BSc in Psychology

Impact and feasibility of a self-confidence intervention among young adolescent athletes: A pilot-study

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Foreword

Submitted in partial fulfillment of the requirements of the BSc Psychology degree, Reykjavik University, this thesis is presented in the style of an article for submission to a peer-reviewed journal.

Abstract

Self-confidence has shown to be a key factor for success in sports, but only when it is high and stable. The aim of this pilot-study was to examine if a self-confidence intervention among young athletes in their organized sport environment was effective and feasible. The pilot-study method was both quantitative and qualitative. In the quantitative part the participants were adolescents from a handball team in Iceland, age ranged from 10 to 14 years, with mean age being 12.1. Males were 42.6% and females 57.4%. Participants answered a questionnaire at baseline measures and at follow-up. The questionnaire consisted of 21 questions, ten questions examining self-confidence, five questions about personal information and six questions about self-confidence knowledge. In the qualitative part the participants were four coaches of the adolescents. The coaches took part in semi-open interviews about the intervention, if it was feasible and if some changes to the intervention was needed. The results indicate that a self-confidence intervention was feasible among adolescents, however the intervention did not increase the adolescents' self-confidence. Results from the baseline measures showed that 78.7% participants knew what self confidence was and 21.3% did not know what it was. Follow-up measures conducted nine weeks into the intervention showed that 100% of the participant knew what self-confidence was.

Keywords: self-confidence, adolescents, intervention, handball, coaches, TROSCI.

Útdráttur

Einn af lykilþáttum velgengni í íþróttum er sjálfstraust, en aðeins þegar sjálfstraustið er gott og stöðugt. Markmiðið með þessari rannsókn var að athuga hvort sjálfstraustar íhlutun meðal ungra íþróttaiðkenda væri árangursrík og framkvæmanleg. Rannsóknarsniðið sem notast var við var bæði megindlegt og eigindlegt. Í megindlega hlutanum voru þátttakendurnir unglingar úr handbolta liði á Íslandi. Þátttakendur voru á aldrinum frá 10-14 ára, þar sem meðalaldur var 12.1 ár. Kynjahlutfallið var 42.6% drengir og 57.4% stúlkur. Þátttakendurnir svöruðu spurningalista á grunnlínumælingum og aftur sama spurningalista níu vikum seinna. Spurningalistinn innihélt 21 spurningar, tíu spurningar mældu sjálfstraust, fimm spurningar voru um persónuleg einkenni og sex spurningar voru um þekkingu á sjálfstrausti. Í eigindlega hlutanum voru tekin viðtöl við þjálfara þátttakenda úr megindlega hlutanum. Tekin voru hálf-opin viðtöl við þjálfarana um íhlutunina, hvort hún var framkvæmanleg og hvort þeir myndu vilja breyta einhverju við íhlutunina. Niðurstöðurnar sýndu að sjálfstraustsíhlutun á meðal unglinga var möguleg, niðurstöður sýndu hinsvegar ekki að íhlutunin hækkaði sjálfstraust þátttakenda. Niðurstöður frá grunnlínu mælingu sýndu að 78.7% þátttakendur vissu hvað sjálfstraust var og 21.3% þátttakendur vissu ekki hvað sjálfstraust var. Seinni mælingar, níu vikum eftir að íhlutun hófst sýndu að 100% þátttakenda vissu hvað sjálfstraust var.

Lykilorð: sjálfstraust, unglingar, íhlutun, handbolti, þjálfarar, TROSCI.

Impact and feasibility of a self-confidence intervention among young adolescent athletes: A pilot-study

Self-confidence is described as a feeling of trust in one´s abilities, qualities and judgment (Feltz, 1998). Self-confidence is also believed to be an important mental trait that influences sport performance (George, 1994). Athletes say that self-confidence is important for their success but only when the confidence is high, stable and resistant to uncertainty (Bacana, 2014). The term sport-confidence has been used to describe a sport-specific confidence, which is an athlete's belief that she or he has the ability to perform successfully in the sport (Vealey, 1986).

Self-esteem, self-efficacy and self-confidence are example of concepts that have been used to describe similar personal traits. These concepts are related in meaning and are based on a person´s beliefs regarding his or her abilities (Feltz, 1988). Bandura´s theory of self-efficacy has been widely used in research to investigate self-confidence in sport. Bandura described self-confidence as the strength or conviction of the belief but does not specify the level of perceived competence. On the other hand, Bandura described self-efficacy as specifying the level of perceived competence and the strength of that belief (Bandura, 1997).

Adolescence is a vulnerable time because of all the physical and psychological changes taking place (Knight, Harwood, Gould, 2017). During this stage most individuals start puberty which can make some individuals more vulnerable and making a mistake can decrease the adolescents' self-confidence. Interestingly, research has shown that athletes from a young age are capable of using psychological skills and strategies in mental skill training (Knight et al., 2017). Due to the large neurological changes that occur during adolescence and early adulthood this period in life may be a central time for adolescents to maximize the benefits of mental skill training (Knight et al., 2017). Therefore, understanding and applying psychology within youth sport settings is a key to maximize young athlete's

enjoyment, wellbeing, and sport performance (Knight et al., 2017). Athletes that do not have enough self-confidence, can have a difficult time trying to perform in the sport under pressure and tend to focus on the things they did wrong rather than what they did right. That can interfere with concentration, making the athlete nervous and more likely to perform a behaviour without success (Weinberg & Gould, 2015). Additionally, it is important to teach children and adolescents' to deal with the psychological factor of the sports because during the adolescence stage the adolescents' start to have a different view of effort and ability and start to take the sport more seriously (Knight et al., 2017).

During middle to late childhood (from 7 to 12 years), peer comparison becomes an important source of self-confidence for young athletes (Knight et al, 2017). At this age young athletes become more aware of their lack of ability and they evaluate their competence in comparison to their peers. Therefore, coaches should plan the young athletes practice environment carefully during this time by constantly rotating warm-up partners and training in groups to avoid ability grouping and cliques (Knight et al, 2017).

Benefits of sport participation among adolescents', both physically and mentally, are well documented. Research has shown that sport participation had a positive effect on mental health (Vella, Swann, Allen, Schweickle &Magee, 2016) and physical health (Cavill, Biddle & Sallis, 2001). However, when children become adolescents' many drop out of their sport, often because of lack of self-confidence. Thomas, Coté and Deakin (2007) examined what could affect drop out in sport. They found that lack of self-confidence, not having a best friend in the sport and not having a good relationship with the coach was the most frequent reasons for the drop out. Thus, working towards increasing self-confidence might be important for this age. However, to the best of the research team knowledge, no interventions studies on self-confidence had been done for this age. It was important to try to target this

age, because this age is a vulnerable time and increasing self-confidence during this age might prevent drop outs of the sport.

Relationship with peer and coaches could influence adolescents' self-confidence and it is important that the individual has positive social relationship. Adolescents' in positive social relationship with their peers and coaches are less likely to drop out of the sport (Knight et al., 2017).

Research has shown that self-confidence in sports is often higher among boys than girls (Cheng & Furnham, 2002). These finding have been linked to how the children are raised and gender-role stereotypes. Thus, it is important to have a self-confidence intervention during this age. Girls need to have more self-confidence in sports and need to learn that they can perform the sport as well as the boys (Eccles & Harold, 1991).

The support from an adult can have a significant affect on young athletes' self-confidence (Bandura, 1997; Knight et al, 2017). The coach's relationship to the athlete is considered to be the common feelings on both sides of the relationship (Jowett & Cockerill, 2002). Thus, getting a compliment or a positive feedback from the coach can have positive effect on adolescents' self-confidence. The coach-athlete relationship becomes the principal process vehicle from which needs are expressed and fulfilled. Having a good relationship with your coach has been associated with athletes that achieve top-level sport performance (Coe & Mason, 1996). If the relationship is effective, the athletes' transitions from adolescent to an adult is more likely to progress successfully (Vella, Oades & Crowe, 2013).

The aim of this pilot-study was to examine if a self-confidence intervention among young athletes in their organized sport environment was effective and feasible. Normally, young adolescents from the age 10 to 14 do not get lessons about psychological skills such as self-confidence. To decrease drop out from sports it might be critical to teach adolescents at this age about self-confidence and why it is important for them. To aid dissemination, both

practicality and usability lead the design of the intervention. Thus, it was considered important that the participants' coaches could perform the self-confidence intervention without having any prior training other than being coaches. To facilitate this the research team included sport psychologists that were responsible for the text material of the intervention and informing both coaches and parents about the intervention. Following hypotheses were put forward: (1) Adolescents can be taught what self-confidence is in a coach-delivered intervention (2) a self-confidence intervention can increase adolescents' self-confidence. Additionally, the feasibility of the intervention was examined by evaluating process, resources and management of the intervention.

Method

The pilot-study design was both quantitative and qualitative. Participants in the quantitative part were adolescents whereas their coaches took part in the qualitative part of the pilot-study. The two hypothesis put forward to evaluate the effectiveness of the intervention were tested in the quantitative part of of the pilot-study. The feasibility of the intervention was examined in the qualitative part of the pilot-study.

Participants

In the quantitative part of the pilot-study the participants were 47 adolescents from a handball team which is part of the organized sport offered to adolescents in one of the sports clubs in Reykjavík. The participants age ranged from 10 to 14 years old (Mean age = 12.1) where males were 42.6% (n = 20) and females 57.4% (n = 27).

In the qualitative part of the pilot-study, coaches of the handball participants took part in semi-open interviews, conducted on an individual basis. The participants were four coaches, one female and three males. The coaches all had a different experience of coaching, and had been coaching from 4 to 18 years. The mean coach time was 8.5 years.

Measurements

In the quantitative part of the pilot-study, a questionnaire including 21 questions was used (see Appendix A). Participants answered the questionnaire twice, at baseline, immediately before the intervention and at follow-up, nine weeks later. In the qualitative part of the pilot-study, semi-open interviews were conducted with the four coaches of the participants in this research. The interviews consisted of 17 semi-open questions (see Appendix B).

Questions on adolescents' background. Five questions measured participants age, gender, how long they had practiced handball, how much self-confidence in handball they had and how they liked handball practice.

Adolescents´ Knowledge about self-confidence. The six questions regarding participants' knowledge on self-confidence were designed by the research team. Those questions were put together and combined into a "knowledge scale" with three possible response options (i.e., "Yes/Agree", "No/Disagree", and "I don't know"). The responses were recoded as follows: "Yes/Agree" as 2, "I don't know" as 1, and "No/Disagree" as 0. The range of the knowledge scale was from 0 to 12 with Cronbach´s alpha as $\alpha = 0.626$ and $\alpha = 0.567$ at baseline and follow-up, respectively.

Adolescents Self-confidence. To measure participants' self-confidence, ten questions derived from *The Trait Robustness of Sport-Confidence Inventory* (*TROSCI)* (Faghir, Tojari and Amirtash, 2013) were used. The TROSCI is a sport self-confidence measure scale for athletes and consist of twelve questions (see Appendix C). Research has shown that the TROSCI scale has a strong reliability $\alpha = 0.731$ (Faghir, Tojari and Amirtash, 2013). In the current pilot-study, the TROSCI scale was translated and adapted to participants' age and Icelandic context. As a result, ten questions derived from the TROSCI scale were combined into a self-confidence scale with three possible response options (i.e., "Agree", "Disagree",

and “I don’t know”). The responses were recoded as follows: “Agree as 2, “I don’t know” as 1, and “Disagree” as 0. Thus, the range of the self-confidence scale was from 0 to 20. The reliability of the adapted confidence scale, measured as Cronbach´s alpha, was $\alpha = 0.525$ at baseline and $\alpha = 0.613$ at follow-up.

Semi-open interviews with coaches. The interview questions were designed to get information from the coaches on the feasibility of the intervention (i.e., regarding process, resources, and management). Since it was a coach-delivered intervention it was important to get information from the coaches on their experience of the 14-steps program of the intervention. Four questions were about personal information and asked how long the coaches had been coaching, if they were working or studying along with coaching, what team they were coaching in this program, and how far they got in the 14-step program during this research. Ten questions were used to get information on the intervention and how the coaches felt the intervention worked, how the text book material was, if there was something positive or negative about the text book, and more questions related to feasibility and accessibility. Additionally, three questions were asked to get information on how they thought it was performing the intervention two times a week, if there was anything that stood in the way of finishing the intervention and if they felt they needed more training before the intervention started.

Procedure

Prior to the pilot-study a meeting was set up for the parents and the coaches of the participants. There, the intervention was introduced and explained. This meeting was also so the coaches could see why they were taking part in this research and why it was important. The parents were asked to report to the coaches if they did not want their adolescents to take part in the pilot-study. No parent reported that their adolescent could not take part in the intervention. After the meeting the coaches were supposed to start with the intervention and

perform it twice a week for the next seven weeks. The program consisted of 14-steps, one step was supposed to take one practice. Before the coaches started with the intervention, the participants of the pilot-study answered the first round of the questionnaire. The participants answered the questionnaire before practice started in their organized practice environment. It took participants approximately ten minutes to complete the questionnaire. The participants were given a number on the baseline questionnaire and had the same number on the follow-up questionnaire. The follow-up questionnaire was answered nine weeks after the baseline questionnaire in the same environment as baseline measures.

In the qualitative part of the pilot-study the four coaches were asked to meet the researcher before practice in the gymnasium for an individually conducted interview. The coach and the researcher found a table in a quiet place to perform the interview. The interviews were taken the same day as the follow-up questionnaires were presented to the participants. Each interview took about 15-20 minutes and was conducted in order to ask the coaches about how they thought the intervention worked and if they had any ideas about how to change the intervention for future research.

The intervention. The self-confidence intervention was designed by the research team as a coach-delivered program and done in collaboration with a sports club in Reykjavík. The intervention consisted of 14-steps designed to teach adolescents about self-confidence. It also consisted of five homework projects and five emails that the coaches sent to the parents of the participants. The duration of the intervention was planned for seven weeks. The coaches were supposed to perform two steps a week, one step taking one practice.

The 14-step program. The 14-step coach-delivered program was designed to teach adolescents about self-confidence. All the steps give some guidance about self-confidence. Step 1-4: Main objectives were to introduce self-confidence.

- Steps one and two were introducing self-confidence. In step three, the team came up with their definition of self-confidence with their own words. The team definition was then collected by the coach. During step four the team got a self-confidence book in which the team members were supposed to write in what they learned about self-confidence.
- Homework and email: The homework was to tell family members about what they learned at practice and tell them what self-confidence is. The parents got an email from the coaches, explaining what the adolescents did during practice and gave the parents sample questions to ask their children about this program.

Step 5-8: Main objectives were to learn ways to have an affect on yourself and your teammates' self-confidence.

- These steps were about training your self-confidence and knowing how your behaviour could have a positive and negative effect on self-confidence. During step seven the adolescents got introduced to the concept of having an affect on their teammates' self-confidence, in both a positive and a negative way. In step eight the adolescents wrote down what they learned in steps five to seven in the self-confidence book.
- Homework and email: The homework was introducing to family members how they could have both positive and negative affect on themselves and their teammate's self-confidence. The parents got an email about what the adolescents did during practice 5-8 and sample questions that they could ask them.

Step 9: Main objectives were to learn more effective ways to train self-confidence.

- The team learned about ways to enhance their self-confidence and got a sample of positive questions that they should answer about themselves.
- Homework and email: The parents got an email with the questions that the adolescents got on step 9.

Steps 10-13: Main objectives were learning ways to have a positive impact on your teammate's self-confidence.

- Practice 11 was to write a positive thing that their teammate's did during practice on a paper that was on their teammate's back. Practice 12 was looking at that paper that the teammates wrote on and write it in the self-confidence book. Practice 13 was getting a compliment from the coach, the coach wrote a positive thing about the player in their self-confidence book.
- Homework and email: The participants' homework was to talk to family members about what the teammates' and coach wrote about them. After practice 13, the parents got an email about what the adolescents did during steps 10-13

Step 14: Main objectives were to test what the adolescents had learned.

- The coach planed a practice and had a goal on the practice that was impossible to reach. That was done to try to test what the team had learned. After they tried to perform the goal and failed the coach asked the participants' questions about how they could learn from this based on the things they had learned the past weeks.
- Homework and email: The participants' homework was to tell their parents about step 14. The parents got the last email, the coach told them about what the adolescents did on the practice and encouraged the parents to ask their children about how a team and players are supposed to react when they don't achieve their goals.

Analysis

Descriptive statistic was used to describe the variables in the pilot-study. A paired sample t-test was used to test the two hypotheses of the pilot-study. Additionally, an independent sample t-test was used to see if there was a difference between genders in self-confidence. In the quantitative part of the pilot-study statistical analysis from the computer program SPSS was used.

In the qualitative part, the feasibility of the intervention was examined. Thus, common themes related to the process, resources and management of the intervention were analysed in the coaches' answers. If one of the coaches reported differently than the other coaches, it was written down and reported in this pilot-study.

Results

Effectiveness of the intervention

Questions on adolescents' background. Distributions of gender, age and how long the participants had been practicing handball are presented in Table 1. The sample consisted of 27 females and 20 males. Most participants were 11 years old or 38.3%, and most of them had been practicing handball for 5 years or more, or 42.5%.

Table 1

Distribution of gender, age and total time practiced.

Variables	N	%
Gender		
Male	20	42.6
Female	27	57.4
Age		
10	2	4.3
11	18	38.3
12	13	27.7
13	0	0
14	14	29.8
Total time practiced		
0-2 years	16	34.0
3-4 years	11	23.5
5 years and more	20	42.5

Additionally, participants' self-confidence at baseline and follow-up was assessed with the question "how much self-confidence do you have". The results showed that participants that reported having a "very high self-confidence" at baseline were 36.2% (n = 17), and 48.9% (n = 23) at follow-up measures. In this pilot-study female athletes reported having a higher level of self-confidence than the male athletes. The number of female athletes who reported having a "very high self-confidence" increased from 40% at baseline to 55% at the follow-up

measures. The number of male athletes who reported having a "very high self-confidence" increased from 30% at baseline to 40% at the follow-up measures.

Knowledge about self-confidence. To test whether the coach-delivered intervention was effective in teaching the participants about self-confidence, a paired sample t-test was used for the question "do you know what self-confidence is". The results showed that there was a significant difference between the participants score on baseline measures (M = 1.78, SD = 0.41) and the follow-up measures (M = 2.0, SD = 0.0) (t (46) = 3.526, p = .001) and thus, the intervention increased participants' knowledge about self-confidence. At baseline 78.7% (n = 37) participants knew what self-confidence was and 21.3% (n = 10) participants did not know what self-confidence was. Follow-up measures conducted nine weeks into the intervention showed that 100% of the participants knew what self-confidence was.

Table 2 provides descriptive statistics at baseline and follow-up for the self-confidence knowledge scale. Participants' score on the knowledge scale ranged from 0 to 12. To test the difference of scores on the self-confidence knowledge scale between baseline and follow-up a paired sample t-test was used. However, the difference between baseline (M = 7.5, SD = 2.4) and the follow-up measures (M= 7.8, SD = 2.2) was non-significant (t (46) = 1.316, p = .195).

Table 2

Descriptive Statistics for Knowledge about Self-Confidence

Variable	Baseline *n* (%)	Follow-up *n* (%)
Do you know what self-confidence is?		
Yes	37(78.7)	47 (100)
No	10 (21.3)	0
Control own self-confidence:		
Yes	30 (63.8)	28 (58.6)
No	2 (4.3)	4 (8.5)
I don't know	15 (31.9)	15 (31.9
Effect on others self-confidence?		
Yes	18 (38.3)	23 (48.9)
No	3 (6.4)	3 (6.4)
I don't know	26 (55.3)	21 (44.7)
Coach effect on self-confidence:		
Agree	23 (48.9)	22 (46.8)
Disagree	10 (21.2)	8 (17.0)
I don't know	14 (29.7)	17 (36.1)
Parents effect on self-confidence:		
Agree	30 (63.8)	30 (63.8)
Disagree	10 (21.2)	9 (19.1)
I don't know	7 (14.8)	8 (17.0)
Teammates effect on self-confidence:		
Agree	19 (40.4)	21 (44.6)
Disagree	14 (29.7)	11 (23.4)
I don't know	14 (29.7)	15 (31.9)

Adolescents Self-confidence. Descriptive statistics were used to see how adolescents' scored on the self-confidence scale at baseline and follow-up. Possible range for the self-confidence scale was 0 to 20. Figure 1 shows participants' scores on the self-confidence scale at baseline. The median score was 10, the mean score was 12.3.

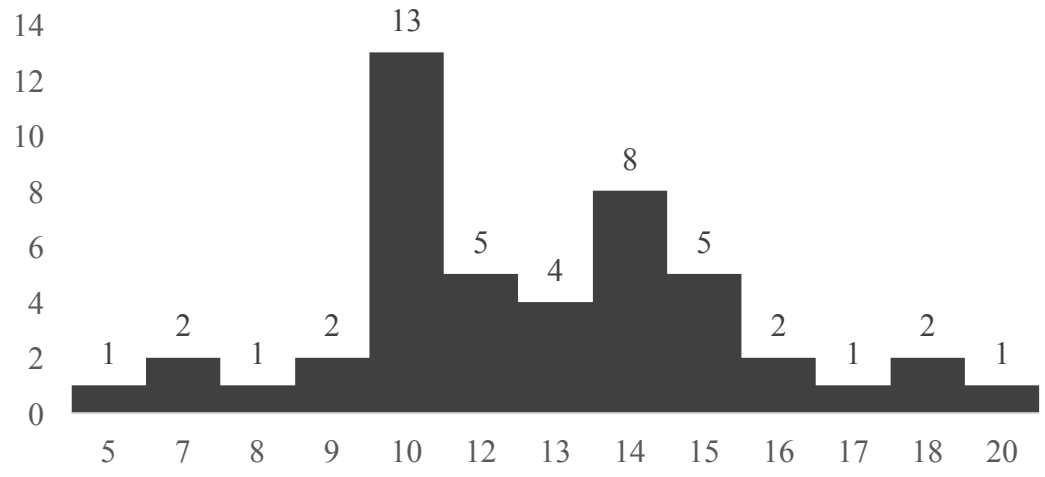

Figure 1. Participants' score on the self-confidence scale at baseline.

Figure 2 shows the results from the self-confidence scale at follow-up. The median score was 14, the mean score was 12.4.

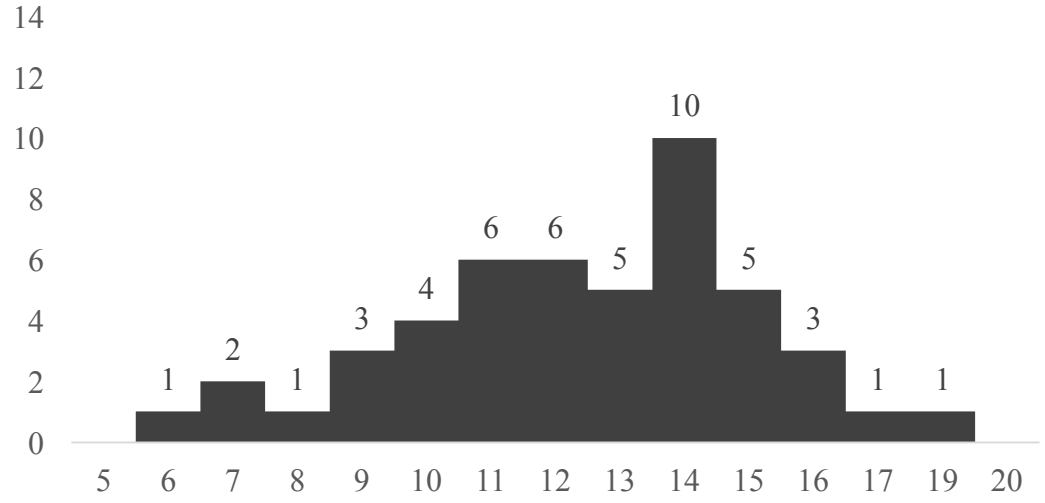

Figure 2. Participants' score on the self-confidence scale at follow up.

To test whether the intervention was effective in increasing adolescents' self-confidence, a paired sample t-test was used. No difference was found in participants' self-confidence between the baseline (M = 12.31, SD = 3.1) and the follow-up measures (M = 12.38, SD = 2.7) and thus it could be concluded that the intervention was not effective in increasing participants' self-confidence (t (46) = 0.143, p = .887). An independent sample t-test was used to examine if there was any difference between genders on the self-confidence

scale. A difference was found on gender self-confidence at baseline (p = .008), where the male athletes mean score was 13.7 (*SD* 2.9) and the female athletes mean score was 11.2 (*SD* = 2.9). At follow-up (p < .05) the male athletes mean score was 14.1 (*SD* 2.1) and the female athlete mean score 11.1 (*SD* 2.4).

The feasibility of the intervention

The feasibility of the intervention was examined by evaluating the process, resources and management of the intervention.

The process and resources of the intervention. The coaches' names were anonymous and were called C1, C2, C3, and C4. The coaches' experience of coaching ranged from 4 to 18 years, the mean coach time was 8.5 years. The coaches were asked about how they thought the intervention worked and if they would change anything about the intervention. Most of the coaches thought it was good the way it was. However, C4 felt more practice was needed for the coaches before the intervention started on how to perform the intervention. The other coaches did not think they needed more training before the intervention. All coaches reported that they would recommend the intervention to other coaches and would like to try to perform it again but preferably with more time.

C1 said that his team benefitted from the intervention in the way that the adolescents stopped criticising each other and started to encourage each other more. One member of his team that was really shy, had benefitted from the intervention and it had helped him in the way that he was not as shy anymore. C1 explained that „The parents of this member liked this program so much that they have started to use self-confidence intervention on their other children as well ".

C2 said there had been some changes in his team's attitude, and that about three team members had taken the intervention seriously. One member that was really competitive, had a difficult time loosing and being happy for other's success, really changed his attitude after the

intervention. This team member was calmer after the intervention and knew that negative behaviour would only decrease his self-confidence.

C3 said that his team did not like the intervention in the beginning because they felt it was an assignment for school. C3 said the team members learned from the intervention and were more aware and talked about their self-confidence.

C4, whose team was the oldest, said that the first three steps were similar and could have merged since they were too easy for the team. C4 did not have any stories from team members but said that the team members were willing to learn about self-confidence.

The management of the intervention. All the coaches talked about the Easter break as being a big distraction from the intervention.

C1 talked about that distractions from his personal life were the reason for not finishing the intervention on time. However, C1 got the furthest of all of the coaches, but he got to step 9 in the program. C1 said that two times a week was too much for his team due to limited attendance at practice.

C2 said that the reason for not finishing the intervention before the study was over was only due to his own lack of effort and that he was always delaying the assignment. C2 got to step 6 in the program. C2 said two times a week was too much because the team only had practice three times a week.

C3 said the fault for not finishing the intervention before the study was over was only due to his own lack of effort and two times a week should work. C3 got to step 5 in the program.

C4, said the obstacles were because the team members missed a lot of practice because they are 14 years old and had confirmation during the research period. C4 got to step 3 in the program. C4 said two times was too much and said that once per week would be perfect.

Discussion

The main purpose of this pilot-study was to examine if a self-confidence intervention among young athletes in their organized sport environment was effective and feasible. Normally, young adolescents from the age 10 to 14 do not get lessons about psychological skills such as self-confidence. Results showed that the knowledge about self-confidence increased from baseline to the follow-up measures. At baseline 78.7% (n = 37) participants knew what self-confidence was and 21.3% (n = 10) participants did not know what self-confidence was. Follow-up measures conducted nine weeks into the intervention showed that 100% participant knew what self-confidence was. These findings are consistent with Knight et al. (2017) findings, that athletes from a young age are capable of learning and using psychological skills. The results of the pilot-study showed that no difference was found in participants' self-confidence level between baseline and the follow-up measures and thus, the intervention was not effective in increasing participants' self-confidence. The mean at baseline was 12.3 and the mean at the follow-up measures was 12.4. However, there was a difference on the genders self-confidence, the male athletes scored a higher self-confidence then the female athletes. These results were consistent with Cheng and Furnham (2002) results, which found that self-confidence in sports was often higher among boys than girls. Even though there was not difference on the mean from baseline to follow-up on the self-confidence scale, there was a difference on how the participants reported their self-confidence level from baseline to follow-up. At baseline measures 36.2 % reported having a "very high self-confidence", at the follow-up measures 48.9% reported having a "very high self-confidence". There was a difference between the how the genders reported the levels of self-confidence, the female athletes reported having a higher self-confidence than the male athletes.

Several common themes were found while evaluating the process, resources and management of the intervention. On process and resources all the coaches agreed that they felt it was important to teach the adolescents about the psychological factor of sports at this young age to maximize sport performance. Even though the coaches could not complete the intervention on time, they all felt the intervention was effective, and that the adolescent were now more focused on the psychological part of the sport. These results were consistent with Knight et al. (2017), which found that understanding and applying psychology within youth sports was a key to maximize sport performance. On management all coaches said they would have liked the intervention to have started in the beginning of the season. In the beginning of the season there were not as many distractions such as competitions. If the adolescents learned about self-confidence in the beginning of the season the coaches could have used what they learned at the end of the season to motivate the team during competitions. A big factor for the intervention taking a longer time than was planned was the Easter break, another factor was that adolescents at this age are often playing more than one sport. Sometime there was not good attendance at handball practice due to the participants having to be at practice in another sport.

The effectiveness of the intervention was examined by two hypotheses using a paired sample t-test. The results supported the first hypothesis (p = .001) about if adolescents could be taught what self-confidence is through a coach delivered intervention. The results did not support the second hypothesis (p =. 887) about that the intervention could increase the adolescents' self-confidence. The feasibility of the intervention was examined in the qualitative part of the pilot-study and results showed that all the coaches reported that the intervention was feasible.

The pilot-study had some limitations, in the beginning of the pilot-study the intervention was estimated to take about seven weeks. However, for the student involved to

be able to present the result in this BSc thesis, the follow-up measures were taken nine weeks after baseline measures when none of the coaches had finished all 14-steps of the intervention. The intervention was possibly conducted at an inconvenient point in time because distractions like Easter break, confirmations and competitions took time and the coaches were not able to finish the intervention on time. Furthermore, no existing scales on self-confidence was found suitable due to the participants' young age. Therefore, the designed and adapted questions and scales used in this pilot-study had not been validated. Because of the participants age, it was also difficult to know if they understood everything on the questionnaire.

The strengths of the pilot-study were that the study was measuring psychological skills like self-confidence among young adolescents' athletes. This age is said to be a critical time for learning psychological skills. This study might be the first one focusing on interventions on self-confidence in sports among this age since the research team did not find any research on this subject. Another strength is that this was a coaches-delivered intervention and all the coaches reported that the intervention was feasible. That indicates that this intervention is suitable as a coach-delivered intervention.

In conclusion, the intervention was effective as it increased the young adolescents' knowledge about self-confidence. Also, it is clear that the intervention was feasible, however, some changes to the protocol are needed. The coaches of this pilot-study all agreed that the intervention was feasible and that it was important for the adolescents to learn about psychological skills such as self-confidence.

In future, the planned main study should make a few changes to the protocol, especially regarding the time of intervention and thus start the intervention at the beginning of a season. Additionally, it is important to validate the designed and adapted scales used in the pilot-study or even find a better measurement scale suitable for this age. Future research

should also include interviews with the adolescents and their parents before and after the intervention to get more information from different perspectives on how the intervention worked.

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Appendix A

Sjálfstrauts spurningalisti

Mikilvægt er að svara spurningunum eins samviskusamlega og þú getur. Þú mátt biðja Andreu Ösp um aðstoð við að skilja spurningarnar ef þær eru flóknar.

1. Kyn?
   Strákur: ☐ Stelpa: ☐

2. Hvaða ár ertu fædd/ur: _____

3. Hvað hefur þú æft handbolta í mörg ár? _____

4. Veistu hvað sjálfstraust er?
   Já: ☐ Nei: ☐

---

5. Í handbolta er ég með:
   Mikið sjálfstraust: ☐ Meðal sjálfstraust: ☐ Lítið sjálfstraust: ☐

---

6. Getur þú stjórnað sjálfstraustinu þínu?
   Já: ☐ Nei: ☐ Veit ekki: ☐

---

7. Getur þú haft áhrif á sjálfstraust annarra?
   Já: ☐ Nei: ☐ Veit ekki: ☐

---

8. Sjálfstraust mitt er eiginlega alltaf eins, það breytist ekki mikið:
   Sammála: ☐ Ósammála: ☐ Veit ekki: ☐

---

9. Stundum er sjálfstraust mitt mikið og stundum lítið: - ?
   Sammála: ☐ Ósammála: ☐ Veit ekki: ☐

---

10. Það hefur ekki áhrif á sjálfstraust mitt þegar aðrir segja eitthvað neikvætt um mig:
    Sammála: ☐ Ósammála: ☐ Veit ekki: ☐

---

11. Sjálfstraust mitt er fljótt að lagast eftir að þjálfarinn minn eða aðrir hafa sagt eitthvað neikvætt um mig:
    Sammála: ☐ Ósammála: ☐ Veit ekki: ☐

12. Mér tekst að laga sjálfstraust mitt fljótt eftir að mér hefur gengið illa í handbolta:
    Sammála: ☐ Ósammála: ☐ Veit ekki: ☐

13. Þó ég standi mig illa í handbolta hefur það ekki mikil áhrif á sjálfstraust mitt:
    Sammála: ☐ Ósammála: ☐ Veit ekki: ☐

14. Þegar illa gengur í handbolta þá minnkar sjálfstraust mitt: - ?
    Sammála: ☐ Ósammála ☐ Veit ekki: ☐

15. Hvernig gengur í handbolta hefur ekki áhrif á sjálfstraust mitt:
    Sammála: ☐ Ósammála: ☐ Veit ekki: ☐

16. Ef ég geri mistök í handbolta hefur það mikil áhrif á sjálfstraustið mitt: - ?
    Sammála: ☐ Ósammála: ☐ Veit ekki: ☐

17. Ef ég geri mistök í handbolta þá lagast sjálfstraustið mitt fljótt:
    Sammála: ☐ Ósammála: ☐ Veit ekki: ☐

18. Þjálfarinn minn hefur áhrif á hvernig sjálfstraust mitt er.
    Sammála: ☐ Ósammála: ☐ Veit ekki: ☐

19. Foreldrar mínir hafa áhrif á hvernig sjálfstraust mitt er.
    Sammála: ☐ Ósammála: ☐ Veit ekki: ☐

20. Liðsfélagar mínir hafa áhrif á hvernig sjálfstraust mitt er.
    Sammála: ☐ Ósammála: ☐ Veit ekki: ☐

21. Hvernig finnst þér á handboltaæfingu?

    Mjög skemmtilegt: ☐

    Skemmtilegt: ☐

    Hvorki skemmtilegt né leiðinlegt: ☐

    Leiðinlegt: ☐

    Mjög leiðinlegt: ☐

Takk kærlega fyrir að svara!

Appendix B

Hálf-opin viðtöl við þjálfara

Sæl/l, ég ætla að fá að taka smá viðtal við þig um hvernig er búið að ganga og hvað þér finnst um sjálfstraust prógramið. Er þér sama þótt ég taki þetta upp á síman minn svo ég geti pikkað inn svörin eftir á?

Þar sem þetta er pilot rannsókn er mikilvægt að fá að heyra hvað betur má fara eða hvað var vel gert og það skiptir engu máli hvert þið eruð komin í prógraminu því rannsóknin snýst aðeins um hvernig þetta prógram gengur og hvað má bæta.

1. Hvað hefur þú verið við þjálfun lengi?
2. Ertu að gera eitthvað annað með? Skóli/vinnna?
3. Hvaða flokk ertu að þjálfa?
4. Hvert ertu kominn í prógraminu?
5. Hvernig finnst þér þetta búið að ganga?
6. Hvernig finnst þér handbókin vera?
7. Er eitthvað sem hefur tafið eða hindrað (staðið í vegi fyrir) að koma prógramminu eða einhverjum hlutum þess áfram?
8. Geturðu nefnt eitthvað sem þér þótti gott eða slæmt við handbókina?
9. Hvað finnst þér um framkvæmdina, er passlegt, of mikið eða of lítið að framkvæma svona innlögn 2x í viku?
10. Hvað finnst þér um þann undirbúning (þjálfun) sem þú fékkst áður en þú byrjaðir á prógramminu? (Var skýrt eða óskýrt hvernig þú ættir að framkvæma þetta áður en þú byrjaðir?

11. Hvað finnst þér um stjórn og utanumhald á verkefninu? (Finnst þér eins og það hafi þurft að vera einn millilíða aðili sem sá um aðhald á verkefninu?
12. Myndiru mæla með prógraminu fyrir aðra?
13. Ef þú þjálfar annan flokk, myndiru vilja gera þetta aftur?
14. Er eitthvað sem þú myndir vilja breyta?
15. Helduru að þetta yrði betra/aðgengilegra ef prógramið væri í appi?
16. Ertu með einhverjar sögur af iðkenndum, annaðhvort jákvæðar eða neikvæðar um hvernig þetta prógram hafi haft áhrif?
17. Er eitthvað annað sem þú vilt taka fram í sambandi við þetta verkefni?

Takk fyrir að svara.

Appendix C

TROSCI

Row	Qeustions	Strongly Strongly Disagree Disagree			Neutral					
1	A bad result in competition has a very negative effect on my self-confidence	1	2	3	4	5	6	7	8	9
2	My self-confidence goes up and down a lot	1	2	3	4	5	6	7	8	9
3	Negative feedback from others does not effect my level of self-confidence	1	2	3	4	5	6	7	8	9
4	Mistakes have very little effect on my self-confidence	1	2	3	4	5	6	7	8	9
5	My self-confidence recovers very quickly after negative feedback from my coach or significant others	1	2	3	4	5	6	7	8	9
6	I recovers me self-confidence quickly after a bad result in competition	1	2	3	4	5	6	7	8	9
7	If I perform poorly, my confidence is not badly effected	1	2	3	4	5	6	7	8	9
8	My self-confidence is stable; it does not very much at all	1	2	3	4	5	6	7	8	9
9	My self-confidence is not greatly effected by the outcome of competition	1	2	3	4	5	6	7	8	9
10	If I make a mistake it has quite a large detrimental effect on my self-confidence	1	2	3	4	5	6	7	8	9
11	My self-confidence remains stable regardless of fluctuationin fitness level	1	2	3	4	5	6	7	8	9
12	I recover my self-confidence very quickly if I make a mistake	1	2	3	4	5	6	7	8	9