

**THE RELATIONSHIP BETWEEN CONTROLLING COACHING BEHAVIOR,
FEAR OF FAILURE, AND ACHIEVEMENT GOALS IN YOUTH ICE
HOCKEY PLAYERS**

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Master's Thesis in Sport and
Exercise Psychology
Spring 2018
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ABSTRACT

Tossavainen Aleks, 2018. The relationship between controlling coaching behaviour, fear of failure and achievement goals in youth ice hockey players. Faculty of Sport and Health Sciences. University of Jyväskylä. 28 p.

A notable volume of research has been conducted on controlling coaching behavior, fear of failure, and achievement goals. However, limited research has been done utilizing all three elements in a single study. Previous literature suggests that fear of failure is positively related to mastery-avoidance (MAv), performance-approach (Papp), and performance-avoidance (PAv) achievement goals (Conroy & Elliot, 2004) and can change achievement motivation goals more towards avoidance behavior (Conroy & Elliot, 2004). Conroy and Coatsworth (2007) have argued that controlling coaching behavior may influence the progress of athletes' fear of failure. This study involved 336 competitive youth ice hockey players aged between 15 to 16 years from Finland. The players completed the Performance Failure Appraisal Inventory (PFAI; Conroy, 2001), the 2 x 2 Achievement Goals Questionnaire for Sport (Conroy, Elliot & Hofey, 2003), and the Controlling Coach Behaviour Scale (CCBS; Bartholomew, Ntoumanis, & Thøgersen-Ntoumani, 2010). The results showed that fear of failure was positively related to mastery-avoidance and performance-avoidance goals. Controlling coaching behavior was positively related to fear of failure, but it was not significantly related to players' achievement motivation goals. However, controlling coaching behavior was positively associated with achievement goals via fear of failure. The results showed that fear of failure moderated the relationship between controlling coaching behavior and achievement avoidance goals.

Keywords: coach, coaching behavior, youth sports, athletics, sports performance.

TABLE OF CONTENTS

ABSTRACT

1 INTRODUCTION	4
2 PURPOSE OF THE STUDY	9
3 METHODS	10
3.1 Participants	10
3.2 Instruments	10
3.3 Measures	12
3.4 Data analysis	12
4 RESULTS	12
5 DISCUSSION	16
6 REFERENCES	21

1 INTRODUCTION

Understanding and enhancing sports performance are goals of sport psychology research. One of the key aspects of sports performance in athletes is motivation. Although the definition of motivation may be debatable, research on motivation for the past forty years in the physical education and sporting context, has been focused on social-cognitive approaches (Roberts, 2012; Roberts, Treasure, & Conroy, 2007). One of the main social-cognitive motivation theories is achievement goal theory, which has been a dominant framework for researching achievement motivation in the competitive sport context since the late 1980s (Lochbaum, Çetinkalp, Graham, Wright & Zazo, 2016). However, achievement motivation can change over time, and individual-difference variables such as fear of failure, may increase the likelihood of this change (Fryer & Elliot, 2007). Fear of failure can affect motivation, and direct it towards avoidance behavior, which is a pattern of avoiding situations or interactions (Conroy & Elliot, 2004). On the other hand, controlling coaching behavior can influence the development of athletes' level of fear of failure (Conroy & Coatsworth, 2007). The purpose of this study was to extend the knowledge of achievement goals, fear of failure and controlling coaching behavior, by investigating these three elements together.

Controlling coaching behavior

A big influence in competitive sports, especially among the younger athletes is the existence and function of a coach. Athletes may experience many ups and downs during their athletic career and their coach may be one of the most influential person in their lives. Coaches influence athletes' performance, and the psychological experiences athletes face during their career (Vallerand & Losier, 1999). Coaching is an important factor to examine since high-quality coaching can lead to athletes flourishing in and outside athletics, while low-quality coaching can lead to negative consequences. For example, controlling coaching behavior may influence the progress of athletes' fear of failure (Conroy & Coatsworth, 2007), which can lead to negative consequences such as changing athletes' achievement goals more towards avoidance-behavior (Conroy & Elliot, 2004).

Coaching context has been studied with various instruments, such as the Leadership for

Sport Scale (LSS; Chelladurai & Saleh, 1980), the Coach Behaviors Assessment System (CBAS; Smith, Smoll, & Hunt, 1977), and the Coaching Behavior Scale for Sport (CBS-S; Côté, Yardley, Hay, Sedgwick, & Baker, 1999), to evaluate the impact of different coaching behaviors (Bartholomew et al., 2010).

The main theories used by recent studies on coaching behavior have been self-determination theory (Deci & Ryan, 1985), achievement goal theory (Nicholls, 1989) and competence motivation theory (Harter, 1978), to comprehend the importance of coaches' behaviors impact on athletes (Wang et al., 2009). The current study uses Coaching Behavior Scale for Sport (CBS-S; Côté, Yardley, Hay, Sedgwick, & Baker, 1999) to evaluate whether the players perceived their coach as controlling and how this would affect them. Previous literature has linked controlling coaching behavior to controlling interpersonal styles, like pressuring and an authoritarian way of coaching. This may change athletes' perceived locus of causality from internal to external (Bartholomew et al., 2010). Controlling coaching can be assumed to bring negative consequences, and therefore it is vital to have a better understanding of how controlling behavior may influence athletes.

Fear of Failure

Fear of failure plays a vital part in competitive sport context, and has been identified as having a big role in achievement behavior (Conroy & Elliot, 2004). In a sporting context, fear of failure has been suggested to benefit certain athletes to achieve their goals (Conroy, 2001). However, it has been mostly linked with negative consequences, such as sub-optimal performance, avoidance-behavior and self-handicapping (Chen et al., 2009; Conroy & Elliot, 2004; Elliot & Church, 2003). Murray (1938) explained fear of failure as an energizing factor of human behavior. Fear of failure was seen in the early research as a motive to avoid failure, which is linked to anticipatory shame (Atkinson, 1957) or to dispositional tendencies to behave in ways that decrease the probability of experiencing failure (McClelland, Atkinson, Clark, & Lowell, 1953). In the short-term, this can cause issues such as frustration and decreased performance, and in the long run it can become a barrier to participation in achievement settings. This can lead to individuals not wanting to try new things, when there is a chance of failure (Conroy, 2001; Sagar, Lavalley & Spray, 2007).

The current study applied multidimensional model of fear of failure (PFAI; Conroy, 2001), since it has been the most frequently used model in the sports context. It was integrated from the cognitive-motivational-relational theory of emotion (Lazarus, 1991). Lazarus (1991) created the cognitive-motivational-relational theory of emotion and the theory explains for how fear of failure occurs. The fear of failure arises when beliefs or cognitive schemas about failing are activated. In other words, when an individual feels state anxiety about a certain situation and feels that there is a possibility for failing, this can trigger fear of failure (Conroy, 2004; Lazarus, 1991).

The multidimensional model of fear of failure by Conroy and colleagues (2001, 2002) includes five different consequences of failing: 1) experiencing shame and embarrassment, 2) devaluing one's self-esteem, 3) having an uncertain future, 4) important others losing interest, and 5) upsetting important others (Conroy, 2001, 2003; Conroy, Willow & Metzler, 2002; Conroy, Metzler, & Hofer, 2003). These five consequences of failing are intercorrelated, so that a higher-order fear of failure model can be represented. The higher-order dimension was formed from the short version of the instrument and it comprises of five items, one from each dimension (Conroy, 2004; Conroy et al., 2002, 2003).

Conroy and his colleagues studied the relationship between fear of failure and achievement goals (Conroy, 2004, Conroy & Elliot, 2004). Their findings matched the previous research with achievement goals, showing that fear of failure can affect the achievement goals and cause an individual to adopt avoidance achievement goals (Elliot, 1997; Elliot & Church, 1997; Elliot & McGregor, 1999, 2001). Furthermore, reducing fear of failure can decrease the likelihood of an individual having sub-optimal or dysfunctional achievement motivation. Therefore, further research in this area is warranted (Conroy & Elliot, 2004).

Achievement goals

Achievement goal theory has its roots in the education setting (Ames, 1987; Dweck & Elliot, 1983; Maehr, 1984; Nicholls, 1984, 1989), and in earlier research, the goals of achievement have been defined as the purpose of how a person approaches and interprets a specific situation (Maehr, 1989). According to Roberts (2001), achievement

goals reflect how individuals evaluate their personal competence in achievement settings. Competence is seen as the core of the achievement goal construct (Elliot & McGregor, 2001). Competence can be formed from two separate dimensions; how the situation is *defined*, and how the situation is *valenced* (Conroy, Elliot & Hofer, 2003; Elliot, 1999). Three evaluative standards can define competence: an absolute standard, the requirement for the situation or task; an intrapersonal standard, person's past or potential attainment; and a normative standard, others' level of performance. Together, absolute and intrapersonal competence create the mastery goal rubric, and normative competence achievement goal creates the performance goal rubric (Conroy, Elliot & Hofer, 2003). The valence of competence means that a situation is seen either in positive (i.e., success) or in negative terms (i.e., failure) (Elliot & McGregor, 2001). An approach valence is seen as positive or desired outcome, whereas avoidance valence is seen as negative or undesirable outcome (Lochbaum et al., 2015). These elements create a 2 x 2 achievement goal framework (Conroy, Elliot, & Hofer, 2003; Elliot, 1999; Elliot & McGregor, 2001).

The 2 x 2 achievement goal framework (Elliot & McGregor, 2001) consists of four different parts. They are mastery-approach (MAp), mastery-avoidance (MAv), performance-approach (PAp) and performance-avoidance (PAv). The competence in mastery-approach goal can, for instance, be going for the personal best game performance in an ice hockey game. This approach focuses on improving one's own performance and seeing it as a measurement of progress. The competence in mastery-avoidance goal would be trying to avoid not doing worse than before. For example, the player can be afraid that the performance might not be as good as before. Although this approach is still centered on ones' own performance, it focuses on avoiding a certain situation. Performance-approach goal defines success in normative achievements, such as focusing on scoring more goals than other players or winning. The competence in performance-approach goal can for example refer to an attempt to perform better than others. This approach focuses to situations as competitions and the player is evaluating the situations based on winning or losing. The performance-avoidance focuses on not doing worse than others. For example, an ice hockey player may focus on not missing more scoring opportunities than other players.

Relationship between controlling coaching behavior, fear of failure and achievement goals

Controlling coaching behavior, fear of failure and achievement goals are all important topics in the context of sports. However, literature on the relationship between all three of these elements in a single study remains scarce. Previous literature suggests that controlling coaching may influence athlete's levels of fear of failure (Conroy & Coatsworth, 2007). However, research supporting this postulation in the context of youth sports is limited. The relationship between controlling coaching behavior and achievement goals has also largely been unexplored, in youth sports context. The earlier literature has mostly been focused on the relationship between fear of failure and achievement goals, and it has been suggested that fear of failure may have a causal influence on achievement goal. In addition, it has been suggested that increased levels of fear of failure can lead to increased avoidance-oriented behavior for athletes (Conroy & Elliot, 2004).

2 PURPOSE OF THE STUDY

The general purpose of this study was to examine the relationships between achievement goals, fear of failure and controlling coaching behavior. This study had three aims. The first aim of the study was to extend the knowledge of relationship between fear of failure and achievement goals in the sporting context. It was hypothesized that fear of failure would be a positively associated with MA_v, PA_p, and PA_v goals, but would be unrelated to MA_p goals (hypothesis 1). The second aim of the study was to test the direct effects of controlling coaching behavior to players' fear of failure and achievement motivation goals. It was hypothesized that controlling coaching behavior would be associated with higher levels of fear of failure and avoidance-behavior (hypothesis 2). The third aim of the research was to examine whether fear of failure would moderate the relationship between controlling coaching behavior and achievement goals. Moderator effect means that the association between fear of failure and achievement motivation goals depends on the level of controlling coaching. It was hypothesized that fear of failure would work as a moderator and be positively associated with MA_v, PA_p, and PA_v goals, but would be unrelated to MA_p (hypothesis 3). This means that higher levels of controlling coaching would lead to higher levels of fear of failure, which would be related to higher levels of MA_v, PA_p, and PA_v goals. Evidence pointing toward fear of failure working as a moderator between controlling coaching behavior and achievement goals has been somewhat thin, although controlling coaching behavior has been suggested to affect athlete's levels of fear of failure (Conroy & Coatsworth, 2007). Furthermore, fear of failure has been positively associated with MA_v, PA_p, and PA_v goals (Conroy & Elliot, 2004).

3 METHODS

3.1 Participants

Three hundred twenty-three male Finnish youth ice hockey players (age 15 – 16 years) participated in the study. To ensure a good geographical representation, a total of 108 ice hockey teams were picked from several parts from Finland. All of the participants were actively involved in competitive youth ice hockey at the time of the study.

3.2 Instruments

Controlling coaching behavior

Participants' perceptions of the coaches' interpersonal style were examined using the Controlling Coach Behaviour Scale (CCBS; Bartholomew, Ntoumanis, & Thøgersen-Ntoumani, 2010). The questionnaire consists of 16 items and measures scores for five different dimensions. The five dimensions were: 1) controlling use of rewards "My coach tries to motivate me by promising to reward me if I do well", 2) negative conditional regard "My coach is less friendly with me if I don't make the effort to see things his/her way", 3) intimidation "My coach shouts at me in front of others to make me do certain things", 4) excessive personal control "My coach expects me to put my sport before other important parts of my life", 5) judging and devaluing "My coach evaluates me negatively if I perform badly". Dimensions 1, 2, 3 and 4 had three items and dimension 5 had four items. Participants were asked to think about their experiences about their ice hockey coach and how they believed the statements were true or significant in their own opinions. Responses were completed on a 5-point scale, which ranged from 1 (Completely disagree) to 5 (Completely agree). Acceptable internal consistency and factorial validity has been reported of the Controlling Coach Behaviour Scale previously (Bartholomew et al., 2010)

Fear of failure

The Performance Failure Appraisal Inventory (PFAI; Conroy, 2001; Conroy et al., 2002) was used to evaluate fear of failure of the participants. The 25-item questionnaire was designed to measure scores for five beliefs about aversive consequences of failing and one higher-order factor, which represents general fear of failure (FF). The five subscales were: 1) fears of experiencing shame and embarrassment, e.g., "When I am

failing, I expect to be criticized by important others'', 2) fears of devaluing one's self-estimate, e.g., "When I am failing, I lose respect for myself", 3) fears of having an uncertain future, e.g., "When I am failing, I believe that my future plans will change", 4) fears of important others losing interest, e.g., "When I am not succeeding, people seem to want to help me less", and 5) fears of upsetting important others, e.g., "When I am failing, I let down people who depend on me". All of the statements had a scale from 1 (Completely disagree) to 5 (Completely agree). Participants were asked to think about their experiences in sport events and how they believed these statements were true or significant in their own opinion. Responses were completed on a scale, which ranged from 1 (completely disagree) to 5 (completely agree). Conroy and colleagues (Conroy et al., 2003; Conroy, 2004) have indicated that the PFAI scores have sound psychometric properties, including high internal consistency, external validity, predictive validity and factorial invariance between groups and over time. There is indicative evidence that the PFAI has differential validity, latent mean stability and differential stability (i.e., test-retest reliability $>.80$) (Conroy, 2004; Conroy et al., 2003). The internal consistency has shown to be slightly lower for the short version (.72) than that of the long version (.91 for all 25 items) (Conroy et al., 2002; Sagar & Jowett, 2010).

Achievement goals

The 2 x 2 Achievement Goals Questionnaire for Sport (AGQ-S; Conroy et al., 2003) was used to evaluate participants' achievement goals in the sport setting. The questionnaire includes 12 questions to measure mastery approach (MAp), mastery avoidance (Mav), performance approach (PAp), and performance avoidance (Pav) achievement goals. Mastery-approach goals focus on improving one's own performance and seeing it as a measurement of progress, e.g., "It is important for me to master all aspects of my performance". Mastery-avoidance goal focus on avoiding not doing worse than before, e.g., "Sometimes I'm afraid that I may not perform as well as I'd like). Performance-approach goal use normative achievements, such as focusing on scoring more goals than other players or winning, e.g., "It is important for me to perform better than others". Performance-avoidance focused on not doing worse than others, e.g., "I just want to avoid performing worse than others".

Participants were asked to think about their experiences in sport events and how they believed the statements were true or significant in their own opinions. Responses were

completed on a scale, which ranged from 1 (Completely disagree) to 5 (Completely agree). The Achievement Goals Questionnaire for Sport was adapted to Finnish from the original Achievement Goals Questionnaire (Elliot & McGregor, 2001) to be applicable for sport setting. The AGQ-S scores have showed evidence of external validity, differential stability and latent mean stability (Conroy, 2004; Conroy et al., 2002).

3.3 Procedure

The participants received the questionnaire via regular postal mail, which included a cover letter and all the required forms. The participation rate was 54%, with 323 players returning completed questionnaires out of 600 players. Participants were encouraged to go over the material with their parents or guardians due to their age. The cover letter included the purpose of the study, the ethical statement and their rights to either participate or not. Prior to completing the questionnaires, the participants guardians signed a consent form. The data collection and background information were carried out with survey questionnaires (Finnish/ Swedish, and paper/ electronic format). Participation in this study was voluntary and those who were willing to participate had to replied and returned the questionnaires.

3.4 Data analysis

Several preliminary analyses were conducted to test the psychometric properties of the measures. The preliminary analyses included checking for missing values, identifying multivariate outliers, calculating means, standard deviations, scale reliabilities, correlations and testing for univariate and multivariate normality (i.e., skewness, outliers and kurtosis). All of the study variables were tested using SPSS 21.0. Confirmatory factor analyses (CFA) was used to examine the factorial structure of the instrument using Mplus (version 7.1, Muthén & Muthén, 1998–2011). The results for CFAs were satisfactory for all three of the instruments. The factor loadings were also tested, and they varied between 0.77 and 0.91 (controlling coaching behavior), 0.78 and .92 (fear of failure) and .50 and .88 (achievement goals). All of the factor loadings were statistically significant ($P < .005$). Structural equation modeling was used to examine the study hypotheses. The analyses were performed using the maximum likelihood with robust standard errors estimation method (MLR) applied in Mplus. The models were tested using the full information maximum likelihood method with the standard errors

and chi-square test adjusting for non-normality. The standard errors and chi-square test are robust in the non-normal distribution (MLR estimator in Mplus). Furthermore, the model fit was tested using the root mean square error of approximation (RMSEA) and standardized root mean square residual (SRMR). A good model fit is indicated when score of the RMSEA is smaller than .06; and the RMSEA is smaller 0.08 (Hu & Bentler, 1999). Since controlling coaching behavior and fear of failure strongly correlated together, a secondary order factors were created for controlling coaching behavior.

4 RESULTS

Table 1 presents descriptive statistics and latent factor correlations of the six research variables used in the study. Fear of failure and controlling coaching behavior had the lowest mean scores, while mastery-approach had the highest. Performance-avoidance had the highest standard deviation and mastery-approach the lowest. Latent factor correlation analysis showed that fear of failure was positively related to mastery-avoidance, performance-avoidance and to controlling coaching behavior. Two of the four achievement goals were significantly related to each other. The strongest correlation was between performance-approach and performance-avoidance. Mastery-approach was not significantly related to mastery-avoidance and performance-avoidance. The controlling coach behavior dimension was positively related with mastery-avoidance, performance-avoidance and fear of failure. Controlling coaching behavior was also negatively correlated with mastery-approach.

Structural equation modeling was used to investigate the effects of controlling coaching behavior, fear of failure and achievement goals. The purpose of the model was to examine the effects of fear of failure on achievement goals and whether controlling coaching behavior would increase the players' fear of failure or affect their achievement goals. Fear of failure and controlling coaching behaviors second orders factors were able to explain the achievement motivation goals. As seen in Figure 1, fear of failure was positively related to mastery-avoidance and performance-avoidance goals, but unrelated to mastery-approach and performance-approach. Controlling coaching behavior was positively related to fear of failure, but did not have a significant effect on achievement goals. The interaction model of controlling coaching and fear of failure

was omitted as it did not have any significant relationships with achievement motivation goals.

As seen in Figure 2, fear of failure moderated the relationship between controlling coaching behavior and achievement goals. The results showed that fear of failure did work as a moderator and was positively associated to both mastery- and performance-avoidance goals. However, the relationship was unrelated to mastery-approach and performance-approach achievement goals. The explained variance (i.e., effect size = .46) indicated that change in controlling coaching behavior explained 22% change in fear of failure. The relationship of fear of failure working as a moderator indicated that 6% in mastery-avoidance and 1% in performance-avoidance were explained by change in controlling coaching behavior via fear of failure.

TABLE 1 Descriptive statistics and latent factor correlation

Variable	Mean	SD	α	1	2	3	4	5
1. Fear of failure	2.09	.60	.91					
2. Mastery-Approach	4.59	.46	.66	-.12				
3. Mastery-Avoidance	2.92	.93	.76	.58**	-.05			
4. Performance-Approach	3.92	.90	.82	.12	.37**	.32**		
5. Performance-Avoidance	3.31	1.05	.77	.27**	.11	.49**	.69**	
6. Controlling coaching behavior	1.85	.82	.72	.46**	-.15*	.38**	.10	.20*

Note. * $p < .05$; ** $p < .01$

FIGURE 1 Structural model illustrating parameters for controlling coaching behavior, fear of failure and achievement goals. Note. ** $p < .01$

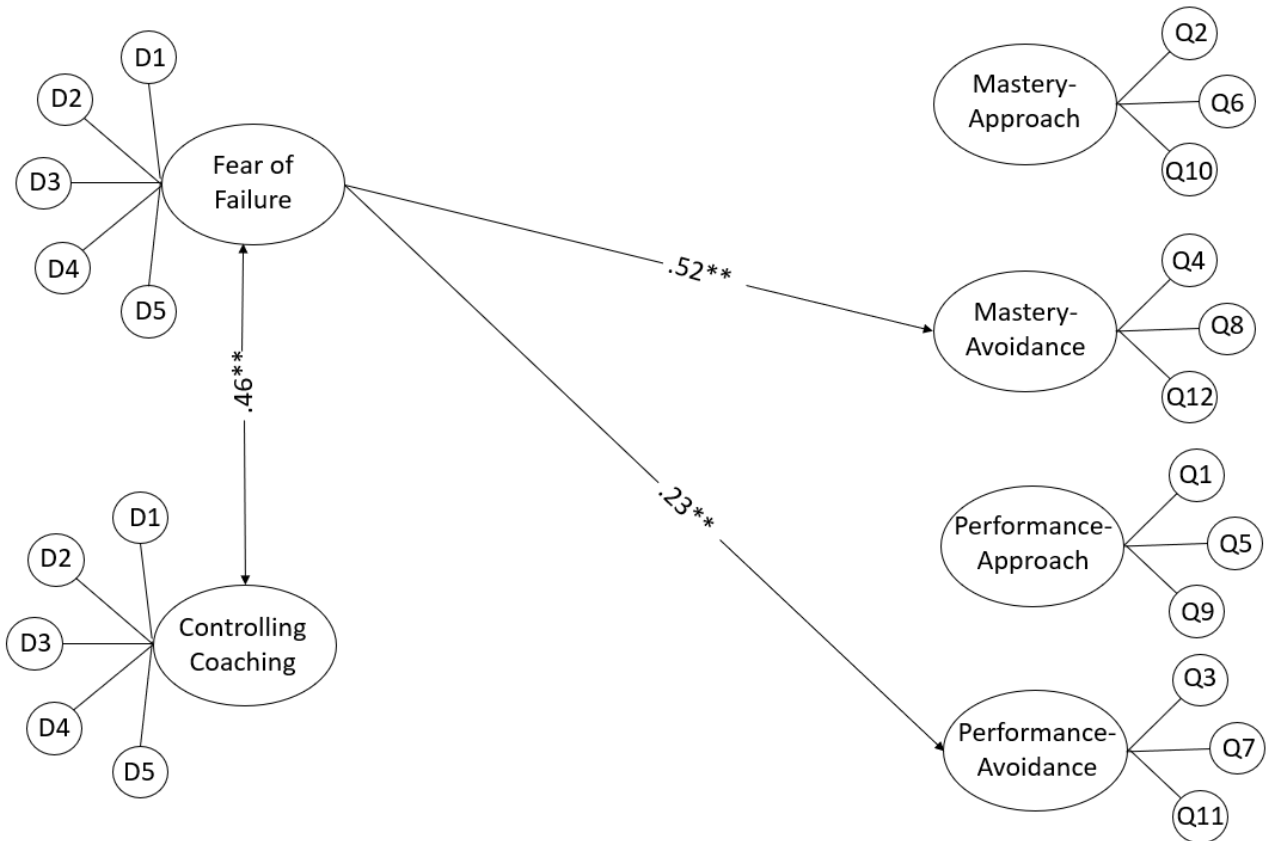
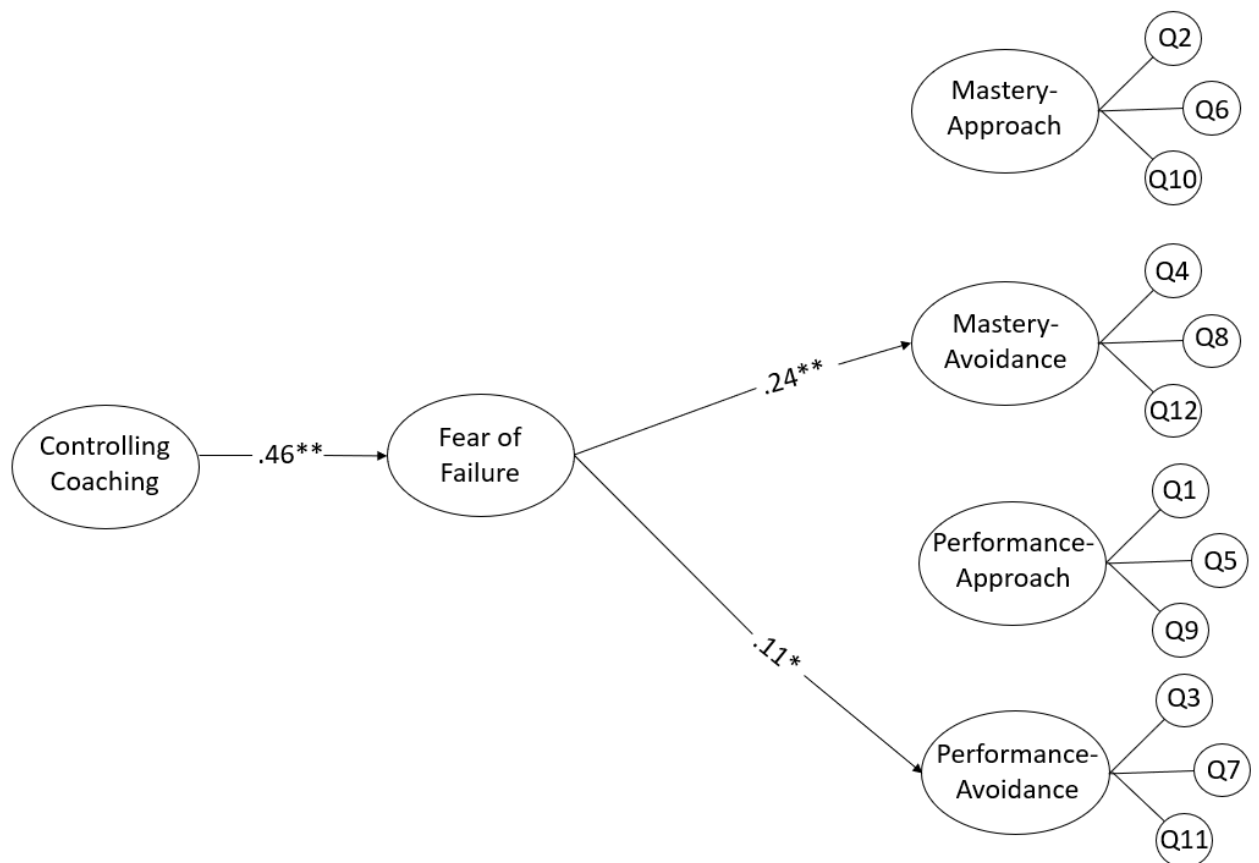


FIGURE 2 Structural model illustrating the moderator effect of fear of failure between controlling coaching behavior and achievement goals. Note. ** $p < .01$



5 DISCUSSION

This study examined the relationship between achievement goals, fear of failure and controlling coaching behavior. Although there has been a great deal of research covering these three topics individually, studies combining all three of these topics has been somewhat limited (Bartholomew et al., 2010; Conroy & Elliot, 2004; Conroy & Coatsworth, 2007). The first research question aimed to examine the relationship between fear of failure and achievement goals. The previous literature suggested that fear of failure is positively related to mastery-avoidance (MAv), performance-approach

(PAp), and performance-avoidance (PAv) achievement goals (Conroy & Elliot, 2004) and can change achievement motivation goals more towards avoidance behavior (Conroy & Elliot, 2004). The first hypothesis was based on previous literature, that fear of failure would be positively associated with MAV, PAp, and PAV goals, but not with MAp goals. The results showed consistency with the literature, since fear of failure was positively related to mastery-avoidance and performance-avoidance achievement goals (Conroy & Elliot, 2004). However, given that fear of failure was not related to performance-approach goal, the hypothesis was only partially supported. The reason for performance-approach goal not being related to fear of failure may be due to the context in question. The sporting context is competitive by nature and due to the competitiveness, performance-approach may be more common and not have the same negative consequences as in other contexts, such as in education. Since fear of failure was related to avoidance-behavior and unrelated to mastery-approach goal, the results from this study is in support of the previous research of the relationship between fear of failure and achievement goals in sport context (Conroy & Elliot, 2004).

The second research question examined the relationship between the controlling coaching behavior and the players' levels of fear of failure and achievement motivation goals. It has been suggested earlier that controlling coaching behavior may affect an athlete's levels of fear of failure (Conroy & Coatsworth, 2007). However, to our best knowledge, the amount of evidence about controlling coaching behavior and achievement goals in the sporting context has been somewhat limited. The second hypothesis was that controlling coaching behavior would be associated with both fear of failure and avoidance-behavior (i.e., MAV and PAV). The results showed that controlling coaching behavior was positively related to fear of failure only. However, no significant relationships between controlling coaching behavior and avoidance-behavior, nor any of the achievement goals were found. These results were only partially consistent with the second hypothesis, because controlling coaching behavior was not positively related to avoidance-behavior. The reason for controlling coaching behavior not being related to avoidance-behavior might also be due to the pre-requisites of player selection. The players that were not able to "handle" the controlling coaching behavior might have already dropped out, so the current players might not be as affected by controlling coaching behavior as general population. As such, the youth ice hockey players may be more used to controlling coaching behavior. The current results are also

in support of the previous literature of controlling coaching being positively related to fear of failure (Conroy & Coatsworth, 2007).

The third research question studied the moderation effect of fear of failure on the relationship between controlling coaching behavior and achievement goals. As seen in figure 2, fear of failure worked between controlling coaching behavior and achievement motivations goals. There is no earlier evidence about the role of fear of failure as a moderator between controlling coaching behavior and achievement goals, in a sport context. However, controlling coaching has been previously stated to have influence on fear of failure (Conroy & Coatsworth, 2007) and fear of failure has also been positively associated with MAv, PAp, and PAv goals (Conroy & Elliot, 2004). Based on these findings, the third hypothesis was that fear of failure would work as a moderator between controlling coaching behavior and achievement goals and be positively associated with mastery-avoidance and performance-avoidance. The results showed that fear of failure worked as a moderator and was positively associated with both mastery- and performance-avoidance goals. The results were consistent with the hypothesis and the data suggests that levels of fear of failure influenced the strength of a relationship between controlling coaching behavior and achievement goals. The current study also found that the explained variance (i.e., effect size = .46) indicated that change in controlling coaching behavior explained 22% change in fear of failure. The moderator fear of failure explained 6% of change in mastery-avoidance and 1% of change in performance-avoidance. The reason for fear of failure having a significant influence on the strength of the relationship between the two variables may be because controlling coaching behavior only influences certain types of players. The players that have higher levels of fear of failure might be more vulnerable to controlling coaching and this may lead to avoidance-behavior. In contrast, players with lower levels of fear of failure might not be as impacted by controlling coaching behavior. The players with lower levels of fear of failure may have higher levels of approach-behavior and this might even work as a protective factor from controlling coaching. The current study provides further evidence on how fear of failure influences the relationship between controlling coaching behavior and achievement goals.

Since the study was carried out in competitive youth sporting context, it also adds more knowledge to the field of youth sports. Increased levels of fear of failure, avoidance-

behavior, and controlling coaching have been linked to negative consequences in athletes, it is thus vital to add more data and information in this area of research (Bartholomew et al., 2010; Chen et al., 2009; Elliot, Church, 2003). For example, controlling coaching behavior has been linked to increased problems of drop out (Pelletier et al., 2001) so having a better understanding of the topic is an important part of sports psychology research.

LIMITATIONS AND FUTURE DIRECTIONS

One of the limitations of this study is its cross-sectional nature. In the future, a longitudinal approach ought to be considered, in order to determine causal patterns, and to clarify the relations between controlling coaching behavior, fear of failure, and achievement goals. Second, all participants were youth Finnish ice hockey players. Caution should be exercised when interpreting the results or when attempting to generalize them to different countries, sports and/or age groups. Finally, our interest was to find the connections between controlling coaching behavior, fear of failure, and achievement motivation goals. Future studies should take a more in-depth approach and find the outcome effects of avoidance-behavior, fear of failure and controlling coaching behavior. For example, in the long run, it is of importance to distinguish how these factors have influenced players who have continued to participate in sports versus players who have dropped out. Additionally, it is vital to have a better understanding of why certain players have higher levels of fear of failure and what happens to these players. This way the researchers can have a better understanding of these three factors and their effects on athletes' future careers.

CONCLUSION

These findings support previous literature for the notion that fear of failure can increase players' avoidance-behavior, which has been linked to high anxiety and low performance (Conroy & Elliot, 2004; Roberts, Treasure & Conroy, 2007). The current study also found that fear of failure worked as a moderator between controlling coaching behavior and achievement goals and was positively associated with mastery-avoidance and performance-avoidance goals. Controlling coaching behavior was positively related to fear of failure, but it was not significantly related to players'

achievement motivation goals. The study was conducted in the field of youth sports and it contributes to the current literature by utilizing the relationships between controlling coaching behavior, fear of failure and achievement goals in a single study.

PRACTICAL RECOMMENDATIONS

Even though, the recommendations are based on one study, but they offer several practical implications that may be helpful for coaches of youth and professional sports. Firstly, by having more knowledge about the effects of controlling coaching behavior, fear of failure and achievement goals, the coaches will comprehend the importance of their job and the possible consequences it may have on players. With self-assessment and better understanding of these three topics, the coaches may be able to improve the quality of their coaching, identify players that might have higher levels of fear of failure, and improve their communication. Secondly, in line with these findings, better monitoring and more education possibilities for the coaches, is warranted in these topics. This way there will be a better holistic understanding of these factors and their possible consequences. This may lead to lower levels of controlling coaching behavior and lower levels of fear of failure, which could reduce players' avoidance-behavior. The coaches can independently self-reflect about the motivational strategies they apply and find healthy ways to motivate and coach the team. By doing this, it is possible to reassure the players enjoy their participation, pursue new challenges, and reach their full potential.

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