecting one's own improvement or as a way of competing with others. Timing: The pace of development and wanted outcome. (Ames 1992, 263-266.)

3 Achievement goal theory

Achievements can motivate and push one to try harder, but people differ in needs of accomplishments. Achievement motivation is a trait that demonstrates one's need for achievements. The key feature in achievement motivation is the way people view their own perceived competence. (Nicholls 1984, Duda 1989, 79-80.) People with high level of achievement motivation strive to tasks in which they can accomplish something. They choose tasks of moderate difficulty, so it's more likely to succeed in it, or tasks in which they can show their abilities fairly, for example tests. People with low level of achievement motivation choose easier tasks or even tasks which they cannot accomplish. (Atkinson 1957, 1964, 27-28.)

Achievement goal theory uses a social-cognitive approach to the research. It studies the interaction between the social context and the person's way of thinking. The motivation results from both, intrinsic factors, such as one's own beliefs and values, and extrinsic factors such as environment and other people who are involved. (Bandura et al. 1986, 3.)

Achievement goals are something that a person is trying to achieve (Pervin 1989, 77). According to the theorists, the goal for a person's achievement behaviour is competence; being able to perform in a certain environment, with the abilities one has developed (Elliot & Dweck 2005, Maehr & Nicholls 1980, Nicholls 1984, White 1959, 79). In achievement goal theory, the focus is on understanding why someone is trying to achieve something, rather than what he is trying to achieve (Urdan & Maehr 1995, 78). Why, for example, would an athlete want to achieve a level of excellence in a running test? According to this theory, there are two possible reasons for a person's achievement behaviour: An athlete would want to reach a level of excellence because he wants to be a better runner and master that skill. Or, an athlete wants to outperform others and show them he is a better runner. (Ames 1992, Dweck & Leggett 1988, Maehr & Nicholls 1980, Nicholls 1984, 78). These tendencies are called achievement goal orientations. Based on this achievement behaviour, it is assumed that a person performs in a task- or ego oriented manner. The differences in goal orientations may derive from

social contexts. For example, if the environment is task-involved, the person is likely to incline to task oriented behaviour and vice versa. According to this theory, task and ego goal orientations are supposedly independent from each other. An athlete can be both, task and ego oriented, so if one has a high score in task goal orientation it doesn't necessarily mean he has a low score in ego goal orientation. (Nicholls 1989, 1984, 80.)

3.1 Task oriented

When a person is task oriented, his goal is to master a certain skill. For a task oriented person, perceived competence derives from perceived improvements. (Ames 1992, Dweck & Leggett 1988, 79.) In task orientation, the perceived competence is not based on comparison with others. Task oriented people feel competent when they outperform their own performances. They select tasks that are challenging and opponents that are realistic. Competence can be developed through hard work and the goal is to perform better than one performed before. (Dweck 1986, Nicholls 1984, 1989, Roberts 1984, 1992, 5.)

Focus is on the progress, which is measured by self-evaluations and self-referential manners that shows has the performance improved or not, for example questionnaires (Ames 1992, Nicholls 1984, 79). Because the perceived competence is based on one's own results and standards, it is easier to feel competent and happy about one's own performance. Task oriented people don't fear failure and because the focus is on personal performances, they have a greater control and they become more motivated in the task. (Maehr & Nicholls 1980, Nicholls 1984, Roberts 1993, 79.)

3.2 Ego oriented

Ego oriented people are looking to outperform others and to compare their performances with competitors (Nicholls 1989, 152). Perceived competence comes from winning and good ratings. These people feel competent when they perform better than others, especially when they themselves put in less effort. People with ego orientation are more likely to see competence as an innate quality, something one is born with. This way of thinking can cause them to not try their best in competitions,

because if one is not trying their best and fails, the failure can be seen as a lack of effort rather than as a lack of competence (Duda & Hall 2001, 152).

People with ego orientation can suffer from anxiety during performances if they feel they're not as competent as their competitors. If they feel inferior often, it can lead to drop outs or they could start setting their standards extremely high or very low. By setting their standards very high or low, they try to avoid failure and its effects to their self esteem. Ego orientation can be caused by pressure from parents or coaches. If a coach wants his athletes to outperform others and win everytime they compete, the athlete can start fearing of making mistakes. (Dunn, Dunn & Syrotuik 2002, 152.)

3.3 2x2 framework

In 2001 Elliot and McGregor proposed two new dimensions to the original achievement goal theory. They offered a new framework that include the difference between approach and avoidance motivation. This framework, referred to achievement goal theory 2x2, presents two new, a total of four dimensions to the theory: mastery (task) approach, mastery (task) avoidance, performance (ego) approach and performance (ego) avoidance. Mastery approach means the athlete wants to master a task, he feels competent when he learns a new skill. In mastery avoidance the athlete wants to avoid being incompetent in mastering a task so he doesn't want to be seen as incapable of learning a new skill. An athlete has a high score in performance approach when he wants to feel competent compared to others and if he has a high score in performance avoidance, he wants to avoid performing worse than others. (Elliot & McGregor 2001, 80-84.)

4 Motivation

4.1 Intrinsic motivation

Intrinsic motivation refers to a person's will to pursuit an activity of his own choosing and for the activity itself. Vallerand & Losier (1994, 428), proposed that there are three forms of intrinsic motivation: Accomplishment, knowledge and stimulation. When a person has intrinsic motivation for accomplishment, he engages in the activity because he wants to surpass himself or accomplish a goal. If a person has intrinsic motivation for knowledge, he engages in the activity because he wants to learn and if he has intrinsic motivation for stimulation, he enjoys for example the physical feeling he experiences when engaging in the activity.

There's two common measurements used to operationally define intrinsic motivation. A "free choice" measure is a behavioural measure of intrinsic motivation, where the participants are given a task and asked to perform it, without knowing if there is going to be a reward or not. The next step is that the experimenter tells the participants they no longer have to perform the task and the participants are left in the experimental room with various distractions and the initially given task. Now the participants have a "free choice" in what they want to do in the experimental room. The assumption is, since the participants will not be rewarded anyhow, the more time they spend with the initially given task, the more intrinsically motivated they are towards the task. (Deci 1971, 57-58.) The other common measurement is to have the participants write self-reports of their interests in an activity. This approach is most commonly used in more general measurements, such as intrinsic motivation for school. (Harter, 1981, 57-58.)

Motivational climate has a big impact on players' intrinsic motivation. According to Self-determination theory, there are three basic needs: feeling of competence, autonomy and relatedness (Deci & Ryan 1985, 64-65). In order for the player to be intrinsically motivated, he has to feel competent in what he's doing. Failure and getting poor feedback can diminish feeling of competence and therefore, intrinsic motivation where good feedback and performing well can increase it. (Vallerand, Deci & Ryan 1987, 38.) Players who are encouraged for autonomy are more intrinsically motivated than players

whose coaches are coercive (Vallerand & Rousseau 2001, 38). Coaches can, for example, get the players involved in decision-making to increase autonomy and relatedness among the team. Coercion and lack of autonomy may result lack of effort and less intrinsic motivation. (Vallerand, Deci & Ryan 1987, 38.)

In order for the players' to be intrinsically motivated, the motivational climate should make the players' feel competent in what they are doing, support autonomy and have relatedness among the players. Players who are intrinsically motivated have been seen as more task-oriented athletes. As mentioned before, task-oriented athletes are focused on learning new skills and improving themselves, which has been seen to lead to greater skill-acquisition and high quality learning. (Nicholls 1989, 262).

4.2 Extrinsic motivation

If the athlete isn't intrinsically motivated, he is extrinsically motivated or amotivated. Amotivation refers to the absence of motivation. An amotivated person feels incompetent and that he has no control of the outcome of his actions. If an athlete is amotivated, he will most likely think of dropping out and not participating at all. Extrinsic motivation means the athlete doesn't participate in the activity because he enjoys it, but rather to gain some kind of rewards from the activity. (Vallerand 1999, 428.) The reward can, for example, be a medal or a trophy, something concrete or avoiding a punishment. An athlete can be externally motivated on different ways, depending on his level of self-determination or the degree of the autonomy of the task. For example, an athlete who is extrinsically motivated to conditioning can perform the given movements because he wants to avoid punishments from the coach, or because he knows it benefits him later on the field. The motivation is extrinsic either way, but the level of self-determination is different. (Deci & Ryan, 1985, 60.)

According to self-determination theory, there are four types of extrinsic motivation: external regulation, introjected regulation, identified regulation and integrated regulation. In external regulation the behaviour is regulated by some external mean. In this type the level of self-determination and autonomy is very low if existing. In this type, the athlete performs because he wants to satisfy the coach or because he wants to gain

some externally set reward. The second type is introjected regulation. In this type the regulation of one's actions become more internal, but is still somewhat controlled by an outer source. For example, the athlete participates because he wants to avoid a feeling of quilt or being judged if he did not participate. The third type or extrinsic motivation is identified regulation which already has a higher level of self-determination and autonomy. In this type the athlete identifies the importance of the behaviour as his own and sees the relevance of his actions. For example the athlete who doesn't want to do conditioning, does it anyway because he sees the relation between being in good condition and succeeding. The fourth and last type is integrated regulation. This is the most autonomous type and has the highest level of self-determination. In this type the athlete has fully assimilated the identified regulation, thus the regulation has become integrated. The more internalized one's reasons for his actions become, the more self-determined and autonomous they are. This type is the closest type to being intrinsically motivated. (Deci & Ryan 1985, 61-62.)

5 Perceived competence

Perceived competence is one of the basic psychological needs (Deci & Ryan 1985, 64-65). Athletes who feel competent in what they're doing are usually self-confident about their abilities too. According to Feltz and Chase (1998, 49-50) there are two kinds of self-confidences: global self-confidence and situation-specific self-confidence. The term global self-confidence is used when talking about a personality trait or a disposition. Having global self-confidence means one is generally confident. For example a globally self-confident person can be confident about trying new things, but that doesn't mean he believes that he is good at some specific task. A person who has situation-specific self-confidence believes that he can succeed in a certain task. For example a soccer player who wants to take a penalty kick believes he can score, thus, he has situation-specific self-confidence.

There are various theories about the topic, as well as various terms used. The following theories are based on situation-specific self-confidence. Bandura (1997, 49-52) used the term self-efficacy to study self-confidence in sport performance. He defined self-efficacy as "beliefs on one's capabilities to organize and execute the courses of action required to produce given attainments". Self-efficacy is a vital component of social cognitive theory. The other components of the theory are agency and personal control. The athlete has to believe that he is in control of his performances and that he is performing intentionally in order for the self-efficacy to develop. According to Bandura, there are four fundamental elements affecting the development of self-efficacy: Performance accomplishments, vicarious experiences, verbal persuasion and emotional and physiological arousal.

Performance accomplishments or successful performance is an important part when developing self-efficacy. The athlete needs to feel he has accomplished something or succeeded in his sport in order to feel self-efficient. Vicarious experience is important especially with beginning athletes. Athletes who have just started their sporting career will face a lot of tasks they haven't performed before so when learning a new skill, the athlete needs a model to copy. This model can be given by a coach or for example a

teammate or a video. When developing self-efficacy, the athlete needs verbal persuasion. It can be an encouraging comment from the coach or a cheer from a teammate, anything that will make the athlete feel competent. The right kind of attention is important when learning a new skill. The athlete needs to be ready and focused to master a new skill and develop the feeling of efficacy. (Psychological review 1977, Vol. 84, No 2, p. 194-195).

Another situation-specific self-confidence theory is Harter's theory of competence motivation (1978, 52-54). This theory is based on the feeling of personal competence. According to Harter, individuals have an innate urge to be competent in different human achievement areas. The person has to master a skill to feel competent in an achievement area such as sport. When a person tries to master a skill, he will develop positive or negative feelings depending on his self-perception of success. If the person succeeds in his attempt to master a skill, he will develop positive feelings and feeling of personal competence. This will increase his competence motivation and encourage him to attempt to master new skills. If he does not succeed, it will cause negative feelings and low competence motivation, which can further lead to sport drop-out. (Harter S. 1978, 34-64).

6 The aims and research questions

The aim of this thesis was to study how 12-17 years old soccer players experience their motivational climate and is it associated with their goal orientation, motivation and perceived competence.

1. How do 12, 13, 14, 15-16 years old female and male football players experience their motivational climate?
2. Is the motivational climate associated with their goal orientation, motivation and perceived competence?

7 Research methods

7.1 Participants

A total of 964 (286 females and 678 males) players took part in this research. All participants were 12-17 years old and from Sami Hyypiä Academy's co-operation clubs. The co-operation clubs are among the highest ranking clubs in Finland. The clubs apply to the academy for two year periods and the chosen clubs have two development monitoring camps a year, one in autumn and one in spring.

7.2 Methods

The data was collected in the beginning of a new season in autumn 2015. The participants fill out questionnaires in the camp, one team at a time. Participation was voluntary and the participants' guardians signed a permission for the participation. Different age groups fill out different amount of questionnaires. The questionnaires were filled out in MyEerikkilä.fi using iPads. The participants logged in with their personal username and password and the session is supervised by Sami Hyypiä Academy's staff. All the answers are anonymous.

7.3 Questionnaires

The questionnaires used in this research were Perceived Game-Specific Soccer Competence Scale (PGSSCS), which was then divided in to three subcategories; offensive skills, 1vs1 skills and defensive skills (Forsman et al.). Motivational Climate in Physical education Scale (MCPES), divided in to five subcategories; autonomy factors, social relatedness factors, task-involving climate factors, ego-involving climate factors and enjoying the practice (Soini et al. 2006). Achievement Goals Questionnaire for Sport (AGQ-S) divided in to four subcategories; mastery-approach, mastery-avoidance, performance-approach, and performance-avoidance goals (Conroy, Elliot & Hofer 2003) and the Behavioural Regulation in Sport Questionnaire (BRSQ) which was divided in to five subcategories; intrinsic motivation, introjected regulation, amotivation, identified regulation and external regulation (Lonsdale et al. 2008). The response scale for all of the questionnaires was 1 to 5, 1 being almost never and 5 being almost always.

7.4 Statistical analysis

The data was analysed using SPSS. Means and standard deviations were counted for all variables and for all age groups. The differences between the means of variables in female and male participants were analysed using SPSS independent sample T-test and the differences between the variables in different age groups were analysed using SPSS ANOVA T-test. Correlations between the variables were analysed using SPSS Pearson's correlation analysis.

8 Results

8.1 Perception of motivational climate

The research showed that every age group reported high levels in task involving climate (M=4.3-4.6, SD=.32-.50) and moderate levels in ego involving climate (M=2.6-3.3, SD=.68-.83). A consistent difference was found between female and male participants in experiencing motivational climate. An independent sample T-test showed that the difference was statistically significant (p=>0.01). Female players reported lower levels in ego involving climate that male players. There was no significant difference found between the age groups in perception of motivational climate, however, the study indicates that 12-17 years old, female and male football players experience their motivational climate as more task involving climate than ego involving climate.

8.2 Associations with goal orientation, motivation and perceived competence

8.2.1 U13

Table 1 shows descriptive statistics, mean and standard deviation, and the correlations between the variables in under 13 years old males. From the Motivational Climate in Physical Education Scale (MCPES) the sample reported high levels in perception of task involving climate (M=4.5), enjoying the practice (M=4.5) and social relatedness (M=4.3). Moderate levels (M=2-4) were reported in perception of ego involving climate and autonomy. From Behavioural Regulation in Sport Questionnaire (BRSQ) the sample reported high levels in intrinsic motivation (M=4.4) and identified regulation (M=4.0), moderate level in introjected regulation and low levels (M=1-2) in amotivation and external regulation. In Achievement Goal Questionnaire for Sport (AGQ-S) the sample reported high levels in mastery approach goal orientation (M=4.6) and moderate levels in performance approach goal orientation, performance avoidance goal orientation and mastery avoidance goal orientation and from the Perceived Game-Specific Soccer Competence Scale (PGSSCS) the sample reported high level in defence skills (M=4.0) and moderate levels in of-fence skills and 1vs1 skills (Table 1.)

Table 1 also indicates the correlations between the variables. It shows that task involving motivational climate has a relatively strong, positive correlation with enjoying the practice (r=.51) and moderate, positive correlation with social relatedness (r=.45), autonomy (r=.27), mastery approach goal orientation (r=.26) and intrinsic motivation (r=.34). Ego involving motivational climate has a strong, positive correlation with performance approach goal orientation (r=.57) and a moderate, positive correlation with performance avoidance goal orientation (r=.33), introjected regulation (r=.30), autonomy (r=.25), mastery approach goal orientation (r=.24), and external regulation (r=.23). A strong, positive correlation can also be observed between enjoying the practice and intrinsic motivation (r=.65) and enjoying the practice and social relatedness (r=.47). (Table 1.)

Table 1. Means, standard deviations and correlations between the variables in under 13 years old males. N=216

	Mean	SD	1.	2.	3.	4.	5.
1.Taskinvolving	4.5	.43					
2.Enjoying	4.5	.62	.51**				
3.Sosial relatedness	4.3	.47	.45**	.47**			
4.Egoinvolving	3.2	.83	.12	.07	-.02		
5.Autonomy	3.0	.65	.27**	.23**	.19**	.25**	
6.Performance approach	3.9	.90	0.9	.16*	.14*	.57**	.23**
7.Mastery approach	4.6	.39	.26*	.27**	.22**	.24**	.17*
8. Performance avoidance	3.5	1.1	.00	-.02	.11	.33**	.16*
9. Mastery avoidance	2.9	.89	-.08	-.08	-.18*	.09	.06
10. Intrinsic motivation	4.4	.75	.34**	.65**	.35**	.09	.21**
11. Introjected regulation	2.3	1.0	.03	-.02	-.06	.30**	.14*
12. Amotivation	1.3	.60	.12	-.19**	-.09	.10	.14*
13. Identified regulation	4.0	.70	.18**	.28**	.22**	.12	.16*
14. External regulation	1.7	.82	-.08	-.20**	-.14*	.23**	.17*
15. Offence	3.8	.38	.20**	.25**	.24**	.13	.17*
16. 1vs1	3.8	.53	.18**	.20**	.22**	.16*	.15*
17. Defence	4.0	.54	.10	.18**	.23**	-.04	.12

Note: Correlation is significant at **=0.01 level, *=0.05 level

Table 2 shows means, standard deviations and correlations between the variables in under 13 years old females. The table shows that in MCPES, under 13 years old female participants had relatively high levels in task involving motivational climate (M=4.5), enjoying the practice (M=4.50) and social relatedness (M=4.2). They reported moderate levels in autonomy (M=2.8) and ego involving motivational climate (M=2.6). From BRSQ, the sample reported high levels in intrinsic motivation (M=4.4), moderate levels in identified regulation (M=3.7) and low levels in introjected regulation (M=1.8), external regulation (M=1.5) and amotivation (M=1.3). In AGQ-S, the participants had high levels in mastery approach goal orientation (M=4.3) and moderate levels in performance approach goal orientation (M=3.1), performance avoidance goal orientation (M=3.2) and mastery avoidance goal orientation (M=3.4). Finally from PGSSCS, they had high levels in defence skills (M=4.0) and moderate levels in offence skills (M=3.7) and 1vs1 skills (M=3.4). (Table 2.)

Task involving motivational climate showed a strong, positive correlation with social relatedness (r=.57) and moderate, positive correlation with enjoying the practice (r=.48), mastery approach goal orientation (r=.27), performance avoidance goal orientation (r=.30) and defence skills (r=.25). Ego involving motivational climate had a moderate, positive correlation with autonomy (r=.23), performance approach goal orientation (r=.38), performance avoidance goal orientation (r=.20), identified regulation (r=.24) and a moderate, negative correlation with defence skills (r=-.25). A strong, positive correlation was can also be seen between enjoying the practice and social relatedness (r=.63). (Table 2.)

Under 13 years old males and females had a significant difference in how they perceive their offence skills and 1vs1 skills. SPSS independent samples T-test showed that female participants reported a higher level in the mean of offence skills, but lower mean in 1vs1 skills than male participants. A difference was also found in their goal orientation. Female participants had a higher mean in mastery avoidance goal orientation than male participants, but lower means in mastery approach goal orientation, performance

approach goal orientation and performance avoidance goal orientation. Female participants also reported a lower mean in introjected regulation than male participants. There was also a significant difference in how they experienced their motivational climate and autonomy. Female participants reported lower means in both, ego involving motivational climate and autonomy than male participants.

Table 2. Means, standard deviations and correlations between the variables in under 13 years old females. N=116

	Mean	SD	1.	2.	3.	4.	5.
1.Taskinvolving	4.5	.43					
2.Enjoying	4.5	.52	.48**				
3.Sosial relatedness	4.2	.63	.57**	.63**			
4.Egoinvolving	2.6	.76	-.05	-.16	-.24**		
5.Autonomy	2.8	.67	.15	.16	.25**	.23*	
6.Performance approach	3.1	.89	.93	-.13	-.18	.38**	.09
7.Mastery approach	4.3	.56	.27**	.21*	.08	-.01	.03
8. Performance avoidance	3.2	.87	.30**	.08	.08	.20*	.14
9. Mastery avoidance	3.4	.95	.15	.15	.11	.17	.03
10. Intrinsic motivation	4.4	.68	.17	.53**	.28**	-.04	.01
11. Introjected regulation	1.8	.82	.18*	-.11	-.00	.11	.19*
12. Amotivation	1.3	.61	.09	-.12	-.06	-.03	.12
13. Identified regulation	3.7	.75	.17	.05	.06	.24**	.14
14. External regulation	1.5	.72	.07	-.17	-.15	.09	.15
15. Offence	3.7	.41	.18	.18	.15	-.18	.10
16. 1vs1	3.4	.56	.13	.16	.14	-.09	.15
17. Defence	4.0	.54	.25**	.24*	.17	-.25**	-.10

Note: Correlation is significant at **=0.01 level, *=0.05 level

8.2.2 U14

Table 3 indicates means, standard deviations and correlations between the variables in males under 14 years old. The table shows that in MCPES, the participants reported high levels in task involving motivational climate (M=4.5), enjoying the practice (M=4.4) and social relatedness (M=4.2). They reported moderate levels in ego involving motivational climate (M=3.2) and autonomy (M=2.9). From BRSQ, the sample reported high levels in intrinsic motivation (M=4.4) and identified regulation (M=4.0) and moderate levels introjected regulation (M=2.2). They reported low levels in amotivation (M=1.4) and external regulation (M=1.5). In AGQ-S, the participants reported high a level in mastery approach goal orientation (M=4.6) and moderate levels in performance approach goal orientation (M=3.8), performance avoidance goal orientation (M=3.4) and mastery avoidance goal orientation (M=2.8). The sample showed moderate levels in defence skills (M=3.9), 1on1 skills (M=3.7) and offence skills (M=3.7) in PGSSCS. (Table 3.)

Task involving motivational climate had a strong, positive correlation with enjoying the practice (r=.59) and social relatedness (r=.61). It had a moderate, positive correlation with autonomy (r=.23), mastery approach goal orientation (r=.42), identified regulation (r=.28), offence skills (r=.32), 1vs1 skills (r=.25) and defence skills (r=.25). It also had a moderate, negative correlation with amotivation (r=-.20) and external regulation (r=-.19). Ego involving motivational climate showed a high, positive correlation with performance approach goal orientation (r=.50) and a moderate, positive correlation with performance avoidance goal orientation (r=.32) and introjected regulation (r=.23). A strong, positive correlation was also found between enjoying the practice and social relatedness (r=.58) and enjoying the practice and intrinsic motivation (r=.64). (Table 3.)

Table 3. Means, standard deviations and correlations between the variables in under 14 years old males. N=240

	Mean	SD	1.	2.	3.	4.	5.
1.Taskinvolving	4.5	.45					
2.Enjoying	4.4	.61	.59**				
3.Sosial relatedness	4.2	.57	.61**	.58**			
4.Egoinvolving	3.2	.78	.02	.00	-.10		
5.Autonomy	2.9	.65	.23**	.24**	.20**	.18**	
6.Performance approach	3.8	.78	.13**	.11	.04	.50**	.10
7.Mastery approach	4.6	.41	.42**	.28**	.29**	-.03	.02
8. Performance avoidance	3.4	.96	.06	.01	.02	.32**	.02
9. Mastery avoidance	2.8	.85	-.06	-.16*	-.06	.04	.14
10. Intrinsic motivation	4.4	.73	.34**	.64**	.34**	.07	.13*
11. Introjected regulation	2.2	.88	-.07	-.18**	-.20**	.23**	.02
12. Amotivation	1.4	.59	-.20**	-.19**	-.18**	.12	.02
13. Identified regulation	4.0	.69	.28**	.32**	.17**	.12	.18**
14. External regulation	1.5	.63	-.19**	-.28**	-.31**	.11	.10
15. Offence	3.7	.40	.32**	.25**	.31**	-.06	.06
16. 1vs1	3.7	.55	.25**	.17**	.24**	.02	.06
17. Defence	3.9	.55	.25**	.30**	.33**	.03	.10

Note: Correlation is significant at **=0.01 level, *=0.05 level

Table 4 shows means, standard deviations and correlations between the variables in females under 14 years old. The table indicates that from MCPES, under 14 years old female participants reported high levels in task involving motivational climate (M=4.5), enjoying the practice (M=4.5) and social relatedness (M=4.1). They reported moderate levels in ego involving motivational climate (M=2.7) and autonomy (M=2.7). In BRSQ, they reported a high level in intrinsic motivation (M=4.4) and a moderate level in identified regulation (M=3.8). Low levels were shown in introjected regulation (M=1.9), amotivation (M=1.3) and external regulation (M=1.4). From AGQ-S, they reported a high level in mastery approach goal orientation (M=4.3) and moderate levels in performance approach goal orientation (M=3.3), performance avoidance goal orien-

tation (M=3.2) and mastery avoidance goal orientation (M=3.3). In PGSSCS the sample reported moderate levels in offence skills (M=3.7), 1vs1 skills (M=3.5) and defence skills (M=3.9). (Table 4.)

Task involving motivational climate had a moderate, positive correlation with enjoying the practice (r=.43), social relatedness (r=.47), autonomy (r=.26), intrinsic motivation (r=.43), identified regulation (r=.27) and offence skills (r=.21). It had a moderate, negative correlation with amotivation (r=-.27) and external regulation (r=-.21). The table shows that ego involving motivational climate had a moderate, positive correlation with performance approach goal orientation (r=.45), performance avoidance goal orientation (r=.37), mastery avoidance goal orientation (r=.21) and external regulation (r=.20). Ego involving motivational climate had a moderate, negative correlation with intrinsic motivation (r=-.23). The table also showed that enjoying the practice had a strong, positive correlation with social relatedness (r=.55) and intrinsic motivation (r=.80) and a moderate, negative correlation with amotivation (r=-.43) and external regulation (r=-.45). Social relatedness also had a strong, positive correlation with intrinsic motivation (r=.51). (Table 4.)

SPSS independent T-test showed that under 14 years old females and males had differences in how they perceived their 1vs1 skills. Male participants reported a higher mean in 1vs1 skills than female participants. Under 14 years old participants had differences also in goal orientations. Female participants reported lower means in mastery avoidance goal orientation, mastery approach goal orientation and in performance approach goal orientation than male participants. Female participants also reported lower means in introjected regulation, external regulation, ego involving motivational climate and autonomy than male participants.

Table 4. Means, standard deviations and correlations between the variables in under 14 years old females. N=103

	Mean	SD	1.	2.	3.	4.	5.
1.Taskinvolving	4.5	.36					
2.Enjoying	4.5	.56	.43**				
3.Sosial relatedness	4.1	.65	.47**	.55**			
4.Egoinvolving	2.7	.72	-.18	-.21*	-.32**		
5.Autonomy	2.7	.69	.26**	.27**	.27**	.16	
6.Performance approach	3.3	.82	.05	.01	.03	.45**	.16
7.Mastery approach	4.3	.61	.18	.36**	.21*	-.08	.23*
8. Performance avoidance	3.2	.84	-.03	-.16	-.12	.37**	.04
9. Mastery avoidance	3.3	.88	-.09	-.27**	-.33**	.21*	.06
10. Intrinsic motivation	4.4	.69	.43**	.80**	.51**	-.23*	.23*
11. Introjected regulation	1.9	.78	-.19	-.18	-.11	.10	.04
12. Amotivation	1.3	.52	-.27**	-.43**	-.18	.02	-.13
13. Identified regulation	3.8	.69	.27**	.00	.03	.32	.04
14. External regulation	1.4	.59	-.21*	-.45**	-.28**	.20*	-.09
15. Offence	3.7	.42	.21*	.20*	.11	.03	.13
16. 1vs1	3.5	.51	.11	.21*	.15	.00	.11
17. Defence	3.9	.63	.07	.12	-.03	.04	-.07

Note: Correlation is significant at **=0.01 level, *=0.05 level

8.2.3 U15

Table 5 indicates means, standard deviations and correlations between the variables in males under 15 years old. The table shows that from MCPES, the sample reported high levels in task involving motivational climate (M=4.5), enjoying the practice (M=4.5) and social relatedness (M=4.1) and moderate levels in ego involving motivational climate (M=3.3) and autonomy (M=2.8). From BRSQ, they reported a high level in intrinsic motivation (M=4.4), moderate levels in introjected regulation (M=2.0) and identified regulation (M=3.6) and low levels in amotivation (M=1.3) and external regulation (M=1.4). In AGQ-S they showed high levels in mastery approach goal orientation (M=4.5) and performance approach goal orientation (M=4.0) and moderate levels

in performance avoidance goal orientation (M=3.2) and mastery avoidance goal orientation (M=2.7). In PGSSCS the participants showed moderate levels in offence skills (M=3.8), 1vs1 skills (M=3.7) and defence skills (M=3.9). (Table 5.)

According to table 5 task involving motivational climate had a strong, positive correlation with enjoying the practice (r=.69), social relatedness (r=.72), mastery approach goal orientation (r=.56), intrinsic motivation (r=.57) and offence skills (r=.57). It had a moderate, positive correlation with autonomy (r=.28), performance approach goal orientation (r=.38), identified regulation (r=.27), 1vs1 skills (r=.38) and defence skills (r=.33). It also had a moderate, negative correlation with amotivation (r=-.26) and external regulation (r=-.29). Ego involving motivational climate had a moderate, positive correlation with autonomy (r=.33), performance approach goal orientation (r=.42), performance avoidance goal orientation (r=.42), introjected regulation (r=.21) and identified regulation (r=.20). The table also shows that enjoying the practice is highly and positively correlated with social relatedness (r=.64), mastery approach goal orientation (r=.52) and intrinsic motivation (r=.77). Social relatedness was also highly and positively correlated with intrinsic motivation (r=.50). (Table 5.)

Table 5. Means, standard deviations and correlations between the variables in under 15 years old males. N=112

	Mean	SD	1.	2.	3.	4.	5.
1.Taskinvolving	4.5	.48					
2.Enjoying	4.5	.66	.69**				
3.Sosial relatedness	4.1	6.8	.72**	.64**			
4.Egoinvolving	3.3	.78	.19*	.07	.11		
5.Autonomy	2.8	.74	.28**	.18	.34**	.33**	
6.Performance approach	4.0	.72	.38**	.27**	.26**	.42**	.14
7.Mastery approach	4.5	.53	.56**	.52**	.45**	.15	-.01
8. Performance avoidance	3.2	1.0	.11	-.02	.11	.42**	.28**
9. Mastery avoidance	2.7	.80	-.09	-.12	-.10	.10	.17
10. Intrinsic motivation	4.4	.74	.57**	.77**	.50**	.08	.11
11. Introjected regulation	2.0	.86	.13	-.11	.06	.21*	.26**
12. Amotivation	1.3	.65	-.26**	-.41**	-.27**	.03	.14
13. Identified regulation	3.6	.79	.27**	.14	.18	.20*	.21*
14. External regulation	1.4	.62	-.29**	-.38**	-.19*	.09	.19*
15. Offence	3.8	.52	.57**	.47**	.49**	.19*	.16
16. 1vs1	3.7	.63	.38**	.39**	.36**	.23*	.20*
17. Defence	3.9	.60	.33**	.36**	.32**	.08	.21*

Note: Correlation is significant at **=0.01 level, *=0.05 level

Table 6 shows means, standard deviations and correlations between the variables in under 15 years old female participants. The table indicates that from MSPES, the sample reported high levels in task involving motivational climate (M=4.6), enjoying the practice (M=4.5) and social relatedness (M=4.3) and moderate levels in ego involving motivational climate (M=2.8), autonomy (M=2.5). In BRSQ, the participants showed a high level in intrinsic motivation (M=4.4), a moderate level in identified regulation (M=3.9) and low levels in introjected regulation (M=1.7), amotivation (M=1.3) and external regulation (M=1.4). From AGQ-S, the sample reported a high level in mastery approach goal orientation (M=4.5) and moderate levels in performance approach goal

orientation (M=3.6), performance avoidance goal orientation (M=3.1) and mastery avoidance goal orientation (M=3.7). Finally from PGSSCS, they reported moderate levels in offence skills (M=3.5), 1vs1 skills (M=3.1) and defence skills (M=3.8). (Table 6.)

Task oriented motivation climate had a moderate, positive correlation with enjoying the practice (r=.49) and defence skills (r=.48). Ego involving motivational climate was moderately and positively correlated with performance approach goal orientation (r=.44) and performance avoidance goal orientation (r=.40). Also, enjoying the practice had a strong, positive correlation with social relatedness (r=.55) and intrinsic motivation (r=.90). (Table 6.)

Under 15 years old female and male participants had some statistically significant differences in the means of some variables. SPSS independent T-test showed that male participants reported a higher mean in 1vs1 skills than female participants. It also showed that female participants reported a higher mean in mastery avoidance goal orientation than male participants, but a lower mean in performance approach goal orientation. Male participants showed a higher mean in identified regulation, ego involving motivational climate and autonomy.

Table 6. Means, standard deviations and correlations between the variables in under 15 years old females. N=26

	Mean	SD	1.	2.	3.	4.	5.
1.Taskinvolving	4.6	.32					
2.Enjoying	4.5	.73	.49*				
3.Sosial relatedness	4.3	.62	.27	.55**			
4.Egoinvolving	2.8	.68	-.18	-.17	.16		
5.Autonomy	2.5	.62	-.37	.06	.13	.30	
6.Performance approach	3.6	.87	.18	-.12	.05	.44*	-.24
7.Mastery approach	4.5	.43	.30	-.06	-.15	.09	-.33
8. Performance avoidance	3.1	.97	-.08	-.22	.03	.40*	-.15
9. Mastery avoidance	3.7	.84	.09	-.22	.14	.09	.11
10. Intrinsic motivation	4.4	.68	.38	.90**	.48*	-.13	-.02

11. Introjected regulation	1.7	.88	-.25	-.27	-.03	.00	.03
12. Amotivation	1.3	.51	-.11	-.25	.00	-.05	.14
13. Identified regulation	3.9	.62	.16	.19	.00	.06	-.34
14. External regulation	1.4	.78	-.13	-.27	-.03	-.05	.02
15. Offence	3.5	.48	.28	.23	.20	.01	-.33
16. 1vs1	3.1	.51	.26	.14	.06	-.06	-.43*
17. Defence	3.8	.57	.48*	.20	-.01	-.03	-.41*

Note: Correlation is significant at **=0.01 level, *=0.05 level

8.2.4 U17

Table 7 shows the means, standard deviations and correlations between variables in male participants under 17 years old. The table indicates that from MCPES the participants showed high levels in task involving motivational climate (M=4.5), enjoying the practice (M=4.3) and social relatedness (M=4.1) and moderate levels in ego involving motivation climate (M=3.3) and autonomy (M=2.6). From BRSQ, the sample reported a high level in intrinsic motivation (M=4.3), moderate levels in introjected regulation (M=2.0) and identified regulation (M=3.7) and low levels in amotivation (M=1.4) and external regulation (1.5). In AGQ-S, the participants reported high levels in performance approach goal orientation (M=4.0) and mastery approach goal orientation (M=4.5) and moderate levels in performance avoidance goal orientation (M=3.2) and mastery avoidance goal orientation (M=2.8). In PGSSCS, the sample showed moderate levels in offence skills (M=3.8), 1vs1 skills (M=3.7) and defence skills (M=3.9). (Table 7.)

Correlations were strong and positive between task involving motivational climate and enjoying the practice (r=.64), mastery approach goal orientation (r=.55), intrinsic motivation (r=.56) and identified regulation (r=.53). Task involving motivational climate had a moderate, positive correlation with social relatedness (r=.48), performance approach goal orientation (r=.33), performance avoidance goal orientation (r=.31), offence skills (r=.33), 1vs1 skills (r=.35) and defence skills (r=.36). Ego involving climate had a moderate and positive correlation with performance approach goal orientation

(r=.41), performance avoidance goal orientation (r=.22) and introjected regulation (r=.20). A strong, positive correlation was also shown between enjoying the practice and intrinsic motivation (r=.77). (Table 7.)

Table 7. Means, standard deviations and correlations between the variables in under 17 years old males. N=110

	Mean	SD	1.	2.	3.	4.	5.
1.Taskinvolving	4.5	.44					
2.Enjoying	4.3	.64	.64**				
3.Sosial relatedness	4.1	.55	.48**	.38**			
4.Egoinvolving	3.3	.69	.17	-.02	-.11		
5.Autonomy	2.6	.78	.19	.15	.13	.19*	
6.Performance approach	4.0	.67	.33**	.30**	-.05	.41**	-.13
7.Mastery approach	4.5	.55	.55**	.39**	.22**	.18	-.02
8. Performance avoidance	3.2	.90	.31**	.13	.22**	.22*	-.06
9. Mastery avoidance	2.8	.83	.03	-.14	-.07	.13	.06
10. Intrinsic motivation	4.3	.75	.56**	.77**	.28**	.15	.20*
11. Introjected regulation	2.0	.96	.08	-.01	.00	.20*	.24*
12. Amotivation	1.4	.60	-.19*	-.22*	-.11	.14	.35**
13. Identified regulation	3.7	.77	.53**	.40**	.32**	.09	.25**
14. External regulation	1.5	.67	-.14	-.17	-.11	.14	.21*
15. Offence	3.8	.45	.33**	.21*	.12	-.01	.01
16. 1vs1	3.7	.59	.35**	.30*	.07	.02	.04
17. Defence	3.9	.55	.36**	.31**	.24*	.00	-.08

Note: Correlation is significant at **=0.01 level, *=0.05 level

Table 8 demonstrates the means, standard deviations and correlations between variables in female participants under 17 years old. The table shows that in MCPES, the sample reported high levels in task involving motivational climate (M=4.3) and enjoying the practice (M=4.1) and moderate levels in social relatedness (M=3.8), ego involving motivational climate (M=2.8) and autonomy (M=2.6). In BRSQ, the participants reported a high level in intrinsic motivation (M=4.2), a moderate level in identified

regulation (M=3.8) and low levels in introjected regulation (M=1.9), amotivation (M=1.3) and external regulation (M=1.4). From AGQ-S, the sample showed a high level in mastery approach goal orientation (M=4.4) and moderate levels in performance approach goal orientation (M=3.5), performance avoidance goal orientation (M=3.1) and mastery avoidance goal orientation (M=3.3). From PGSSCS they reported moderate levels in offence skills (M=3.6), 1vs1 skills (M=3.2) and defence skills (M=3.9). (Table 8.)

Task involving motivational climate had a strong, positive correlation with enjoying the practice (r=.62), social relatedness (r=.71) and intrinsic motivation (r=.54) and a moderate, positive correlation with identified regulation (r=.43). Ego involving motivational climate correlated moderately and positively with performance avoidance goal orientation (r=.34), introjected regulation (r=.45) and amotivation (r=.31). Other strong and positive correlations found in this table are between enjoying the practice and social relatedness (r=.61), enjoying the practice and intrinsic motivation (r=.86) and social relatedness and intrinsic motivation (r=.50). (Table 8.)

SPSS independent T-test showed some differences between the means of the variables in under 17 years old female and male participants. Male participants reported higher means in perception of offence skills and 1vs1 skills than female participants. Male participants also reported a higher mean in performance approach goal orientation but a lower mean in mastery avoidance goal orientation than female participants. Under 17 years old female participants had a lower mean in ego involving motivational climate than male participants.

Table 8. Means, standard deviations and correlations between the variables in under 17 years old females. N=40

	Mean	SD	1.	2.	3.	4.	5.
1.Taskinvolving	4.3	.50					
2.Enjoying	4.1	.81	.62**				
3.Sosial relatedness	3.8	.77	.71**	.61**			
4.Egoinvolving	2.8	.72	-.01	-.18	-.15		
5.Autonomy	2.6	.64	.07	.53	.07	.24	

6.Performance approach	3.5	.80	.08	-.08	-.19	.27	.19
7.Mastery approach	4.4	.51	.01	.12	-.21	-.09	.04
8. Performance avoidance	3.1	.98	.15	-.22	.01	.34*	.22
9. Mastery avoidance	3.3	.81	.09	-.14	.01	.21	.17
10. Intrinsic motivation	4.2	.73	.54**	.86**	.50**	-.13	.10
11. Introjected regulation	1.9	.80	.11	-.40*	-.09	.45**	-.05
12. Amotivation	1.3	.64	-.26	-.34*	-.27	.31*	.13
13. Identified regulation	3.8	.79	.43**	.37*	.31	.09	.07
14. External regulation	1.4	.49	.04	-.37*	-.17	.26	.07
15. Offence	3.6	.39	.08	.41**	.23	.02	.03
16. 1vs1	3.2	.60	-.13	.25	-.03	.14	.03
17. Defence	3.9	.55	.06	.37	.17	.10	-.02

Note: Correlation is significant at **=0.01 level, *=0.05 level

9 Discussion

9.1 Main results

The first purpose for this study was to examine how 12-17 years old, female and male soccer players experience their motivational climate. The study showed that the experienced motivational climate was more task involving than ego involving. Male participants experienced the motivational climate more ego involving than female participants, but both sexes and all age groups experienced the climate as more task involving than ego involving. The second purpose for this study was to examine is the motivational climate associated with their goal orientation, motivation and perceived competence. Task involving motivational climate had the strongest, positive association with enjoying the practice and social relatedness. It also had positive association with mastery approach, intrinsic motivation, identified regulation and defence and offence skills. Ego involving motivational climate had the strongest association with performance approach and performance avoidance goal orientations and also an association with introjected regulation

9.2 Task involving motivational climate

9.2.1 Motivational climate factors

The study showed that task involving motivational climate was strongly and positively associated with enjoying the practice, social relatedness and autonomy. An independent samples t-test showed a statistically significant difference in the means of autonomy factor. Male participants reported higher scores in autonomy than female participants. This could be caused by females generally being more obedient and possibly more cautious with their actions than males. The results are consistent with previous research (Kavussanu & Roberts 1996), where task involving motivational climate was positively related to enjoyment and satisfaction of the practice. Social relatedness is one of the basic human needs (Deci & Ryan 1985, 64-65.) Football being a team sport makes social relatedness important when building team cohesion. According to a study conducted by Albert V. Carron, Steven R. Bray and Mark A. Eys, (2001, 119-126) there is a strong relationship between team cohesion and team success. Enjoying the practice

was positively associated with intrinsic motivation and also with social relatedness. It's possible to conclude that athletes who operate in task involving motivational climate enjoy the practice more and experience more social relatedness.

9.2.2 Achievement goal orientation factors

From the variables in AGQ-S, task involving motivational climate was positively associated with mastery approach goal orientation. Task involving motivational climate encourages the athletes to set goals that conform their own standards (Dunn, Dunn, & Syrotuik 2002, 152). SPSS independent samples t-test showed a statistically significant difference in the means of mastery approach goal orientation between female and male participants. Male participants reported a higher mean than female participants did. From the goal orientation questions, participants reported highest levels in mastery approach goal orientation. Female participants reported lowest levels in performance avoidance goal orientation except U13 group, which reported the lowest levels in performance approach goal orientation. Male participants reported the lowest levels in mastery avoidance goal orientation in all age groups.

9.2.3 Motivation factors

From the variables in BRSQ, the sample reported a strong, positive association between task involving motivational climate and intrinsic motivation and task involving motivational climate and identified regulation. Similar results were found in a study conducted by Jaakkola 2002 and Liukkonen (1998). In their study they found that high levels of task involving motivational climate and mastery approach goal orientation are related to intrinsic motivation. According to Self-Determination theory (Deci & Ryan 1985, 64-65), autonomy is one of the basic human needs and an important determinant of intrinsic motivation. The association with task involving motivational climate and intrinsic motivation is logical given the fact that autonomy was positively related to task involving motivational climate as well. Athletes who are intrinsically motivated enjoy sports more and are more likely to experience the feeling of flow (Csikszentmihalyi 1990, Kowal & Fortier 1999, 37-42.) Identified regulation is quite close to intrinsic motivation out of all of the levels of extrinsic motivation. With intrinsic motiva-

tion having a strong association with task involving motivational climate, it was assumable that identified regulation is associated with it as well. Task involving motivational climate had a negative association with amotivation and external regulation. The more task involving the participants experienced the climate to be, the lower level of amotvation and external regulation was reported.

9.2.4 Perceived competence factors

Task involving motivational climate was positively associated with offence skills and defence skills from the PGSSCS questions. An independent sample t-test showed that there was a statistically significant difference in the means of offence skills in male and female participants. Male participants reported a higher mean in offence skills than female participants. The participants showed highest competence levels in defence skills except male U17 group which showed the same level in defence and offence skills. The participants showed lowest levels in 1vs1 skills except males U14 and U13 who reported same levels in 1vs1 skills and offence skills.

9.3 Ego involving motivational climate

9.3.1 Achievement goal orientation factors

Ego orientation is strongly related to normative comparison and performing better than others (Nicholls 1989, 152). According to the study, ego involving motivational climate had a positive association with performance approach and performance avoidance goal orientations. Thus, athletes who operate in an ego involving motivational climate, exhibit performance approach goal orientation, they want to be competent compared to others, and performance avoidance goal orientation, where they want to avoid performing worse compared to others. This can be caused by external pressure. If the athlete feels he has to perform well because someone expects him to, it is likely he will be ego oriented by goal orientation. This finding was supported by another research from the topic. Smith et al., found a relation between ego oriented motivational climate and performance approach goal orientation as well (2009).

9.3.2 Motivation factors

Ego involving motivational climate had a strong, positive association with introjected regulation, which is one of the four types of extrinsic motivation. Introjected regulation is a probable cause of performance avoidance goal orientation and like mentioned above, ego involving motivational climate was also positively associated with performance avoidance goal orientation. In introjected regulation, the athlete wants to avoid a feeling of quilt if he performs poorly. The feeling of quilt could, for example be caused by high expectations from the coach or parents.

9.4 Differences between females and males

An independent samples t-test showed a statistically significant difference in experiencing ego involving motivational climate. Male participants reported a higher mean in ego involving motivational climate than female participants. Similar results were shown in a study conducted by Veli-Pekka Dufva 2004, where male participants showed higher levels in ego involving motivational climate than female participants as well. Male participants also reported higher means in ego oriented goal orientation than female participants in both studies. Females usually experience the group or team as a more important motive to participate than males do. This can be an assumable reason for females reporting lower means in ego involving motivational climate than males. Also male players generally tend to enjoy competition more than female players, which could also explain the differences. A difference between males and females can also be found from autonomy factor. Male participants reported higher means in autonomy than female participants. This could be caused by males being more spontaneous is group setting than females. Females tend to need more structure in their action than males.

9.5 Limitations and further studies

The target group for this study was 12-17 years old, female and male football players, a total of 969 participants so the results can be cautiously generalized to all 12-17 years old football players in Finland. The testing situation was the same for every team and each time so can be said that the study is reliable. The reliability of this study, however,

can be decreased because the young age of the participants can affect understanding the questions. Further studies could be conducted by comparing the results to other sports or other countries. It would be interesting to know how, athletes in other countries experience their group dynamics and motivational climates compared to Finnish athletes and teams.

9.6 Conclusions

As a conclusion, can be observed that players who practice in task involving motivational climate enjoy the practice more and are more socially related. This would further indicate that team cohesion is better in task involving climate than in ego involving climate. (Albert V. Carron et al. 2001, 119-126.) Also, athletes who practice in task involving climate are more intrinsically motivated than athletes who practice in ego involving motivational climate. Task involving climate also decreased the level of amotivation and external regulation in practice. Ego involving motivational climate had a consistent, positive association with being ego oriented by goal orientation. Ego involving motivational climate also had an association with introjected regulation, so can be said that players operating in ego involved motivational climate are more externally motivated than players in task involving motivational climate. Even tough ego involving motivational climate is positively associated with some type of external motivation, it doesn't mean it's only bad for the athlete. Soccer is a competitive sport and competition is needed in the practice. An athlete can be both, task and ego oriented by their goal orientation and the motivational climate can be partly task involving and partly ego involving. According to a study by Veli-Pekka Dufva, athletes who operate in an environment where the motivational climate is high in task involving and high in ego involving, have the most intrinsic motivation (2004).

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