FINNISH ATHLETES' EXPECTATIONS ABOUT PHYSIOTHERAPY IN SPORT INJURY REHABILITATION

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ABSTRACT

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As the injured athlete's primary and most frequent contact within the sport injury rehabilitation process, the physiotherapist is in a unique position to influence the athlete's psychological rehabilitation alongside the physical recovery (Barefield & McCallister, 1997). The important question of whether or not athletes expect physiotherapists to address their psychological issues, however, has not yet been investigated in detail. Moreover, scales that measure athletes' expectations of physiotherapy are also scarce and available only in the English language. Therefore, the purpose of this study was two-fold: 1) to adapt the Expectation About Athletic Training (EAAT) questionnaire into Finnish and 2) to examine Finnish athletes' expectations of physiotherapy. The EAAT questionnaire that measures athletes' expectations about sport injury rehabilitation and physiotherapy was translated into Finnish and administrated to a sample of 247 Finnish athletes. The psychometrics of the instrument was examined using principal component analysis and expectations of different groups of Finnish athletes were examined using independent sample t-test and one-way ANOVA.

Results found that the previously hypothesized second order 3-factor model of the EAAT questionnaire was not confirmed in the Finnish sample. Although some items formed similar constructs as with the original 17 scales, and thus were used to form 11 new factors for the purpose of this study, confirmatory factor analysis is suggested for future research. Finnish athletes reported highest expectations for direct informational support and expertise from the physiotherapist. Athletes also had moderate expectations for the physiotherapist to have facilitative characteristics, such as genuineness. Furthermore, athletes had moderate expectations to be personally responsible and committed in physiotherapy. Gender, injury type, competition level, and previous experience in mental skills training were identified as potential moderators of athletes' expectations of physiotherapy. It is noteworthy that athletes demonstrated neutral to high expectations for all 11 dimensions of client expectations. These research findings support and magnify the significance of physiotherapists in rehabilitation. Physiotherapists should be aware of athletes' expectations and prepare to meet their various physical and psychological needs. Psychological education can potentially assist physiotherapists in meeting athletes' needs.

Keywords: injury rehabilitation, physiotherapy, athletic training, athletes' expectations, social support, the integrated model of psychological response to sport injury and rehabilitation, cognitive appraisal models

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1 INTRODUCTION

Previous research suggests that sport participation is beneficial for one's health such as reductions in all-cause mortality risks (Blair, Kohl, Barlow, Paffenbarger, Gibbons, & Macera, 1995). Nonetheless, not all sport outcomes are always positive. Sport injuries can be a detrimental outcome of sports. Sport injuries can have negative effects on the athlete's profession, slowing down or possibly ending the career. Nevertheless, despite the obvious drawbacks that follow an injury, seldom are athletes actually free of injuries. Professional athletes are at the risk of injury at all times, in trainings, practices, and competitions. According to the U.S.A. Bureau of Labor Statistics, professional athletes and sports competitors have one of the highest rates of nonfatal, on-the-job injuries. The U.S.A. Bureau of Labor Statistics also reported that, in 2007, athletes and sports competitors suffered 2,049 injuries per every 10,000 workers. While overall workplace fatalities declined over the period of 1992 to 2002, those among athletes increased (Pegula, 2004). In 2010, the National Center for Catastrophic Sport Injury Research reported that roughly one out of every 100,000th American high school athlete received a certain form of catastrophic injury (Mueller & Cantu, 2010). For collegiate athletes, the injury rate for direct and indirect catastrophic sport injuries were 3.86 per 100,000 participants (Mueller & Cantu, 2010). In Europe, an estimate of 75% of Sweden's elite male and female football players suffered from an injury at one point during one season (Engström, Johansson, & Törnkvist, 1991, as cited in Johnson, 2006, p. 2). Epidemiological studies from Finland and the UK also have reported that the risk of injury for elite-level football players is between 65% (Lüthje, et al., 1996, as cited in Johnson, 2007, p. 2) and 91% (Lewin, 1989, as cited in Johnson, 2007, p. 2) during one season. In Finland, a total of 54,186 acute sport injuries occurred during a five-year period from 1987 to 1991 among soccer, ice hockey, volleyball, basketball, judo, or karate athletes (Kujala, Talmela, Antti-Polka, Orava, Tuominen, & Myllynen, 1995). In the case of competitive top-ranking Finnish athletes, during a 12 month period, 92% of male (n=62) and 79% of female (n=66) soccer players experienced at least one injury. 82% of male (n=83) and 68% of female (n=67) Finnish long-distance runners also reported receiving an injury during the past year (Ristolainen, Heinonen, Waller, Kujala, & Kettunen, 2009). From these data, one can assume that getting hurt is an inevitable element of sport participation. Therefore, "it is paramount to assist the athlete

in returning to competition in the healthiest playing condition and in the fastest time possible" (Bauman, 2005, p. 432).

The effect of a sport injury extends to multiple dimensions of the injured athlete's health, such as physical, social, cognitive, emotional, spiritual, philosophical, and economic dimensions (Wiese-Bjornstal, 2009). For example, sport injuries can be a cost burden for the health care system; they can result, not only in physical consequences, but fundamental (psychological) changes as well (Horvath, Birrer, Meyer, Moesch, & Seiler, 2007). Often times, "the immediate consequence of a sporting injury is a period of inactivity, which gives rise to numerous adverse situations for both the sportsman or -woman him- or herself and his or her environment" (Buceta, Bueno, Ramírez, & Diaz, 2000, as cited in de Heredia et al., 2004, p. 16). Health-related consequences are not limited to the injured athlete alone, but may influence the athlete's surrounding network of family, friends, teammates, coaching staff and even the larger community (Wiese-Bjornstal, 2009). Because athletes can experience various psychological consequences from sport injuries (Podlog & Eklund, 2004), numerous studies have investigated the use of sport psychology techniques within sport injury prevention and rehabilitation (e.g., Cupal & Brewer, 2001; Johnson, 2007). The studies yielded positive results, such as a stronger recovery or moods improvements.

Unfortunately, athletes do not always have easy access to sport psychology consultants. Physiotherapists are usually the injured athlete's primary and most frequent contact within the health care network; thus, the strong rapport built within the relationship can have extensive effects (Barefield & McCallister, 1997; Brewer, 2010b). Researchers have recognized the influence of sport medicine professionals within injury rehabilitation and have asserted that they are in a unique position to substantially influence the athlete's psychological rehabilitation alongside the physical recovery (Arvinen-Barrow et al., 2007; Barefield & McCallister, 1997; Brewer, 2010b; Ray, Terrell, & Hough, 1999). Physiotherapists have also stated that they recognize the psychological elements in physiotherapy and acknowledge the importance and need for psychological rehabilitation (Arvinen-Barrow et al., 2007). In spite of the benefits that could result from integrating sport psychology techniques within rehabilitation programs (Clement & Shannon, 2009), however, physiotherapists have reported feeling

inadequate to fully incorporate these techniques (Arvinen-Barrow, Penny, Hemmings, & Corr, 2010; Gordon, Milios, & Grove, 1991).

Regardless of what physiotherapists and researchers may believe about the effectiveness of sport psychology in injury rehabilitation, it is ultimately the athletes who receive these psychological interventions. As psychological interventions can be met with much skepticism, it is crucial to understand how potential recipients perceive such interventions (Brewer, Jeffers, Petitpas, & Van Raalte, 1994). Psychological skills are more likely to be successful if participants believe in the techniques and have the intent to apply them for their physical and psychological well-being (Ievleva & Orlick, 1991). Therefore, researchers and medical professionals would be overlooking vital information if they were to disregard the client-athletes' opinions (Fisher & Hoisington, 1993). The field of behavior therapy extensively acknowledges the significance of investigating clients' perception and treatment acceptability of psychological interventions (Brewer et al., 1994). Treatment acceptability is believed to be associated with various factors, for example, client behavior in treatment such as adherence, client satisfaction in treatment, and treatment outcomes (Cross Calvert & Johnston, 1990). Findings from similar helping professions such as counseling show that negative outcomes such as conflict or termination may occur if clients' and counselor's expectations are not aligned (Martin et al., 2001). Surprisingly little research exists on the athletes' expectations about physiotherapy (Clement, Hamson-Utley, Arvinen-Barrow, Kamphoff, Zakrajsek, & Martin, 2011; Washington-Lofgren,Westerman, Sullivan, & Nashman, 2004). The question of whether or not athletes expect physiotherapists to address their psychological issues has yet to be investigated in detail. Not only is the topic under-researched, but also only one scale exists that measures athletes' expectations of physiotherapy. The Expectations About Athletic Training (EAAT) questionnaire developed by Clement et al. (2011) is a modified version of the Expectations About Sport Psychology Consulting (EASPC) questionnaire (Martin et al., 2001). The questionnaire measures four main dimensions of client expectations: personal commitment, facilitative conditions, physiotherapy expertise, and realism. Both the EASPC and EAAT questionnaire have confirmed the hypothesized three-factor model (excluding realism due to the need for contextual interpretation) and found positive results when used with American athletes.

Nonetheless, the EAAT questionnaire has only been used in one study and needs further validation.

Therefore, this study seeks to adapt the EAAT instrument from English to Finnish. Adapting the EAAT questionnaire into another language can help improve the psychometrics of the scale, consequently allowing researchers to conduct large-scale quantitative studies on the topic. Additionally, the study aims to describe Finnish athletes' expectations of physiotherapy in sport injury rehabilitation. By doing so, the findings of this study have the potential to assist researchers and practitioners to gain a better understanding of the process of sport injury rehabilitation and improve physiotherapy experiences for athletes.

2 CONCEPTUAL FRAMEWORK OF PSYCHOLOGICAL REHABILITATION

Various conceptual models have been developed to understand the intricacy of psychological responses to sport injuries. Nonetheless, according to Brewer's (1994) review of stage-based versus process-based models, cognitive appraisal models appear to have the most potential for explaining the process of sport injuries. This is because, unlike stage models where all athletes are proposed to follow sequential stages, cognitive appraisal models allow for explanations of individual and contextual differences. Cognitive appraisal models view the athlete's cognitive appraisals of the sport injury as a determining factor of how the athlete will respond to the situation. In other words, how the injury is perceived is more important in understanding the emotional and behavioral reactions than the actual injury itself (Brewer, 1994). Among the several cognitive appraisal models that have been proposed, Wiese-Bjornstal, Smith, Shaffer, & Morrey's (1998) integrated model of psychological response to sport injury and rehabilitation is possibly the most advanced and elaborate (Brewer, 2001). In 1998, Wiese-Bjornstal et al. proposed a comprehensive conceptual model by integrating the previously proposed stress and injury model and cognitive appraisal models The integrated model of psychological response to sport injury and rehabilitation acknowledges the complexity of an athlete's response to injury and rehabilitation, as well as its variable and dynamically changing nature overtime. Given the complexity of the multidimensional nature of the physiotherapy process (e.g., expectations need to be aligned, physiotherapists needing to attend to both physical and psychological needs of the athlete), using Wiese-Bjornstal et al.'s framework as a theoretical foundation seems fitting.

2.1 Integrated Model of Psychological Response to Sport Injury and Rehabilitation

Wiese-Bjornstal et al.'s (1998) integrated model of psychological response to sport injury and rehabilitation proposes that "pre-injury (Andersen & Williams, 1988) and postinjury (Wiese-Bjornstal et al., 1995) factors influence psychological response" (p. 48). Pre-injury factors (e.g., personality, coping resources) are based on Williams and Andersen's (1988) stress and injury model. The stress and injury model is identified as one of the main conceptual models that explain why sport injuries occur. The model for post injury factors is rooted in the stress and coping literature (Brewer, 2001). Sport injuries are considered a stressor and the responses to the stressor are analyzed in the

context of the stress process (Brewer, 2001). In other words, athletes appraise various factors following an injury such as the perceived cause of injury, availability of social support, and coping ability (Wiese-Bjornstal et al., 1998), and how the athlete cognitively appraises the stressor is the central determinant of the athlete's response to the injury. Once the injury has occurred, psychological consequences of the athlete include cognitive, emotional and behavioral responses (Wiese-Bjornstal, Smith, & LaMott, 1995). An athlete's cognitive appraisal of a sport injury influences the athlete's emotional response, which in turn affects the following behavior. Although this is suggested as a primary direction of response, the responses are dynamic and influences in other directions are also plausible (Wiese-Bjornstal et al., 1998). For example, "in earlier versions of the model (Wiese-Bjornstal & Smith, 1993; Wiese-Bjornstal et al., 1995), the hypothesized effects of cognitions and emotions on rehabilitation outcomes are mediated through behaviors such as adherence to rehabilitation or use of social support" (Brewer, 2010a, p. 41). These psychological factors are suggested to influence the rehabilitation outcomes, which include both the physical and psychological recovery. The psychological responses of the athlete are continuously influenced by personal (e.g., injury severity, gender) and situational (e.g., competition level, rehabilitation environment, sports ethic) factors. This consideration of personal, situational, pre-injury, and post injury factors allow for an explanation for individual differences in athletes' responses to injuries. The integrated model of psychological response to sport injury and rehabilitation is presented in figure 1.

In their article, Weise-Bjornstal et al. argue that for a full comprehension of cognitive appraisals and emotional responses associated with sport injury it is essential to also consider the situational factors, such as the sociological culture of sport that encourages ignoring injury in pursuit of victory and success. These situational factors such as the ethics of sports or availability of social support in rehabilitation can act as a moderator of how athletes respond to sport injuries and the rehabilitation process. Although the integrated model incorporates the social climate of sport as a factor in the injury process for athletes, yet, there is limited empirical evidence that explains the relationship and process of how situational factors (e.g., sport ethics, sports medicine team, social support) influence athletes' psychological consequences. For example, traditionally, situational factors such as the physiotherapist or athletic trainer are believed to

influence the physical recovery and nothing more. Athletes attend physiotherapy sessions for the purpose of receiving physical treatment. Nevertheless, considering the growing research evidence suggesting that physiotherapists influence clients' psychological responses as well (Bricker Bone & Fry, 2006; Brewer, 2010b; Washington-Lofgren et al., 2004), it would be worthy to examine how athletes perceive situational factors such as physiotherapists and the rehabilitation environment to influence their responses to sport injury and rehabilitation. Understanding athletes' perceptions of physiotherapists could provide insight into the effects of situational factors on athletes' psychological response to sport injury and rehabilitation.

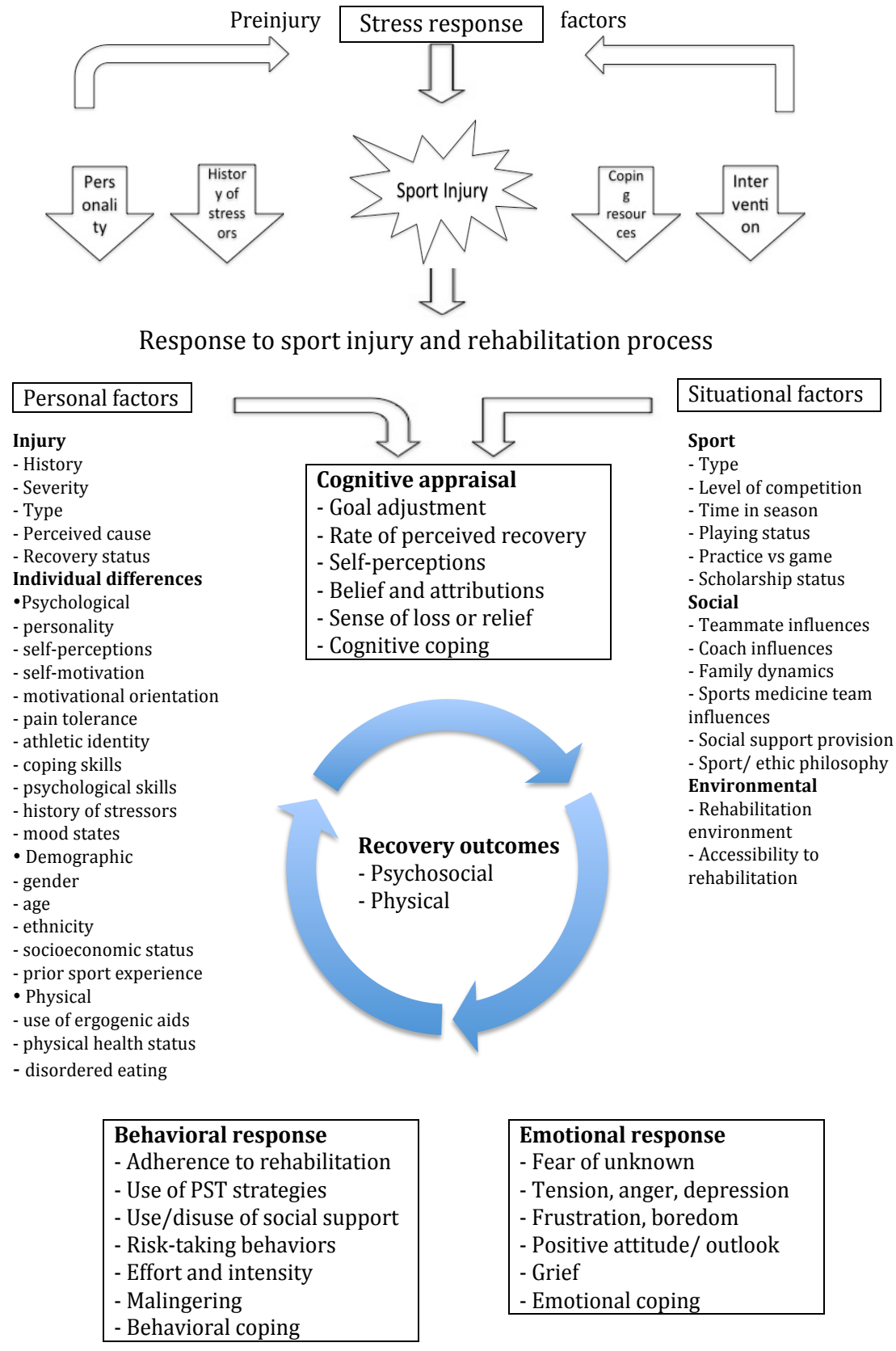


Figure 1. Integrated model of psychological response to sport injury and rehabilitation (Wiese-Bjornstal et al., 1998)

3 PHYSIOTHERAPY AND PSYCHOLOGICAL REHABILITATION

A large body of literature exists on the topic of sport injury rehabilitation. Whereas the traditional approach to rehabilitation has focused more on physical improvement, the importance of psychological factors in sport injury rehabilitation has grown over the past four decades (Brewer, 2010a). Research has mainly focused on two areas: the antecedents of and the psychological responses to sport injuries and rehabilitation. Both areas of research ultimately aim to generate knowledge applicable to daily life, as a means to reduce injury risks and optimize the course of rehabilitation (Horvath et al., 2007). The studies reveal that injury rehabilitation is an intricate and dynamic process (Cupal, 1998; Fisher & Hoisington, 1993; Podlog & Eklund, 2005; Wiese-Bjornstal et al., 1998). In a review of injury rehabilitation intervention studies, Cupal (1998) concluded that preventive and rehabilitative psychological interventions produced positive results for an athlete such as a stronger recovery, mood enhancement, optimized effort in performance, and a decrease in injuries, pain, stress, and anxiety. Thus proving the benefits of psychological prevention and rehabilitation for injured athletes. Additionally, research on social support in injury rehabilitation demonstrates that "social support helps injured athletes diminish their uncertainty by providing them with a sense of control over their situation" (Albrecht & Adelman, 1987, as cited in Robbins & Rosenfeld, 2001, p. 280). Although this need for supportive figures in stressful times such as during injury rehabilitation has frequently been addressed, "who takes on that role and who would be more successful in that role is still an important and unanswered question" (Robbins & Rosenfeld, 2001, p. 280).

While professionals such as a sport psychologist can help ease the psychological recovery of athletes, a national study of UK physiotherapists revealed that a mere 24.1% of 361 physiotherapists have access to a licensed sport psychologist (Arvinen-Barrow et al., 2007). Thus, researchers have acknowledged the value of physiotherapists being able to deliver sport psychology services when a sport psychology consultant is unavailable (Clement & Shannon, 2009). Lynch (1988, as cited in Clement & Shannon, 2009) stated that sport medicine professionals "should no longer focus solely on the use of physical techniques to promote injured athletes' return to the field of play" (p. 505). On the contrary, researchers have proposed that physiotherapists "should use a much more holistic approach and incorporate

psychological components within their rehabilitation programs" (Scherzer, 2004, as cited in Clement & Shannon, 2009, p. 505). Previous studies have suggested that in attending to the injured athlete's needs, the interaction between the injured athlete and the physiotherapist is frequently identified as the key predictor of patient adherence and positive treatment outcomes (Barefield & McCallister, 1997; Fisher & Hoisington, 1993). Furthermore, two recent studies of UK physiotherapists' views on the psychological content of their practice revealed that physiotherapists also recognize the psychological element of injuries (Arvinen-Barrow et al., 2007; Arvinen-Barrow et al., 2010). Physiotherapists felt that 83% of injured athletes were psychologically affected by their injuries. Additionally, even though the physiotherapists stated that they already employ psychological techniques in their work, they expressed a further need for additional training in psychological principles and interventions (Arvinen-Barrow et al., 2007; Arvinen-Barrow et al., 2010).

As previous literature demonstrates, both sport psychologists and physiotherapists have acknowledged the significance of the physiotherapists' role in psychological rehabilitation. Recently, researchers have proceeded in offering sport psychology education interventions to physiotherapists and reported a significant increase in physiotherapists' engagement in sport psychology behaviors (e.g., Clement & Shannon, 2009; Stiller-Ostrowski, Gould, & Covassin, 2009). Nevertheless, ultimately the injured athletes are the potential recipients of the psychological interventions (Brewer et al., 1994). Research on social support in injury rehabilitation stresses that social support will only be beneficial when what the provider is able and willing to offer matches with what the recipient needs (Robbins & Rosenfeld, 2001). Furthermore, "the support must come from the appropriate provider, and most importantly, the injured athlete must perceive that he or she is actually receiving the support" (Sarason, Sarason, & Pierce, 1990, as cited in Robbins & Rosenfeld, 2001, p. 288). Hence, one would be negating a great source of information if one were to ignore the service recipient's opinions (Fisher & Hoisington, 1993). Nonetheless, whereas studies exploring physiotherapists' perspectives on psychological rehabilitation and their respective roles in it have been recently abundant, research exploring athletes' perspectives on physiotherapists and their role in psychological rehabilitation has been notably limited. The following section presents existing research that has examined the role of physiotherapy in the rehabilitation of sport injuries from the athletes' perspectives. Despite subtle differences

in terminology and job descriptions, as the Finnish job title for athletic trainers or sport physiotherapists is physiotherapists, for the purpose of this study, the term physiotherapy is used to address the work of similar professions such as athletic trainers, physical therapists, or sport physiotherapists. Nevertheless, despite that the Expectations About Athletic Training (EAAT) questionnaire was translated as the Expectations About Sport Injury Rehabilitation Physiotherapy (EASIRP) questionnaire and the term athletic trainer was translated as physiotherapist to fit the Finnish context, the questionnaire continues to be referred as the EAAT questionnaire to be consistent with the title used by Clement et al. (2011).

3.1 Athlete Perspectives on Physiotherapy

Fisher and Hoisington (1993) were among the first to study athletes' perspectives on physiotherapists in injury rehabilitation. Due to the dynamic interaction between the physiotherapists and athletes, the authors proposed a partnership approach. As athletes are equal contributing partners in the physiotherapist-athlete relationship, the authors asserted that assessing athletes' perspectives would enhance our understanding of the role of physiotherapists in the rehabilitation process. The purpose of the study was to understand athletes' attitudes and judgments towards rehabilitation adherence. The athletes' views were assessed with the Athletic Injury Rehabilitation Adherence Questionnaire, which includes physiotherapists as a contributing factor to adherence. Additionally, the athletes' attitude and judgments of adherence were compared to that of the physiotherapists', which was measured in a separate study (see Fisher, Mullins, & Frye, 1993). This comparison was an important first step in understanding whether athletes and physiotherapists had congruent views of rehabilitation and whether physiotherapists were perceived as influencing athletes' adherence. The questionnaire was delivered to 108 athletes who were previously injured and rehabilitated for a minimum of 3 months. Results demonstrated that athletes and physiotherapists were in agreement as both parties acknowledged physiotherapists to be a significant contribution to improving athletes' adherence to rehabilitation. This points out that both athletes and physiotherapists appraise physiotherapists to have an impact on athletes' behavioral response to sport injury and rehabilitation. Good rapport and communication between the athlete and physiotherapist were found essential for treatment adherence. Moreover, a good physiotherapist-client relationship was required for physiotherapists to have an influence on athletes' adherence to rehabilitation. Additionally, athletes

called for a realistic and positive approach from the physiotherapist. Athletes and physiotherapists were both aware of the importance of accurate pain appraisal and, consequently, recognized athletes' need for assistance with interpretations of pain and estimations of effort required for rehabilitation. Furthermore, knowledge of the rehabilitation regimen was more important for athletes than details of the injury. This suggests that simply providing informational support is insufficient in influencing adherence. Rather, using the information to help athletes clarify and adjust their expectations seemed necessary for improving athlete adherence to rehabilitation. The authors also proposed that physiotherapists are in a unique position to foster the coach's involvement and support in rehabilitation. Although the study addressed the relationship between physiotherapists and athletes' adherence to rehabilitation, limitations of the study include a small sample and a low survey return rate.

Following this initial study, Barefield and McCallister (1997) examined athletes' expectations of physiotherapists as a source of social support in sport injury rehabilitation. The authors hypothesized that athlete expectations or satisfaction of social support would differ from certified physiotherapists and student physiotherapists, due to the difference in level of physiotherapy expertise and experience. Using the Social Support Survey (SSS), 85 student-athletes rated, (a) which types of social support they expected, (b) which types of social support they actually received, and (c) how satisfied they were with the support provided. The study found no significant differences in the athletes' expectations, perceived reception, and satisfaction of social support between certified physiotherapists and student physiotherapists. Results showed that the type of support physiotherapists provided and the type of social support athletes expected were aligned. Among the eight types of social support, athletes most frequently expected and received listening support and task appreciation. Athletes expected physiotherapists to be emotionally supportive, while challenging them in rehabilitation. Moreover, athletes expected others to understand their struggle (reality confirmation). On the contrary, athletes least expected emotional confrontation, tangible support, or personal assistance. These findings suggest that athletes expect, and subsequently receive, emotional support from physiotherapists such as listening support or empathetic understanding. Athletes reported to least expect and receive forms of behavioral assistance from the physiotherapist. An interesting finding was that the level of athletes' expectations across the different categories of social support varied

depending on how applicable that type of social support is to injury recovery, indicating that athletes' expectations reflect athletes' needs. This supports the present study's rationale of understanding athletes' expectations as a mean to better meet athletes' needs in injury rehabilitation. Nevertheless, the study's sample included only one university; hence, the results may be more applicable to the physiotherapists positioned in the university rather than the general physiotherapist population. Despite the limitation in sampling, the study is significant as it illustrates that athletes expect a certain form of social support from physiotherapists, regardless of their level of expertise. This finding highlights the significance of physiotherapists' role in supporting injured athletes; thus, the importance of educating and training physiotherapists of basic psychological concepts and skills.

Subsequently, Robbins and Rosenfield (2001) investigated athletes' perceptions of social support provided by various figures before and during rehabilitation to gain insight into the process of social support within injury rehabilitation. Understanding perceptions of the service recipient can help minimize the discrepancy between expectations and reality and increase treatment effectiveness. The perceptions of social support were assessed using a modified version of the Social Support Survey (SSS). 35 athletes with minor to severe injuries perceived physiotherapists to be a more valuable source of social support than either the head coach or assistant coach. Athletes reported that the physiotherapist's support such as listening support, task appreciation, task challenge, and emotional challenge support was more satisfying and influential to their well-being than the support from their coaches. Whether this is due to the fact that physiotherapists are currently their predominant source of support or whether athletes actually perceive the coaches' support as unnecessary, however, is uncertain. The types of social support athletes require from physiotherapists mostly remained consistent with findings from Barefield and McCallister (1997), except for emotional challenge support. Robbins and Rosenfeld further recommended that physiotherapists, who are already knowledgeable of the injury situation, could serve as a mediator between the athlete and coaching staff. Similar to suggestions from Fisher and Hoisington (1993), the authors suggested that physiotherapists are able to stimulate conversation about primary psychosocial influences of injuries with the coaching staff on behalf of the sport psychologist and athlete. Findings from this study emphasized the significance of sports medicine professionals, not only as a physical treatment provider, but also as an

emotional and psychological support. As athletes report perceiving physiotherapists as one of the most important sources of social support, it is critical that physiotherapists recognize and prepare to meet these expectations.

Bricker Bone and Fry (2006) conducted a study in order to examine whether athletes' perceptions of social support from their physiotherapists influenced their beliefs about the rehabilitation process. Strong social support from the physiotherapist may help the athlete adopt a more positive outlook on recovery, which might be apparent in their strong belief in the rehabilitation process. Nonetheless, the influence of physiotherapists' social support on the cognitive beliefs of athletes had not been previously examined. Athletes' perceived social support from physiotherapists was measured through the Social Support Survey (SSS). The SSS assessed athletes' perceptions of the availability, satisfaction, and importance of social support provided by physiotherapists. The Sports Injury Rehabilitation Beliefs Survey (SIRBS) measured athletes' beliefs about rehabilitation regarding susceptibility, treatment efficacy, self-efficacy, rehabilitation value, and injury severity. Although no support for the relationship was found from the total sample of 57 athletes, there was a positive connection between perceived social support from physiotherapists and athletes' beliefs about rehabilitation for the 28 severely injured athletes. Athletes with severe injuries had more positive beliefs of rehabilitation completion than those with moderate or mild injuries. This may be because the significance of the physiotherapists increases for severely injured athletes as rehabilitation is prolonged, whereas mildly injured athletes know they will recover soon no matter the support level from their physiotherapists. Injury severity further moderated the relationship between physiotherapist support and athletes' beliefs of rehabilitation; severely injured athletes required more emotional support, and had higher beliefs in treatment efficacy, self-efficacy, and confidence in rehabilitation. These results may be due to the fact that severely injured athletes took the study more seriously and were more aware of their rehabilitation process as they had more at stake than the mildly injured athletes. Providing challenging yet sport-specific tasks helped athletes feel they would recover from their injury and not get reinjured. Moreover, informational support enhanced athletes' self-efficacy in rehabilitation, while tangible support such as a cast or a visit to the physician increased athletes' belief in treatment efficacy. Results on tangible assistance support differed from Barefield and McCallister's (1997) findings, where athletes reported to least

expect physiotherapists to provide tangible support (e.g., offer money or goods) or personal assistance (e.g., to drive them somewhere). One limitation of the study is that the sample only consisted of athletes from one university. The results could be describing athletes' perceived social support of this particular university's physiotherapists rather than the support of physiotherapists at large. Furthermore, the SIRBS questionnaire was only validated by one other study and requires further validation. Nevertheless, results indicate that physiotherapists' social support influences athletes' cognitive responses to injury and that injury severity moderates the relationship.

In 2004, Washington-Lofgren et al. studied the role of physiotherapists in the psychological rehabilitation of injured athletes using mixed research methods. The purpose of this study was twofold, (a) to assess injured athletes' expectations of physiotherapists and (b) to determine physiotherapists' current perspectives and approaches to the psychological recovery of athletes. Furthermore, the aim was to identify differences in the expectations between male and female athletes, acutely and chronically injured athletes, and starters and bench players. Through this study, researchers hoped to learn whether physiotherapists were aware of and, consequently, fulfilled injured athletes' needs and expectations. For the first study purpose, 52 previously injured collegiate soccer players completed the Athlete Rehabilitation Perception Survey (ARPS), which measured athletes' attitudes towards injuries and their opinions of physiotherapists. Additionally, two focus groups consisting of five and three athletes provided further information on athletes' perspectives of physiotherapists in injury rehabilitation. No significant distinctions in the responses of different genders, injury types, or playing status were found. Athletes reported expecting physiotherapists to provide informational support and to help shape their expectations of the injury rehabilitation process. Previous research notes that clarifying expectations help athletes reduce their anxiety and fear of the unknown (Rotella & Heyman, 1986; Wiess & Troxel, 1986, as cited in Washington-Lofgren et al., 2004, pp. 100-101). Moreover, participants expressed high expectations and beliefs of their physiotherapists, believing they were capable of recognizing and fulfilling athlete needs such as motivational needs or the need to be understood of "what they are going through" (p. 100). Nevertheless, athletes' coping scores were found to be lower than their expectation scores. This further emphasizes that physiotherapists must become aware of athletes' high

expectations and find additional means that allow them to meet those expectations. One notable difference in the responses between the survey group and the focus group was their perceptions of physiotherapists assisting with emotional coping. Whereas the survey group reported that they "almost never" perceived their physiotherapist to be qualified to help them cope with negative emotions, the focus group disagreed saying, "they should because…in a way it's part of the rehabilitation process" (p. 99). While some athletes from the focus group reported never having considered approaching their physiotherapists for assistance in coping, many athletes also expressed reluctance to see sport psychologists or "someone completely new" (p. 100). This provides support for previous research suggestions that sport injury professionals who have well-established relationships with athletes are in an ideal position to provide assistance in athletes' psychological recovery. A questionnaire was created and distributed to 105 physiotherapists to address the second study aim of assessing current psychological strategies physiotherapists employ in their practice. The results demonstrated that physiotherapists recognized the importance of psychological rehabilitation, but felt limited in their knowledge or resources. Moreover, they commonly underused the psychological techniques. The underuse may be due to the lack of formal psychological education and unfamiliarity with sport psychology techniques. In other words, the reason physiotherapists most employed techniques of goal setting and verbal motivation may be due to personal experience and opinion, rather than formal training or adequate background knowledge. In addition to acknowledging the importance of psychological rehabilitation, physiotherapists also explained that there was a wide range of individual differences in the psychological needs of athletes. This finding supports the need for physiotherapists' psychological education as the knowledge of numerous techniques and strategies will allow for physiotherapists to individualize treatment. Although the study provided insight into the role of physiotherapists in psychological rehabilitation, the study had its limitations. First and foremost, there were no reports of the reliability or validity of the ARPS and a limited explanation of what the expectancy scores or coping scores actually represent. Moreover, the sample for the survey group was small and homogeneous, making it difficult to general the results to a greater population. Finally, research procedures were inconsistent, which could have allowed unknown extraneous biases to influence the results.

Following Washington-Lofgren et al.'s mixed methods study, Arvinen-Barrow, Penny, Hemmings, and Corr (under review) adopted a qualitative approach and conducted an in-depth interview of ten professional football and rugby players to assess athletes' views on psychological aspects in injury rehabilitation and physiotherapy. Through an interpretive phenomenological approach, Arvinen-Barrow et al. found that all athletes acknowledged physiotherapists to be a vital source of social support, especially for informational, motivational, and emotional support. The support, however, was expected to take a subtle and informal form. Other supportive figures such as girlfriends or family were also perceived as important sources of emotional, motivational, and tangible support. Nevertheless, athletes' opinions varied on receiving social support from teammates or other injured players. In line with previous research, the type of social support that was required by the athlete seemed to be determined by the athlete's injury type, injury severity, and other personal and situational factors (Arvinen-Barrow et al., 2010; Mitchell, Neil, Wadey, & Hanton, 2007; Taylor & Taylor, 1997, as cited in Arvinen-Barrow et al., under review). This suggests the need for physiotherapists to be able to recognize the various forms of social support and provide the appropriate type when needed. Additionally, all athletes expected physiotherapy expertise regarding diagnosis and treatment of physical aspects that ensured a fast recovery to pre injury fitness. Despite having such clear expectations about physiotherapy, athletes rarely voiced their expectations to the physiotherapists assuming the physiotherapists already knew what they expected. Instead of communicating their expectations, the topic of communication was mainly focused on pain. A new finding from this study was that athletes were very trusting of their physiotherapists. This trusting patient-therapist relationship allowed physiotherapists "to allocate greater levels of ownership of the rehabilitation process to the athletes," (p. 26) which is critical for a successful and efficient rehabilitation. Furthermore, self-doubt and frustration were two responses of the participants, which previously had not been discussed in the context of physiotherapy. "These findings are in line with existing models, as the Integrated Model (Wiese-Bjornstal et al., 1998) acknowledges self-perception as an outcome of athletes' cognitive appraisal of the injury" (p. 23). Although the majority of athletes recognized the usefulness for psychological support in rehabilitation, they did not see themselves needing such support. These findings may be due to sampling biases as the participants were all from a highly masculine sport where the admittance of needing support may not be encouraged. Nonetheless, due to the high levels of trust the athletes placed on

their physiotherapists, participants appeared to be optimistic about trying new techniques if their physiotherapists believed that it would be beneficial for their recovery.

Previous studies offer insight into athletes' expectations and perceptions of physiotherapists and their role in psychological recovery, but due to methodological limitations of unreliable measures, limited samples, and quantitative research methods, it is difficult to generalize current study results to larger populations. At this point in research, a large-scale study seems timely for more representative findings. Thus, the development of a valid and reliable scale is called for. Moreover, previous studies have solely focused on client expectations of the counselor's behavior and attitudes, while client expectancies regarding the process and outcome of physiotherapy, and clients' own attitudes and behaviors in rehabilitation have been largely ignored (Tinsley, Workman, & Kass, 1980). For a broader, comprehensive understanding of athletes' expectations of physiotherapy, it is important to include various dimensions of client expectations (Tinsley et al., 1980).

To fill this void in research, most recently, Clement et al. (under review) modified the Expectations about Sport Psychology Consulting (EASPC) questionnaire (Martin et al., 2001) and developed the Expectations about Athletic Training (EAAT) questionnaire, allowing for large-scale quantitative research on the topic. The EAAT questionnaire includes various expectancies individuals might have about services such as counseling or physiotherapy, including (a) personal commitment, (b) facilitative conditions, and (c) physiotherapist expertise (Martin et al., 2001; Tinsley, 1982, as cited in Clement et al., 2011, p. 8). Study aims were to (a) determine gender differences in athletes' expectations of physiotherapy services and (b) "assess whether an interaction exists between past athletic training experience, gender and expectations of athletes about injury rehabilitation" (p. 7). Out of the 759 questionnaires distributed, 679 American collegiate athletes completed the EAAT questionnaire. The priori hypothesized three-factor model was confirmed through confirmatory factory analysis, proving the usefulness of the EAAT questionnaire, in the context of physiotherapy in sport injury rehabilitation. Consistent with previous research findings from similar helping professions of counseling and sport psychology consulting, a gender difference was found in athletes' expectations of personal commitment and facilitative conditions.

Male athletes with no prior athletic training experience tended to have lower expectations of personal commitment and facilitative conditions than those with previous athletic training experience or female athletes. Female athletes with previous experience in physiotherapy had lower expectations of realism factors. Based on these findings, "it appears that the gender differences found in the current study are universal across helping professions" (p. 17). The authors suggested sport psychology as a valuable means to meet female athletes' expectations and debunk male athletes' expectations. For example, with additional sport psychology training, physiotherapists would be better prepared to communicate with male athletes and assist them to become more expressive and responsible in their rehabilitation process. Furthermore, the authors emphasized that, when providing psychological training for physiotherapists, the main focus of education should be practical training. In other words, providing opportunities for physiotherapists to practice applying psychology skills until they feel comfortable was suggested to be more important than theoretical information. This study was an important first step in developing a comprehensive questionnaire that allows researchers to gain a broader understanding of athletes' expectations of physiotherapy. Future research is required to replicate findings and further explore athletes' expectations in the context of physiotherapy in sport injury rehabilitation.

3.2 Physiotherapy in Finland, a cultural consideration

From previous literature, it is apparent that physiotherapists significantly influence an athlete's physical and psychological response to sport injury and rehabilitation. However, "the exchange of social resources does not occur in a vacuum" and an "important determinant of help-seeking intentions is the context of which social resources are to be exchanged" (Schonert-Reichl & Muller, 1996; Sullivan, Marshall, & Schonert-Reichl, 2002; as cited in Hoar & Flint, 2008, p. 159). Physiotherapists are situated within a context and a culture; thus, the culture can moderate what athletes expect from their physiotherapists and how they subsequently respond to them and rehabilitation. Published research up to date has predominantly been focused on North American athletes. Nevertheless, according to the country, conditions such as the physiotherapist's job description, educational background, accessibility, cost etc are likely to differ, possibly changing the culture and expectations regarding physiotherapy. It is noteworthy that even job titles for the work of a sport physiotherapist differ depending on the country. Although previous literature has assumed different

terminologies of athletic trainers (ATCs), physical therapists, physical therapy assistants and physiotherapists to be similar and has used them interchangeably, job descriptions might vary to a certain degree. This study examines Finnish athletes' expectations about physiotherapy in injury rehabilitation. Therefore, for a contextual interpretation of Finnish athletes' expectations about physiotherapy, it was important to get an understanding of the cultural context of sport physiotherapy in Finland. Thus, the current study attempted to gain some understanding of what the job title of physiotherapy entails in Finland and help researchers understand what Finnish athletes were responding to when they were asked to rate their expectations of "physiotherapists". In an attempt to provide this contextual background information and the definition of physiotherapy, an hour-long interview was conducted with a Finnish physiotherapist. Through this personal communication, the researcher aimed to understand what physiotherapy means in Finland and to identify notable differences from the U.S.A, where most of the previous studies took place. Understanding the cultural context of the physiotherapy profession could allow for a better understanding of the role of physiotherapists and their influences on athletes' psychological response to sport injury and rehabilitation. For example, whether the positive role and supportive influences of physiotherapists are a phenomenon occurring specifically in the U.S.A./ UK, or if it is a more universal is a question worthy of examination. Information on cultural differences in physiotherapy could help researchers understand why the role of the physiotherapist is similar/ different across studies. This type of information, however, was available only through personal communication, as literature on cultural differences in physiotherapy could not be found.

The interviewee was a Finnish physiotherapist who has been working as a physiotherapist for 16 years, 8 years in Finland and 8 years in the United States as a physical therapist. According to the interviewee, a physiotherapist in Finland is a professional who "evaluates problems and rehabilitates them and educates students, patients, people, and employees. Moreover, physiotherapists "design, develop and make instruments used for rehabilitation and health prevention (e.g., casts)." The main aim of physiotherapy was identified as "to teach, motivate and educate people to take care of themselves and get better by advising and demonstrating. But mainly to get people to understand that it is their responsibility to rehabilitate themselves." When asked what clients may expect from them, the physiotherapist responded that it differs according to

the client's knowledge, but generally clients expect help for their problems. They might not expect rehabilitation treatment or exercises, however, because they might not know that the rehabilitation responsibility is on them. She explained that, in her experience, it was common for patients to ask advice about various issues (e.g., health, children, work) other than their physical problems. As she often found it difficult to fulfill all the clients' needs, she explained, "we (physiotherapists) need to be able to advice about everything and refer to other specialists". She also expressed the importance of being able to read the signs of clinical issues such as depression or abusive relationships, and know how to react, understand the process of referral, how to talk about it, and what to do. Nevertheless, the physiotherapist explained that the process was not easy. No one officially taught physiotherapy students that the job is not only about physically treating a patient and the necessary listening skills or referring skills were mostly developed through experience, rather than from formal classes or training. Physiotherapy education in Finland usually included some basic courses in psychology, but "one develops these referral skills through experience and, sometimes, depends on each physiotherapist's personal characteristics" (e.g., some are more sensitive than others etc).

Moreover, similar to research findings from the studies from the U.S.A., the physiotherapist found that the client and physiotherapist develop "an intensive relationship where you really know the person." She attributed the strong client-physiotherapist relationship to the long physiotherapy meetings, which normally last for 30 minutes to an hour (compared to meetings with doctors, which last for 10minutes or less). Furthermore, due to the nature of the profession, physiotherapists not only focus on the problem but assess the whole life process in detail and figure out clients' general lifestyle (e.g., what are your hobbies, do you have pets, how do you brush your teach, how long do you sit, what kind of housework do you do how, what type of mattress do you use). Thus, the physiotherapist perceived the revelations of such personal details to contribute in creating an intimate relationship.

Nonetheless, although the job description and general perception of physiotherapists in Finland seemed similar to that of the United States, the interviewee also reported interesting differences as well, which seemed to support the rationale for describing Finnish athletes' expectations about physiotherapy in injury rehabilitation. One aspect

that differed in Finland from the U.S.A. was that, whereas Finns were treated in their own room with doors due to strict privacy laws, in the United States, treatment commonly took place in open areas. Although she expressed that the closed space sometimes limits the work efficiency, the closed and private areas might be an ideal condition for the physiotherapist to provide psychological rehabilitation if necessary, such as lead imagery or relaxation sessions. Another difference between Finland and the United States was the insurance coverage of physiotherapy services. In Finland, physiotherapy was privately covered, possibly influencing patients' attitudes in treatment. In the interviewee's experience, in the U.S.A., perhaps because insurance covers physiotherapy costs, American patients tended to lack responsibility and commitment and had more of a "you just fix me" attitude. Finns, on the other hand, paid for physiotherapy privately, which might have caused them to act more responsible for their recovery process and outcome. These speculations could be investigated through cross-cultural examinations of athletes' expectations to be personally committed in physiotherapy using the EAAT questionnaire and through follow up qualitative interviews asking athletes of their motivation in physiotherapy. Nevertheless, as the Finnish medical expenses can be quite costly, it would be ideal if physiotherapists had an accurate understanding of athletes' expectations to better meet athletes' needs. Finally, in the United States of America, a common system was that the physiotherapists first diagnose the patients and then refer them to a physical training assistant (=PTA) or athletic trainer, who manage and carry out the assigned rehabilitation exercises. PTAs, compared to physical therapists, have a shorter education and are trained by the physiotherapists of what to do and how to supervise treatment exercises. American physiotherapists managed the entire treatment process and supervised, while the PTAs managed the hands-on work. Nevertheless, Finnish physiotherapists do not have an assistant; thus, they may have a higher work burden and could easily feel overwhelmed if they were required to provide psychological rehabilitation too. Thus, understanding what exactly athletes expect from their services can offer Finnish physiotherapists role clarity and relieve them of the stress caused by uncertainty. Whether physiotherapists should receive additional training in psychology to provide psychological interventions or not can be answered by examining athletes' expectations of physiotherapy in sport injury rehabilitation.

4 LITERATURE REVIEW CONCLUSIONS

Current literature demonstrates the significance of physiotherapists in sport injury rehabilitation. Research results suggested that athletes' expectations reflected athletes' needs (Barefield & McCallister, 1997), supporting research rationale of understanding athletes' expectations to better meet athletes' needs in physiotherapy. Consistent with propositions from the integrated model, both physiotherapists and athletes explained that, in addition to physical assistance, physiotherapists influenced athletes' cognitive, emotional, and behavioral responses to injury and rehabilitation. Research on athletes' perspective of physiotherapy demonstrated that athletes expected and received various forms of social support from physiotherapists such as listening support, emotional support, motivational support, task appreciation, and task challenge. Additionally, physiotherapists were perceived to be trustworthy and knowledgeable. A strong athlete-physiotherapist relationship was necessary for treatment to be effective, suggesting the need for good characteristics and communication skills on the part of the physiotherapist. The most repetitive finding, however, was that athletes expected physiotherapists to provide informational support that help shape their expectations of their injury and rehabilitation process. Previous research explains that clarifying expectations is important because it helps athletes reduce uncertainties and anxieties of the unknown by increasing their sense of control (Washington-Lofgren et al., 2004).

Furthermore, physiotherapists were perceived as influencing athletes' cognitive beliefs of rehabilitation such as their appraisals of treatment efficacy, self-efficacy, and treatment satisfaction. Physiotherapists also affected athletes' emotional and behavioral responses by relieving athletes' emotional stress, enhancing their well-being, and increasing their adherence to rehabilitation. In line with propositions of the integrated model of psychological response to sport injury and rehabilitation (Wiese-Bjornstal et al., 1998), personal and situational factors such as gender, injury severity, and playing status were proposed to moderate athletes' perspectives of physiotherapy. Nevertheless, research on moderators has been scarce and studies have reported inconsistent findings. From reviewing current literature, it seems reasonable to presume that athletes perceive sports medicine professionals as a significant influence to their psychological response to injury and rehabilitation. Additionally, several studies suggested that physiotherapists

are in a convention position to facilitate coaches' involvement in rehabilitation, as they are familiar with both the athletes and the coaching staff.

Previous literature on athletes' cognitive appraisals of physiotherapists confirms the principles of the integrated model of psychological response the sport injury and rehabilitation process. Nevertheless, research findings suffer from methodological limitations of unreliable instruments and small, homogeneous samples. Moreover, previous studies have largely focused on client expectations about the physiotherapist's behavior and attitudes. Clement et al. (2011) are the only researchers that examined client expectancies of the client's behavior and attitudes in physiotherapy, or the process and outcome of physiotherapy. Although the EAAT questionnaire is a novel attempt to provide insight into many important dimensions of client expectations, however, the psychometrics of the scale needs improvement. Adapting the scale to another language could be one method to help improve the reliability and validity of the EAAT questionnaire. Moreover, with the exception of Arvinen-Barrow et al. (under review), all published studies on the subject matter have been conducted on a limited sample of collegiate athletes in the U.S.A. Thus, whether findings from previous research are applicable to different regions and cultures is unknown. Research on athletes from different cultures could enhance researchers' general understanding of athletes' expectations of physiotherapy in sport injury rehabilitation and contribute in improving physiotherapy services for injured athletes.

5 PURPOSE OF STUDY

The purpose of this study was two-fold: 1) to adapt the Expectation About Athletic Training (EAAT) questionnaire into Finnish and 2) to examine Finnish athletes' expectations of physiotherapy in sport injury rehabilitation. The specific objectives were, (a) to study the factorial validity of the EAAT questionnaire and (b) to examine personal and situational factors that are related with Finnish athletes' expectations of physiotherapy. These findings could help researchers identify potential moderators of athletes' expectations of physiotherapy. Research results can enhance our understanding of how physiotherapists influence athletes' psychological response to injury rehabilitation and their recovery outcome.

6 METHOD

6.1 Participants

Through heterogeneous sampling, 226 Finnish athletes (128 males and 98 females) and 26 students from the Faculty of Sport and Health Sciences of the University of Jyväskylä, Finland (16 males and 10 females) participated in the study. From the collected data, however, 5 participants were deemed unreliable due to inconsistencies in the answers and were excluded from the sample. Consequently, the final sample for data analysis was 221 Finnish athletes (123 males and 98 females) and 26 Finnish sports students (16 males and 10 females). The participants' ages ranged from 14 to 42 years (M=22.13, SD=5.52). The top five primary sports of the sample were soccer (20.2%; n = 51), ice hockey (11.7%; n = 29), martial arts (9.5%; n = 24), swimming (8.5%; n = 21), and athletics (5.6%; n = 14). The sample included athletes from different competitive levels; 48 athletes (19.4%) competed at a recreational level, 25 athletes (10.1%) at a regional or local level, 133 athletes (53.8%) at a national level, 12 athletes (4.9%) at an international level, and 18 athletes (7.3%) competed at a professional level. The years of involvement in their primary sport ranged from half a year to 30 years (M = 13.07, SD = 5.46) and training hours ranged from 3 to 27 hours (M = 11.43, SD = 5.06) per week. The participants reported an injury history of 0-77 injuries (M = 8.18, SD = 11.37); injuries reported as minor were (M = 4.99, SD = 8.03), moderate (M = 2.49, SD = 3.66), severe (M = 2.78, SD = 10.64), and catastrophic (M = 0.1, SD = 0.44). From the total sample of athletes, 154 athletes and 16 sport students (68.8%) had previous experience in physiotherapy and 41 athletes and 8 sport students (19.8%) had previous experience in incorporating mental skills training (MST) into their injury rehabilitation. Among those who had experience using mental skills training techniques in injury rehabilitation, 73% of them reported that MST facilitated their recovery. Informed consent was obtained from the athletes and students before participation.

6.2 Instrument

The questionnaire used in this study, Expectation About Athletic Training (EAAT), is a modified version of Martin et al.'s (2001) Expectations about Sport Psychology Consulting (EASPC) Questionnaire, which has also been adapted from Tinsley's (1982) original Expectations About Counseling - Brief (EAC-B) form to fit the context of

sports. The EAAT questionnaire comprises 66 items, which measure 18 scales that construct four main factors. The four main factors are: (a) personal commitment (motivation, openness, responsibility, attractiveness, concreteness, immediacy and outcome) that refers primarily to how clients expect themselves to act in the physiotherapy situation, (b) facilitative conditions (acceptance, confrontation, genuineness, nurturance, self-disclosure, tolerance and trustworthiness), which concern expectancies of conditions that are necessary and sufficient to stimulate psychotherapeutic personality change, (c) physiotherapy expertise (directiveness, empathy and expertise), which are expectancies of qualities that only an experienced, expert physiotherapist would possess, and (d) realism, which is a measure of how realistic the clients' expectations are. "The tests psychologists construct in order to measure variables often serve as operational definitions of the concept under research" (Coolican, 2004, 187p). As the EAAT questionnaire considers major dimensions of what clients may expect when receiving a service such as counseling, consulting or physiotherapy (e.g., dimensions about the deliverer's characteristics, the process, the outcome and also their expectations of themselves when engaging in the service process), the questionnaire not only offers an accurate measurement of the expectations, but also provides a comprehensive definition of athletes' expectations in service delivery contexts. The EAAT instructions are as follows:

> As an athlete, imagine that you are injured and about to see a sport physiotherapist for your first visit. We would like to know just what you think about visiting a physiotherapist for sports injury rehabilitation. On the following pages you will find a number of statements about physiotherapy and mental training. In each instance you are to indicate your level of agreement regarding what you expect the physiotherapy visit to be like.

The term "athletic trainer" was modified to "physiotherapist" to fit the European terminology. Participants responded to the 66 items by rating their expectations on a 7-point Likert scale (1=strongly disagree, 7=strongly agree). A demographic information sheet and an item comprehension form, a form allowing participants to provide feedback about the scale, were distributed with the questionnaire. The demographic questions not only helped to describe the sample, but also served to check the heterogeneity of sample characteristics (Carron, Widmeyer, & Brawley, 1985). The study aimed to collect a heterogeneous sample for scale validation.

6.3 Procedure

The EAAT questionnaire was translated into Finnish and administrated to a sample of Finnish athletes and sports science students contacted through a nonrandom convenience sampling. Most questionnaires were completed in small groups, but in some cases, the athletes completed the questionnaire individually. Following a brief introduction of the researcher and the study, the EAAT questionnaire, demographic information sheet, item comprehension form, an information sheet, and consent form were handed to the athletes simultaneously (see appendixes for original and translated forms). Through the information sheet, participants were informed that their responses would remain confidential and that they could refuse to participate, withdraw from the study, or refuse to answer any questions. Informed consent was asked using the consent form. Subsequently, participants were instructed to respond to each item by imagining their first session with a sport physiotherapist after a sport injury. A Finn accompanied the researcher for interpretation when necessary. After the athletes completed the questionnaire and handed in all the forms to the researcher, they were thanked for their participation. It was stated on the distributed information sheet of the study that results and further details of the study could be obtained upon request. While the researcher was present in most of the data collection sessions to provide information about the research and answer questions, in situations where the researcher could not be present, the team's or sport club's representative collected the data on behalf of the researcher. The representatives all received instructions from the researcher to ensure that participants received important information and followed similar data collection guidelines.

6.4 Translation procedure

A Finnish sport psychology researcher, fluent in both Finnish and English, translated the original English version of the Expectations About Athletic Training (EAAT) questionnaire into Finnish. Following the initial translation, a Finnish sport psychology professor who is fluent in both languages and also an expert on the topic, back translated the questionnaire into English. Back translation is a procedure commonly employed to check the accuracy of translations and to verify that the meanings of the questionnaire remain consistent. After the back translation procedure, the two translators and main researcher held a meeting to discuss the translation process. Language-specific issues were discussed and questionable items were modified after

careful deliberation. For example, the sentence structure of item 35 was altered as the words confidence and trust translate into the same word in Finnish. The word "mental plan" of item 43 was translated into "way of thinking" as a direct translation of the concept did not exist in the Finnish language. The word "problem," however, was most complicated to translate. A language-specific issue emerged with the repetitive use of the word "problem" as, in Finnish, the word "problem" carried a serious and more negative connotation than in English. How the word was translated was important as it could influence athletes' tones and attitudes toward those items. Furthermore, the definition of "problem" was unclear with many possible interpretations; it could mean the injury itself, a problematic situation caused by the injury, or just any general problem, making translation even more challenging. Consequently, the original creators of the questionnaire were contacted to confirm their original intentions when using the word "problem". The original creators agreed that a "problem" could be interpreted differently for each item. Subsequently, the translators and researcher reviewed the nine items that include the word "problem", discussed the possible interpretations of the word, and determined the meaning for each item until everyone reached an agreement. For example, according to the context, "problem" was translated as "ongelma" which means problem in Finnish, "tilanne" which translates as situation, "vaikeus" which means difficulty, and "vamma" which is an injury or disability. As the main aim of the translation was to create a Finnish version that mirrors the English questionnaire as closely as possible, not all ambiguous items were redefined and clarified. Some items, which could be understood in different ways in the original questionnaire, were translated to remain as such. For instance, the meaning of item 64 "get along well in the world" was uncertain as it could be understood as getting along well in the world financially or socially. Nevertheless, the item was directly translated so that the interpretation would remain similar to the original questionnaire.

Following the revision from the meeting, the senior professor of sport and exercise psychology of the University of Jyväskylä was consulted to review and refine the final version of the questionnaire. Additionally, a small pilot study was conducted with five Finnish university students to check for errors and increase the readability of the questionnaire. Only minor adjustments were made. The translated scale can be found in appendix 4.

6.5 Data Analysis

The discussion with the translators and thesis supervisor increased the content validity of the scale. Additionally, the data analysis procedure of the original version of the EAAT questionnaire, the Expectations about Counseling (EAC) questionnaire (Tinsley et al., 1980), was followed to confirm the previously hypothesized three-factor model. The first step of data analysis was calculating the means of the 18 scales. Nevertheless, the realism scale was excluded from factor analysis due to the need for contextual interpretation of the results. The remaining 17 mean scores were calculated by averaging the scores of the items that formed the 17 scales. Subsequently, the mean scores were used in a principle component analysis with direct oblimin rotation, and the extracted factors were compared with the previous research findings to confirm the validity of the scale. The advantage of oblique rotations is that the factor axes do not need to be orthogonal to each other and the absence of an orthogonality assumption in a factoring approach is probably more realistic when the theoretical constructs under examination are considered related (Carron et al., 1985). The eigenvalue and the scree plot determined the number of factors extracted. As suggested by Carron et al. (1985), for samples of $n > 175$ the loading of .30 was considered as a generally accepted minimum. Despite following the data analysis procedure of the original EAC questionnaire, the results did not confirm the existing three-factor model. Thus, a direct comparison of the results between the U.S. study and the present study was not possible because the relationships between the items were not similar.

For the purpose of examining the underlying constructs of the Finnish version of the EAAT questionnaire, a second principle axis analysis using direct oblimin rotation was conducted on the 54 original items (realism items excluded), rather than on the 17 mean scores. The eigenvalue and the scree plot determined the number of factors extracted. The newly formed factors were then compared with the original 17 scales to examine whether the new factors are measuring similar constructs with the originally proposed constructs. A majority of the items clustered in factors similar to the scales. Thus, the researcher, the main thesis supervisor and two sport researchers from the collaborating research institution, KIHU proceeded with a factor comparison and selection process in order to select only those factors, which measure similar constructs as with the original scales. The researchers compared the factors with scales and selected the items that had the highest loadings and content validity while deleting the items that were loading on

the "wrong" scale with low loadings and face validity. For example, if items 12, 13, 16 and 44 were highly loading on Factor 1, as 12, 13, and 16 are items for the scale "motivation", item 44 would be omitted and factor 1 was labeled as the "motivation" scale. The process of item selection by various experts represents a form of content validation (Carron et al., 1985). After items were deleted, the remaining items were obliquely rotated for construct validation. The solution was constrained to the number of remaining scales, in order to give support to the item selection process. Following scale validation, the internal reliability of the scales with more than three items was examined using Cronbach's alpha.

Individual sample t-tests and one-way ANOVAs was used to explore the differences in the subscales of athletes' expectations according to gender, age, competition level, injury type, injury severity, team or individual sports, years of involvement in sports, training hours, previous experience of physiotherapy, previous use of MST in rehabilitation, and whether they are athletes or not. For the purpose of data analysis, the number of injuries had to be recalculated as many participants had trouble recalling the exact amount of injuries that they had. Several athletes answered with either a range of numbers (e.g., 3~7 injuries) or an approximate amount (e.g., many injuries, a couple, several, a few) instead of an exact number of injuries. Therefore, the average of a range of injuries was calculated and considered as the number of injuries the participant sustained. In the case where participants answered with an approximate amount, the injuries were calculated by adding the amount of injuries the participant had ascribed for each injury subcategory together (e.g., 2 minor injuries, 3 major injuries was calculated as 5 injuries in total). The average was calculated for the years of sports involvement or weekly training hours as well, when the values were presented with a range rather than a definite number. Furthermore, the subjects' scores of the 11 factors were correlated to the 13 items on the realism scale to provide contextual explanations of the realism items.

6.6 Systematic literature search

The following databases were used: Nelli, JYKDOK, SportDiscuss, Ebscohost, PsychArticles, PubMed, Google scholar, Amazon search

Keywords: Physiotherapy, Physical Therapy, Athletic Trainer, Sport, Injury, Rehabilitation, Psychology, Expectation, Wiese-Bjornstal (D.), Integrated Model of

psychological response to sport injury and rehabilitation, Counseling, Tinsley (H.E.), EAC-B, EASPC, EAAT

7 RESULTS

7.1 Validity and Reliability of the EAAT

Principle component analysis using direct oblimin rotation resulted in 3 factors with eigenvalues higher than one, explaining 59.16% of total variance. However, the hypothesized three-factor model of the Expectations About Athletic Training (EAAT) questionnaire was not confirmed, as the scales were not loading on their proposed factors. Thus, the EAAT questionnaire consists of different subscales when translated into Finnish. The pattern matrix of the original 17 factor mean scores is illustrated in table 1.

Table 1. Pattern matrix of 17 mean scores. Factor loadings, communalities and explained variance

	Pattern Matrix Factors			
	1	2	3	h^2
Empathy	**.77**	-.14	.10	.61
Expertise	**.71**	.08	.08	.60
Selfdisclosure	**.71**	.07	.13	.63
Confrontation	**.70**	.07	.06	.56
Concreteness	**.63**	-.15	.41	.67
Nurturance	**.58**	.36	.05	.62
Tolerance	.10	**.78**	-.10	.60
Acceptance	.42	**.67**	-.15	.68
Motivation	-.28	**.62**	.28	.51
Attractiveness	-.26	**.59**	.33	.52
Genuineness	.25	**.52**	.13	.49
Trustworthiness	.49	**.52**	.04	.67
Directiveness	.33	**.43**	.08	.41
Responsibility	.11	-.12	**.80**	.64
Openness	.15	-.00	**.74**	.64
Immediacy	.01	.25	**.66**	.64
Outcome	.17	.11	**.62**	.57
Eigen values	7.01	1.75	1.30	
Explained variance	41.24%	10.29%	7.63%	59.16%

Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.

Subsequently, the 53 items of the Finnish EAAT questionnaire (realism items excluded), in place of the mean scores of the 17 scales, were analyzed using principle axis analysis with direct oblimin rotation. 13 factors had eigenvalues higher than one,

explaining 63.57% of the total variance. The pattern matrix for the obliquely rotated 53-item questionnaire is presented in table 2.

When the newly rotated 13 factors were compared to the 17 scales of the previous EAC-B, EASPC, and EAAT questionnaires, some items grouped into similar factors as with the original 17 scales. For example, items 31, 35, 36, 42, and 50 formed factor 1, which can be compared with the original nurturance scale that includes items 31, 42, and 50. The assignment of items to the original 17 scales can be found in appendix 5. Consequently, the researcher, the main thesis supervisor and two sport researchers from the collaborating research institution, KIHU, compared the 13 factors with the 17 scales. As a result, 27 items and 11 scales were selected due to their high content validity and loadings and the other items were omitted. Following the item deletion, in order to confirm the construct validity of the selected scales and support the item selection process, the remaining 27 items were reanalyzed using principle component analysis with direct oblimin rotation. When constrained to 11 factors, all items were loading on the assumed factors, giving confidence to the item selection and confirming the construct validity of the remaining scales. Seven out of the 11 factors had an eigenvalue greater than one and explained 60.43% of the total variance. All of the items met the minimum-loading criterion of .30. Seven out of the 11 interpretable factors had more than three items and six factors consisted of only two items. The pattern matrix of the reduced EAAT questionnaire is presented in table 3.

Table 2. Pattern matrix of the 53 items (realism items excluded). Factor loadings, communalities and explained variance

	Pattern Matrix Factors													
	1	2	3	4	5	6	7	8	9	10	11	12	13	h^2
Q31	**.75**	.11	.15	-.04	-.14	.02	-.06	-.04	.04	.02	-.00	.14	.00	.74
Q35	**.71**	.04	-.10	.08	.00	.18	.10	.13	.10	-.05	-.00	.06	.01	.70
Q36	**.52**	.02	-.11	-.08	-.20	.02	.01	-.09	.08	-.12	.22	-.10	.12	.54
Q42	**.51**	.23	.08	-.03	-.09	-.14	-.02	.10	.04	-.29	-.03	.15	-.01	.66
Q50	**.43**	.00	-.03	-.09	.07	.11	-.04	.40	-.02	-.13	-.18	-.21	.08	.56
Q13	.09	**.76**	-.10	.00	.09	.11	-.07	.00	-.03	-.07	.09	.14	-.00	.67
Q16	-.02	**.73**	.31	-.08	-.11	-.02	.09	-.10	.10	.10	-.13	-.18	-.00	.71
Q12	.10	**.68**	-.08	.01	.05	.16	.08	-.07	-.02	-.01	.08	-.08	.01	.61
Q17	-.09	.18	**.68**	-.04	-.01	.034	.11	.12	.11	.04	.07	.05	-.02	.66
Q6	.12	-.02	**.61**	-.11	.06	-.03	.15	-.09	-.04	-.13	.01	.14	.09	.57
Q4	-.05	-.06	**.51**	.09	-.15	.28	.36	.06	.23	.14	.02	-.01	.02	.66
Q25	-.09	.09	-.042	**-.83**	-.01	.00	-.01	-.09	.12	-.04	-.05	-.09	.06	.67
Q29	-.08	-.02	-.074	**-.82**	-.00	.03	.01	.10	-.06	-.01	-.04	.03	-.10	.66
Q27	.09	-.05	.154	**-.70**	-.13	.04	-.12	-.17	-.06	.06	.08	-.03	.17	.66
Q37	.18	-.07	.105	-.14	**-.70**	-.11	-.08	-.03	.01	.01	.10	-.07	-.11	.63
Q47	.07	.07	-.148	-.10	**-.61**	.10	.09	-.02	-.03	-.16	-.07	.03	.08	.59
Q54	-.05	.03	-.012	.05	**-.57**	.11	.00	-.00	-.00	-.30	.12	-.02	.25	.64
Q23	.11	.12	.016	-.17	**-.37**	-.04	.37	.31	-.27	.07	-.08	.12	-.01	.62
Q43	.29	.16	-.03	-.09	**.30**	-.15	-.05	.24	.27	-.22	.17	.13	-.02	.60
Q21	-.04	.18	.19	-.09	**-.30**	.19	-.00	.04	.16	-.08	.25	.12	-.27	.57
Q15	.02	.10	-.02	-.05	-.03	**.80**	-.20	.10	-.07	-.05	-.07	.03	-.08	.73
Q8	.06	.12	-.06	-.02	.03	**.78**	.04	-.01	-.02	-.10	-.06	.05	.00	.72
Q2	-.03	.02	.11	-.00	.05	**.57**	.34	-.10	.10	-.13	.12	-.10	-.05	.62
Q5	-.04	.07	.18	.08	.04	-.01	**.80**	-.06	-.07	.04	.02	.06	.10	.72
Q33	.17	.03	-.04	-.18	-.25	.01	**.42**	.10	.15	-.03	.01	.23	-.31	.62
Q62	-.01	-.10	.10	.03	.03	.10	-.04	**.77**	-.06	-.04	-.07	.04	.11	.67
Q51	.03	.02	-.09	-.02	-.06	-.03	.03	**.76**	.01	-.01	.15	-.07	-.07	.64

Q59	-.05	-.05	.02	.02	.06	.04	.01	**.57**	.26	-.14	.09	.13	.16	.64
Q32	.19	-.08	.16	-.10	.02	.08	-.09	**.46**	.36	.20	.07	.14	-.04	.67
Q53	.07	.04	.06	.16	-.07	.02	.12	**.37**	.32	-.16	.03	-.05	.26	.51
Q45	.11	.03	.09	-.09	.03	-.04	.02	.08	**.72**	-.08	.05	-.07	.10	.65
Q28	.22	-.05	-.04	-.25	.03	.11	-.07	.13	**.47**	.11	.05	.31	-.09	.65
Q9	.36	.05	.02	-.16	-.08	.25	.17	.13	**-.38**	.15	.12	.02	.01	.60
Q58	.07	.10	.00	-.08	-.01	.13	-.06	.01	.09	**-.69**	-.03	.07	.09	.68
Q39	.03	.03	-.00	.05	-.21	.12	-.03	.10	-.01	**-.68**	.07	-.06	-.31	.73
Q56	.08	.05	-.02	-.08	.11	.11	.13	.07	.14	**-.68**	-.12	.13	.01	.70
Q57	.17	.00	.28	-.01	-.07	.03	-.07	.11	-.05	**-.63**	-.08	-.12	.12	.68
Q64	-.00	-.05	-.16	-.05	-.18	.11	.07	-.12	.03	**-.59**	.07	.13	.17	.56
Q38	.20	-.05	.33	-.01	-.22	-.07	-.23	.18	.00	**-.51**	.06	-.12	-.25	.71
Q60	-.20	.04	-.25	-.12	-.16	.09	.17	.20	-.05	**-.46**	.17	.03	.08	.56
Q7	.05	-.17	.35	-.01	.03	.05	-.01	.08	-.15	**-.37**	.05	.35	.06	.56
Q34	.08	-.02	-.15	-.02	-.07	-.14	.14	.15	.25	-.01	**.66**	.09	-.09	.66
Q19	-.20	.35	.29	-.00	-.16	.02	-.12	.01	-.03	-.07	**.51**	.00	.02	.64
Q20	-.02	.08	.09	-.06	-.20	.26	-.06	.01	-.01	.09	**.48**	-.07	.17	.52
Q10	-.02	.28	-.01	-.16	.01	.03	.05	.20	-.29	.03	**.48**	.05	.06	.60
Q30	.32	.08	.15	-.09	.04	-.03	-.26	-.06	-.08	.05	**.43**	.26	.24	.64
Q40	.19	-.27	.17	-.28	.26	-.01	.25	-.08	.09	-.15	**.42**	-.27	-.12	.67
Q3	.29	.03	.04	-.03	.10	.09	.21	-.04	-.28	.01	**.37**	-.31	.07	.55
Q22	.22	-.04	.04	.02	-.02	.14	.19	-.07	.11	-.17	-.05	**.63**	.11	.69
Q24	.08	-.02	.39	.08	.07	-.03	.08	.11	-.25	-.05	.14	**.54**	-.04	.65
Q26	.02	-.16	.25	-.13	.07	.30	-.10	.28	.14	.21	.12	**.37**	.08	.66
Q41	-.04	-.01	.13	-.31	.09	-.16	.10	.27	.12	-.18	-.01	**.35**	-.01	.54
Q66	.16	.16	.04	-.09	.07	.05	.16	.28	-.26	-.19	-.01	**-.32**	.08	.49
Q49	.05	.01	.02	-.13	-.12	-.13	.08	.20	.15	.01	.03	.07	**.69**	.69
Eigen Values	12.36	3.99	3.02	2.37	1.91	1.67	1.59	1.47	1.36	1.22	1.20	1.15	1.03	
Explained Variance	22.89%	7.39%	5.58%	4.39%	3.53%	3.03%	2.95%	2.73%	2.51%	2.26%	2.21%	2.14%	1.90%	**63.57%**

Table 3. Pattern matrix of the 27 items (realism items excluded). Factor loadings and communalities. Reliability of measure: alpha of Cronbach

	Patter Matrix Factors											
	Acceptance	Motivation	Attractiveness	Responsibility	Directiveness	Empathy	Confrontation	Nurturance	Genuineness	Openness	Outcome	h^2
Q56	**.84**	-.05	-.05	.13	.12	.04	.00	-.09	-.13	.02	.03	.83
Q58	**.82**	.03	-.03	-.04	.10	.05	.04	.02	.03	-.03	-.07	.78
Q39	**.67**	-.03	-.10	-.05	-.16	-.04	.02	-.05	.37	.01	-.01	.71
Q12	-.07	**.79**	-.12	.14	.02	.03	.00	-.05	.02	.13	-.02	.73
Q16	-.05	**.71**	.00	-.01	.19	-.09	-.03	.06	.13	-.37	.11	.75
Q13	.10	**.69**	-.06	-.05	-.08	.08	-.01	-.11	-.10	.07	-.27	.69
Q8	.03	.12	**-.84**	.02	-.10	.06	.02	-.01	.02	.09	-.07	.80
Q15	.08	.05	**-.82**	-.24	.08	-.13	.13	.06	.05	-.07	.01	.80
Q2	.06	-.02	**-.59**	.37	.05	.03	-.20	-.10	-.03	-.11	-.04	.66
Q5	.05	.11	.06	**.89**	-.10	-.02	.00	.10	-.02	-.10	-.03	.79
Q23	.01	-.04	.01	**.42**	.13	-.26	.25	-.29	.21	.03	-.23	.66
Q25	.07	.08	.00	.01	**.89**	.07	.01	.12	.11	.07	.09	.83
Q27	.02	-.05	.01	-.13	**.75**	-.02	-.06	-.14	-.04	-.11	-.24	.76
Q45	.12	.10	.13	.03	.01	**.81**	.06	.02	.03	-.02	.03	.73
Q28	-.09	-.07	-.10	-.08	.07	**.74**	.09	-.17	.02	-.02	-.06	.69
Q62	.09	-.06	-.08	-.11	-.05	.02	**.79**	.01	-.06	-.21	.01	.75
Q51	-.06	.06	.01	.11	.01	.08	**.79**	-.08	.14	.11	-.03	.72
Q59	.21	-.07	.02	.02	.05	.37	**.56**	.07	-.10	-.07	-.07	.70
Q31	-.03	.05	-.03	-.08	-.04	.14	-.07	**-.79**	.15	-.17	-.02	.76
Q42	.31	.15	.10	-.10	-.02	.06	.00	**-.61**	.08	-.13	-.04	.70
Q50	.10	.01	-.10	.11	.16	-.00	.29	**-.60**	-.19	.23	.14	.70
Q47	.16	.09	-.12	.04	.05	.02	.04	.01	**.76**	.06	.14	.72
Q37	-.08	-.06	.08	-.03	.10	.02	-.01	-.11	**.70**	-.01	-.26	.67
Q17	.05	.05	.03	.04	.01	.01	.07	-.14	-.07	**-.83**	-.06	.81

Q4	-.06	-.12	-.19	.38	.05	.17	.09	.01	.05	**-.58**	.00	.72
Q20	.03	.01	-.11	.08	.12	.13	-.11	.06	.07	.02	**-.77**	.72
Q10	.03	.20	.01	-.02	-.01	-.16	.24	-.01	-.00	-.09	**-.64**	.65
Eigen Value	6.44	2.58	1.81	1.77	1.34	1.29	1.08	.94	.90	.87	.80	
Factor Reliability	.80	.72	.75				.77	.70				**.79**

Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.

The internal reliability (alpha of Cronbach) of the reduced version of the EAAT questionnaire was moderately high (.79). The internal reliability of the five scales that had more than three items ranged from .70 to .80. As the scores exceeded the recommended alpha value of .70 (Nunnally & Berstein, 1994), the scales were judged to have moderately high internal consistency reliability. The removal of any item would not drastically change the internal reliability of the scales. The final factors and items included in the Finnish version of the EAAT questionnaire are presented in table 4.

Table 4. Assignment of items to final factors in the Finnish EAAT questionnaire

Factor	Items
EAAT Acceptance	39. Be friendly and warm towards me
	56. Like me
	58. Like me in spite of my weaknesses or strengths that he or she discovers about me
EAAT Motivation	12. Continue the physiotherapy visits for at least a few weeks, even if at first I am not sure it will help
	13. See the physiotherapist for more than three visits
	16. Continue to visit the physiotherapist even though it may be painful or unpleasant at times
EAAT Attractiveness	2. Like the physiotherapist
	8. Enjoy my visit with the physiotherapist
	15. Enjoy being with the physiotherapist
EAAT Responsibility	5. Take responsibility for making my own decisions
	23. Ask the physiotherapist to explain what he or she means whenever I do not understand something that is said
EAAT Directiveness	25. Explain what's wrong
	27. Tell me what to do
EAAT Empathy	28. Know how I feel even when I cannot say quite what I mean
	45. Know how I feel at times, without my having to speak
EAAT Confrontation	51. Make me face up to the differences between what I say and how I behave
	59. Make me face up tot the differences between how I see myself and how I am seen by others
	62. Point out to me the differences between what I am and what I want to be
EAAT Nurturance	31. Give encouragement and reassurance
	42. Give me support
	50. Praise me when I show improvement
EAAT Genuineness	37. Be honest with me
	47. Respect me as a person
EAAT Openness	4. Openly express my emotions regarding my problems and myself
	17. Contribute as much as I can in terms of expressing my feelings and discussing them
EAAT Outcome	10. Get a better understanding of the injury and myself
	20. Become better able to help myself in the future

The interscale correlations are presented in table 5. There are moderately low correlations, ranging from .01 to .30. The correlations prove that the oblique rotation, rather than orthogonal rotations, was a more suitable solution.

Table 5. Factor correlations

Factor	1	2	3	4	5	6	7	8	9	10	11
1	1.000										
2	.115	1.000									
3	-.286	-.209	1.000								
4	.030	.072	-.164	1.000							
5	.148	.102	-.110	.030	1.000						
6	.219	-.045	-.049	.010	.132	1.000					
7	.298	.027	-.100	.081	.116	.205	1.000				
8	-.275	-.139	.134	-.081	-.190	-.171	-.275	1.000			
9	.177	.135	-.102	.043	.184	-.032	.034	-.158	1.000		
10	-.068	-.096	.104	-.143	-.133	-.138	-.088	.082	-.076	1.000	
11	-.072	-.215	.132	-.111	-.185	-.029	-.131	.231	-.188	.146	1.000

7.2 Athletes' Expectations about Physiotherapy

As the formerly hypothesized three-factor model was not confirmed, the mean scores for the final remaining 11 factors were calculated to represent 11 different dimensions of athletes' expectations about physiotherapy in injury rehabilitation. The mean scores and standard deviations are presented in table 6, with box plots for each factor found in graph 1.

Table 6. Mean scores of the final 11 factors

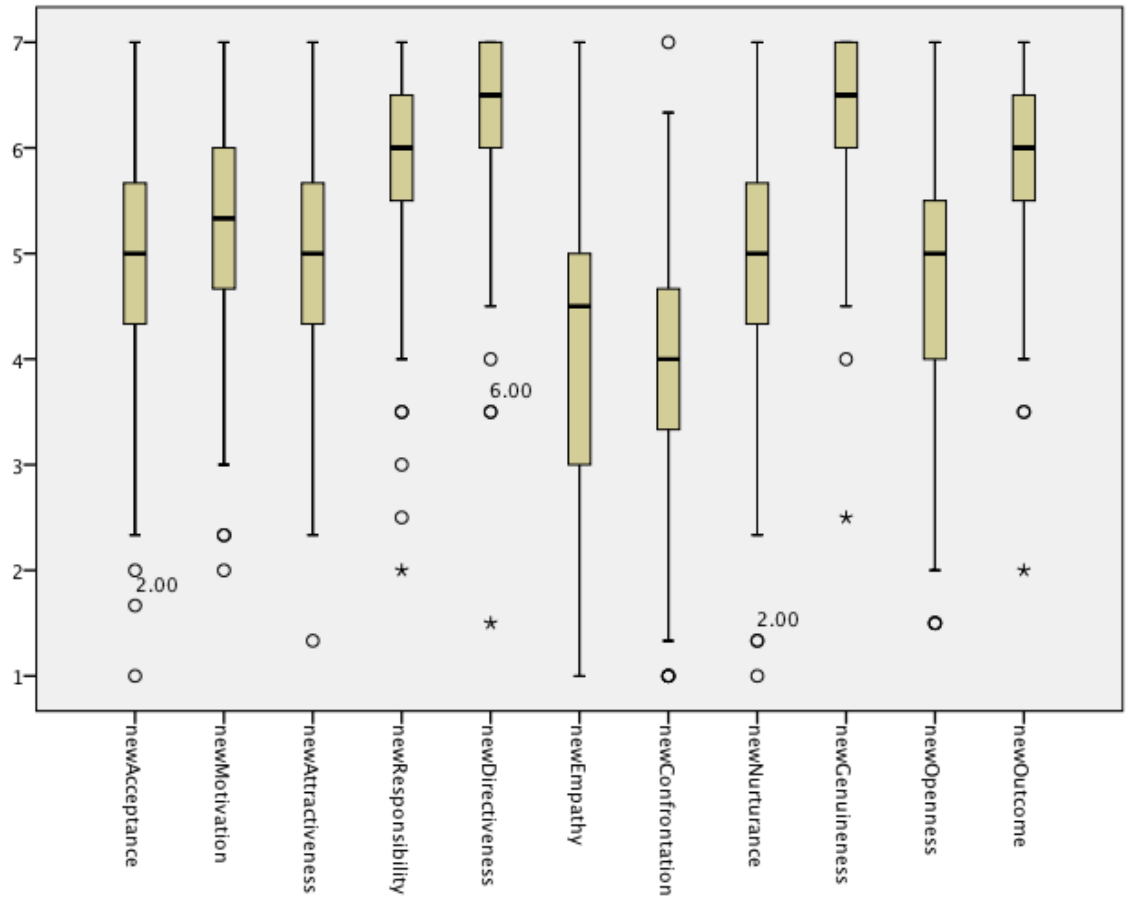
	$\overline{X}$	SD
Acceptance	4.87	1.06
Motivation	5.34	0.98
Attractiveness	4.94	0.89
Responsibility	5.83	0.83
Directiveness	6.40	0.76
Empathy	4.08	1.29
Confrontation	4.01	1.16
Nurturance	4.96	1.03
Genuineness	6.22	0.74
Openness	4.72	1.21
Outcome	5.89	0.80
n	247	

The descriptive analysis of mean and standard deviation values of the 11 factors show that Finnish athletes have neutral to high expectations for all 11 dimensions of athlete expectancies. Finnish athletes reported having the highest expectations for the physiotherapist to be direct (*M*=6.40, *SD*=.76) and genuine (*M*=6.22, *SD*=.74) by explaining what is wrong and telling them what to do. Moreover, Finnish athletes expect the physiotherapist to be honest and respect them as a person. As an outcome of the physiotherapy sessions, athletes responded that they expect to get a better understanding of the injury and themselves, and become better able to help themselves in the future (*M*=5.89, *SD*=.80). Furthermore, Finnish athletes moderately expect to take responsibility (*M*=5.83, *SD*=.83) for making their own decisions and asking the physiotherapist to elaborate when they do not understand something. The mean scores also show that Finnish athletes moderately expect to be personally committed to the physiotherapy sessions (*M*=5.34, *SD*=.98) by being motivated to attend the sessions even when skeptical of the effectiveness, and even when the sessions are painful or unpleasant at times. Finnish athletes also responded that they moderately expect to like

and enjoy the physiotherapist and the physiotherapy sessions (*M*=4.94, *SD*=.89) and to be open in expressing their emotions (*M*=4.72, *SD*=1.21) to the physiotherapist.

In addition to athletes' personal characteristics in physiotherapy, athletes also had expectations for how the physiotherapist will behave in rehabilitation. Athletes reported moderately high expectations for the physiotherapist to be accepting (*M*=4.87, *SD*=1.06) and nurturing (*M*=4.96, *SD*=1.03) by being friendly and warm, providing support and encouragement, and liking them despite their weaknesses. However, athletes reported feeling neutral about expecting their physiotherapists to empathize with them by knowing how they feel even when they cannot say quite what they mean or without them having to speak (*M*=4.08, *SD*=1.29). Moreover, Finnish athletes were neutral about expecting physiotherapists to confront their incongruencies between their speech and behaviors, between actual self and ideal self, and the differences between how they see themselves and how others perceive them (*M*=4.01, *SD*=1.16).

Graph 1. Box plots for the new 11 factors, whole sample (n=247)



7.2.1 Athlete Expectation Comparisons

Differences in Finnish athletes' expectations of physiotherapy according to athlete status, gender, previous physiotherapy experience, competition level, injury type, and previous experience in incorporating MST in rehabilitation were measured using individual sample t-test and one-way ANOVA. The comparison results are presented below.

Athlete Status

An independent sample t-test was conducted to determine whether there are differences in the responses among those who are currently athletes and those who are not (Table 7). Results revealed no significant differences between the expectations of athletes and non-athletes. This indicates that differentiating between athletes' and non-athletes' responses is unwarranted in this study. Thus, from hereon, the present study does not distinguish between the responses of athletes and the students studying in the sports faculty and all participants are referred to as an athlete.

Table 7. Expectations about physiotherapy between athletes and non-athletes for the 11 factors (whole sample)

Variables	Athlete (n=221)		Non-athlete (n=26)			
	$\overline{X}$	SD	$\overline{X}$	SD	t	p
Acceptance	4.87	1.07	4.82	0.92	.23	.82
Motivation	5.36	0.97	5.14	1.08	1.1	.28
Attractiveness	4.95	0.91	4.86	0.72	.50	.61
Responsibility	5.86	0.81	5.62	0.98	1.4	.16
Directiveness	6.41	0.77	6.30	0.69	.67	.50
Empathy	4.08	1.30	4.06	1.19	.09	.93
Confrontation	4.01	1.16	3.97	1.18	.15	.88
Nurturance	4.96	1.06	4.94	0.73	.12	.91
Genuineness	6.22	0.76	6.27	0.51	-.33	.75
Openness	4.73	1.23	4.69	1.06	.14	.89
Outcome	5.91	0.81	5.81	0.75	.58	.56

Gender Differences

An independent sample t-test was performed to explore gender differences in Finnish athletes' expectations of physiotherapy (Table 8). Results indicated moderate significant differences between the responses of males and females. Males reported higher expectations for empathy and confrontation compared to females. On the other hand, females had higher expectations for personal motivation than males.

Table 8. Gender differences in expectations about physiotherapy for the 11 factors

Variables	Male (n=139)		Female (n=108)			
	$\overline{X}$	SD	$\overline{X}$	SD	t	p
Acceptance	4.88	0.98	4.85	1.16	.21	.83
Motivation	5.21	0.96	5.50	0.98	-2.32	.02*
Attractiveness	4.86	0.90	5.04	0.87	-1.59	.11
Responsibility	5.80	0.89	5.87	0.76	-.64	.53
Directiveness	6.45	0.70	6.34	0.83	1.18	.24
Empathy	4.25	1.29	3.86	1.27	2.36	.02*
Confrontation	4.15	1.16	3.81	1.14	2.30	.02*
Nurturance	4.98	0.98	4.93	1.09	.36	.72
Genuineness	6.16	0.76	6.31	0.70	-1.61	.11
Openness	4.81	1.15	4.61	1.29	1.30	.20
Outcome	5.94	0.80	5.84	0.80	.98	.33

Previous Physiotherapy Experience

No significant differences were found in the responses between athletes with previous physiotherapy experience and athletes without experience in physiotherapy (Table 9).

Table 9. Independent sample t-test for previous experience in physiotherapy for the 11 factors

Variables	Physiotherapy (n=170)		No Physiotherapy (n=71)			
	$\overline{X}$	SD	$\overline{X}$	SD	t	p
Acceptance	4.85	1.07	4.94	1.02	-.62	.54
Motivation	5.31	1.02	5.39	0.90	-.58	.56
Attractiveness	4.95	0.92	4.94	0.84	.12	.91
Responsibility	5.87	0.81	5.74	0.92	1.10	.27
Directiveness	6.41	0.76	6.39	0.78	.25	.80
Empathy	4.11	1.28	4.03	1.34	.46	.65
Confrontation	3.97	1.20	4.11	1.09	-.88	.38
Nurturance	4.93	1.05	5.02	1.02	-.59	.56
Genuineness	6.21	0.75	6.28	0.74	-.70	.49
Openness	4.80	1.20	4.53	1.25	1.60	.11
Outcome	5.90	0.83	5.87	0.76	.30	.77

Competition Level (Nurturance)

Leven's test indicated equality in variance (p=.85). An analysis of variance showed a statistical difference between athletes' expectations for nurturance $F(4, 231) = 2.67$, $p = .03$ (Table 10). Post hoc analysis using Hochberg's GT2 criterion for significance indicated that professional athletes had higher expectations for nurturance than recreational athletes or national level athletes.

Table 10. Nurturance expectations of athletes from various competition levels

Group	n	$\overline{X}$	SD	ANOVA	Hochberg
(R1) Recreational	48	4.81	1.09	F=2.67	R5>R1
(R2) Regional	25	4.93	0.99	df=4	(p=.02)
(R3) National	133	4.92	1.02	p=.03	R5>R3
(R4) International	12	5.14	1.14		(p=.03)
(R5) Professional	18	5.69	0.83		
Total	236	4.97	1.04		

There were no statistically significant differences in other expectations about physiotherapists between athletes from various competition levels.

Injury Type (Motivation)

Leven's test indicated equality in variance (p=.33). An analysis of variance revealed a statistically significant difference for motivation expectations between athletes with different types of sport injuries $F(2, 233) = 4.01$, p=.02. (Table 11). Post hoc analysis using Hochberg's GT2 criterion for significance indicated a difference between athletes with acute injuries and chronic injuries. The athletes with acute injuries reported to have higher expectations for motivation in physiotherapy (M=5.52, SD=.96) than chronically injured athletes (M=4.83, SD=1.22, p=.02).

Table 11. Motivation expectations of athletes with different types of sport injury

Group	n	$\overline{X}$	SD	ANOVA	Hochberg
(R1) Acute Injury	88	5.52	0.96	F=4.009	R1>R2
(R2) Chronic Injury	18	4.83	1.22	df=2	(p=.02)
(R3) Both	130	5.28	0.96	p=.02	
Total	236	5.34	0.99		

There were no statistically significant differences in other expectations about physiotherapists between athletes with different types of injuries.

Previous Mental Skills Training (MST) experience

The differences in the responses between athletes who have previous experience incorporating MST techniques in rehabilitation and those who do not were measured through an individual sample t-test (Table 12). Results revealed moderate significant differences between expectations of athletes with previous MST experience and athletes without previous MST experience for motivation, nurturance, and outcome. Participants

with previous experience in using MST had higher expectations for all three variables than those who had not tried MST in rehabilitation.

Table 12. Expectations about physiotherapy between athletes with or without previous experience using MST in rehabilitation

Variables	MST in rehab (n=49)		No MST (n=195)			
	$\overline{X}$	SD	$\overline{X}$	SD	t	p
Acceptance	5.03	0.98	4.82	1.07	1.26	.21
Motivation	5.62	0.80	5.27	1.01	2.22	.03*
Attractiveness	4.89	0.99	4.95	0.87	-.42	.68
Responsibility	5.88	0.79	5.83	0.85	.39	.70
Directiveness	6.45	0.72	6.39	0.77	.51	.61
Empathy	4.16	1.21	4.07	1.32	.45	.65
Confrontation	4.29	1.07	3.93	1.18	1.89	.06
Nurturance	5.25	1.06	4.88	1.02	2.23	.03*
Genuineness	6.33	0.59	6.20	0.77	1.25	.21
Openness	4.96	1.00	4.67	1.26	1.73	.09
Outcome	6.11	0.70	5.84	0.82	2.14	.03*

7.2.2 Correlation with Realism Items

Descriptive statistics of the 13 realism scale items are presented in table 13. The degrees of correlation between the mean scores of the final 11 factors and mean scores of the 13 realism scale items were measured using pearson correlation. The correlation values are presented in table 14.

Table 13. Mean and standard deviation of realism items

	n	$\overline{X}$	SD
Take psychological tests	247	2.36	1.40
Complete physiological assessments	245	5.80	1.09
Never need to visit the physiotherapist again	245	2.33	1.33
Work with the physiotherapist in setting my rehab goals	247	6.16	0.93
Fix my problems	246	5.95	1.25
Do most of the talking	245	4.02	1.31
Help me regain pre-injury fitness level	244	5.92	1.06
Set clear, specific, measurable goals for rehab	247	5.68	0.98
To use psych interventions during physiotherapy treatment	247	4.21	1.53
Assist in positive self-talk use	246	3.83	1.33
Just give me information	245	3.63	1.50
Introduce me to athletes who have/had similar injuries	247	4.02	1.51

Table 14. Correlation with realism items

	Accept	Motivat	Attract	Respons	Direct	Empath	Confron	Nurtur	Genuine	Open	Out
Take psychological tests	.174**	.074	.084	.102	.084	.267**	.290**	.231**	.031	.336**	.142*
Complete physiological assessments	.127*	.294**	.224**	.199**	.220**	.067	.056	.298**	.255**	.116	.346**
Never need to visit the physiotherapist again	.055	-.253**	-.164*	-.023	-.032	.079	.080	.046	-.058	-.026	-.104
Work with the physio in setting my rehab goals	.158*	.498**	.288**	.333**	.263**	-.039	.044	.282**	.407**	.217**	.445**
Fix my problems	.247**	.020	.138*	.000	.294**	.209**	.095	.145*	.158*	.111	.206**
Do most of the talking	.100	-.038	.090	-.070	.082	.267**	.206**	.176**	-.065	.064	.047
Help me regain my pre-injury level of fitness	.188**	.087	.030	.217**	.248**	.204**	.159*	.199**	.300**	.153*	.224**
Set clear, specific measurable rehab goals	.306**	.282**	.286**	.303**	.223**	.089	.267**	.422**	.369**	.154*	.305**
Use psychological interventions during treatment	.441**	.147*	.152*	.215**	.183**	.298**	.585**	.454**	.119	.362**	.257**
Assist me to use positive self talk	.348**	.107	.154*	.200**	.064	.298**	.668**	.412**	.075	.366**	.191**
Just give me information	-.156*	-.172**	-.137*	-.018	-.125	-.047	-.073	-.183**	-.209**	-.112	-.077
Introduce athletes with similar injuries	.252**	.087	.124	.110	.192**	.144*	.407**	.240**	.050	.153*	.124

Accept = Acceptance, Motivat = Motivation, Attract = Attractiveness, Respons = Responsibility, Direct = Directiveness, Empath = Empathy, Confron = Confrontation, Nurtur = Nurturance, Genuine = Genuineness, Open = Openness, Out = Outcome

Items for expectations of confrontation had the highest correlation values with the realism items. Athletes who expected confrontation from the physiotherapist also expected the physiotherapist to use psychological interventions during treatment, to assist the use of positive self-talk, and to introduce athletes with similar injuries. Acceptance and nurturance had significant correlations with all but two realism items. Expecting to set goals in rehabilitation, to get help from the physiotherapist to regain pre-injury fitness, and to use psychological interventions during treatment correlated with almost all factors.

8 DISCUSSION

8.1 Adapting the EAAT Questionnaire

The first aim of this study was to adapt the Expectations About Athletic Training (EAAT) questionnaire into Finnish. Principle component analysis was performed to explore the subscales of the Finnish EAAT questionnaire, which were proposed to include "scales measuring clients' expectancies regarding their own attitudes, behaviors, and characteristics, and the characteristics of the counseling process and outcome" (Tinsley et al., 1980). Despite a careful translation and back translation procedure, however, the hypothesized three-factor model (personal commitment, facilitative conditions, and physiotherapist expertise) of the EAAT was not confirmed. Consequently, the EAAT questionnaire consisted of different subscales than the original English scale. This may be due to several reasons. First, for the purpose of adapting the scale, principal component analysis (PCA) was conducted instead of confirmatory factor analysis. DeCoster (1998) explains that:

> "The purpose of PCA is to derive a relatively small number of components that can account for the variability found in a relatively large number of measures. This procedure, called data reduction, is typically performed when a researcher does not want to include all of the original measures in analysis but still wants to work with the information that they contain." (p.3)

Moreover, by performing PCA "the data can be analyzed with no preconceived ideas concerning the underlying constructs or structure of the data" (Roberts, 1999, p. 3) and "the principal components are based on the measured responses" (DeCoster, 1998, p.3). This accentuates a methodological limitation of PCA that "a unique quality possessed by a group does not generalize to the population" (Suhr, 2006, p. 3) as the results could be more sample-specific than theory-based. Therefore, although PCA is suitable for reducing the 66 items into 11 representative factors, it is not an ideal method for confirming previously hypothesized theory.

To confirm the theorized three-factor model, in previous versions of the EAAT questionnaire such as the Expectations About Sport Psychology Consulting (EASPC) questionnaire, researchers performed a confirmatory factor analysis (CFA) rather than a principle component analysis or exploratory factor analysis. According to Gorsuch (1983, as cited in Roberts, 1999, p. 3) "whereas the former [exploratory factor analysis]

simply finds those factors that best reproduce the variables under the maximum likelihood conditions, the latter [confirmatory factor analysis] tests specific hypothesis regarding the nature of the factors" (p. 129). As CFA specifically tests for factor structures that are hypothesized by researchers, CFA can only be used when researchers are knowledgeable of the factor structures that underlie the data (Roberts, 1999). The use of exploratory factor analytic techniques, on the other hand, is reasonable "when the research being done is truly exploratory" (Roberts, 1999, p. 3). "This may be the case when a researcher is trying to develop a field where no prior research has been done. In all other cases, past research should be consulted and confirmatory factor analysis should be utilized over exploratory techniques" (Roberts, 1999, p. 4). In other words, "confirmatory factor analysis (CFA) is a theory testing procedure whereas exploratory factor analysis (EFA) is a theory generating procedure" (Stevens, 1996, as cited in Roberts, 1999, p. 3). In the case of the EAAT questionnaire, researchers have already proposed a model of the underlying factors. Because a hypothesized three-factor model exists, subsequent studies are not truly exploratory. This means a theory testing procedure is more fitting for the EAAT questionnaire than a theory generating procedure. Therefore, a confirmatory factor analysis is required for the EAAT questionnaire to determine whether the three-factor model that has been proposed by researchers suits the Finnish athletic population as well.

Secondly, despite a thorough translation process, there were complications in translation that may have influenced the psychometrics of the scale. One translation difficulty was interpreting the meanings of the items that were ambiguous in the original English version of the questionnaire. Although most items were directly translated and remained as ambiguous in the Finnish version, some items were indirectly translated which may have caused a misinterpretation of the original meaning of the items. One example would be the translation of the term "problem". Questions that include the word "problem" (e.g., I expect to gain some information about how to solve problems, I expect the sport injury rehabilitation physiotherapist to discuss his or her experiences and relate them to my problems) could be understood in various ways. Problems could mean the injury itself or problematic situations that the athlete may experience due to the injury such as lack of social support or losing the starting position. In can also refer to life problems in general such as family issues or a breakup. While the English term "problem" includes all of the previously suggested meanings, the Finnish translation of

the word, "ongelma", hinted more towards serious problems in life such as a drinking problem. The connotation suggested more negative events than injuries or problematic situations that occur when one is injured. Thus the translators and supervisor narrowed the meaning of each item into more specific terms of – "tilanne", situation, "vaikeus", difficulty, and "vamma", injury – to refer to the word "problem". Despite a careful deliberation of the word's meaning for all nine items, this estimated reinterpretation of the term may have caused Finnish participants to respond differently compared to American participants. In point of fact, only one of the nine items that include the word "problem" was included in the final 27 questions that comprised the 11 factors. This may indicate low psychometric measures for these items, which could suggest insufficient translation procedures. Not only were the "problem" items excluded from the final 27 questions but all the questions that aroused translation complications also were omitted, as they did not construct the same factors as in the original EAAT questionnaire. Thus, it is suggested that, for improved reliability and validity of the scale, the original creators of the questionnaire clarify the meaning of the ambiguous items. Redefining these items could improve the psychometrics of the questionnaire as well as make the EAAT questionnaire more accessible for further adaptations to different populations and cultures.

Furthermore, as the EAAT questionnaire is a modified version of the Expectations About Sport Psychology Consulting (EASPC) questionnaire, which is again a modified version of the Expectations About Counseling – Brief (EAC-B) form, certain items were reported as unsuitable or awkward for the physiotherapy context. For instance, items concerning emotional guidance (e.g., I expect the sport injury rehabilitation physiotherapist to help me identify and label my feelings so I can better them, I expect to contribute as much as I can in terms of expressing my feelings and discussing them) or physiotherapy as a means to improve relationships (e.g., I expect to improve my relationship with others), practice interaction skills (e.g., I expect to get practice in relating openly and honestly to another person within the physiotherapist-athlete relationship), or develop self-congruency (e.g., I expect the sport injury rehabilitation physiotherapist to make me face up to the differences between how I see myself and how I am seen by others) seemed to confuse participants. Although these items may be suitable when inquired of counselors or sport psychology consultants, Finnish athletes commented that they perceived such items as irrelevant to physiotherapists and their

services. This confusion may have contributed to the emergence of different subscales in the Finnish sample. For future studies, researchers may want to revisit the underlying constructs for athletes' expectations of physiotherapy and include only those factors and questions that seem most fitting for the physiotherapy profession. Nevertheless, athletes' reluctance for different items may be due to the strong preconception of physiotherapy as a predominately physical domain. Athletes may be unaware of the physiotherapist's role in psychological rehabilitation. From the fact that Finnish athletes reported neutral expectations for confrontation or empathy from the physiotherapist, researchers might think that, once given the opportunity to reflect on the role of physiotherapists, athletes could expect psychological support from physiotherapists. Thus, researchers should be mindful not to exclude too many items that only those items, which reinforce the preconceptions of physiotherapy, remain. Finally, there may have been differences in the culture surrounding physiotherapy between Finland and the U.S.A., which inevitably resulted in the forming of different subscales. Future research would be required for a more comprehensive explanation of the differences in underlying constructs.

8.2 Finnish Athletes' Expectations of Physiotherapy

The findings of this study state that Finnish athletes have moderately high expectations for all 11 dimensions. The mean scores for all the 11 factors were higher than 4 (neither agree or disagree) in a 7-point Likert scale, indicating that Finnish athletes have at least a moderate expectation to be personally committed in the physiotherapy process, for facilitative conditions, physiotherapist expertise, and positive physiotherapy outcomes. Among the various subscales of client expectations, Finnish athletes reported the highest expectations for directiveness (e.g., I expect the sport injury rehabilitation physiotherapist to explain what's wrong, tell me what to do) and genuineness (e.g., I expect the sport injury rehabilitation physiotherapist to be honest with me, respect me as a person) from the physiotherapist, and high expectations for physiotherapy outcomes (e.g., I expect to get a better understanding of the injury and myself, become better able to help myself in the future). High expectations for such items can be seen to indicate athletes' expectations for accurate informational support and expertise from the physiotherapist. These findings are in line with results from previous studies. Earlier research on athletes' perspectives of physiotherapists repeatedly found that athletes generally expected physiotherapists to provide informational support that helps shape

their expectations about their injury and subsequent rehabilitation process. Correlations with realism items to work with the physiotherapist in setting rehabilitation goals can be seen to support the belief that athletes with expectations for directiveness, genuineness, and openness are anticipating information and guidance from the physiotherapist. According to Ermler and Tomas (1990, as cited in Washington-Lofgren et al., 2004), because sport injuries can make athletes "feel powerless and dependent" (p. 94), education of the injury and rehabilitation "gives athletes a greater sense of control" (p. 95). Thus, "informational support and empathy from the ATC are critical in the athlete's adherence to rehabilitation programs" (Fisher, Domm, & Wuest, 1988; Fisher & Hoisington, 1993, as cited in Washington-Lofgren et al., 2004, p. 95). Moreover, DePalma & DePalma (1989, as cited in Washington-Lofgren et al., 2004) assert "educating the athlete regarding what is expected relative to the injury may in itself reduce the athlete's anxiety by eliminating the fear of the unknown" (p. 95).

Research in similar helping professions, such as general physiotherapy or counseling also cites the importance of developing realistic expectations in service delivery. A study in general physiotherapy found that patients' dissatisfaction in treatment or recovery outcomes have been, in part, attributed to unrealistic expectations (Dowswell, Dowswell, Lawler, Green, & Young, 2002). Providing patients with appropriate information about the injury in a timely manner was found to assist patients in developing 'realistic expectations', which lead to higher satisfaction of their recovery (Clark & Smith, 1998 as cited in Dowswell et al., 2002, pp. 361-362). Thus, expectations are seen as influencing clients' treatment satisfaction, which is identified as a psychosocial recovery outcome (Brewer, Andersen, & Van Raalte, 2002; Brewer, 2010a). Furthermore, studies in counseling relationships have found that client expectations not only influence the counseling process and outcome, but also their help seeking source and tendencies (Tinsley, 1994). Negative outcomes such as conflict or termination may occur if clients' and counselors' expectations about the counseling process are not aligned (Martin et al., 2001). These results suggest that clients' expectations of the counseling process will influence their subsequent behavioral responses, such as their adherence to counseling or the use or disuse of social support. As sport physiotherapy is a helping profession as well, it seems plausible that research findings are consistent with similar professions of general physiotherapy and counseling. Although reasons for why Finnish athletes had high expectations for

informational support or genuineness from physiotherapists have not been measured in the current study, from previous research findings, it seems reasonable to assume that athletes expect informational support and expertise from physiotherapists as it will lead to multiple positive treatment outcomes.

No differences in expectations were reported among different genders, levels of competition, injury types, or previous experience in physiotherapy, but previous experience using MST in rehabilitation was found to moderate athletes' expectations for physiotherapy outcomes. Athletes with previous MST experience had higher expectations for physiotherapy outcomes than those who had not. This finding supports propositions of Wiese-Bjornstal et al.'s integrated model (1998) that personal factors such as individual differences in psychological skills can influence athletes' cognitive appraisal of injury and rehabilitation such as their expectations. Additional research, however, is needed for an accurate explanation for why previous experience in MST influences athletes' expectations.

Additionally, Finnish athletes reported neutral to moderate expectations for accepting, nurturing, or empathetic characteristics from the physiotherapist. Acceptance, attractiveness, empathy, confrontation, and nurturance factors can be seen as similar to physiotherapists' provision of listening and emotional support through facilitative physiotherapist qualities. Moderate expectations for accommodating physiotherapy characteristics can also be seen as consistent with previous findings. Athletes from earlier studies have reported mixed responses on receiving emotional support and challenges from physiotherapists. While athletes from Robins and Rosenfeld (2001) and Arvinen-Barrow et al. (under review) responded that emotional challenge and support was required from the physiotherapists, Washington-Lofgren et al.'s (2004) survey group reported almost never considering the physiotherapist as assistance for their emotional coping. These varied responses may, again, be due to the fact that physiotherapy has a traditional emphasis on the service content of physical assistance, rather than on the process of service delivery. Because clients may be unaware of the facilitative characteristics from their physiotherapist, based on past experience, it is possible that athletes reported moderate expectations for such physiotherapist characteristics. Nevertheless, it is noteworthy that athletes reported a neutral to moderate expectation for facilitative conditions. The fact that athletes hold some

expectations for positive physiotherapist characteristics implies the need for physiotherapists to recognize and prepare to provide these conditions when necessary. Moreover, expectations for facilitative conditions correlated with realism items to use psychological interventions during treatment, such as use of positive self-talk or social support from athletes with similar injuries. Especially, expectations for confrontation or nurturance had moderately high correlations. If these findings were to be replicated, from a practical standpoint, expectations for facilitative conditions could be considered an indicator of an athlete's openness to incorporate psychological rehabilitation in physiotherapy. Such findings would emphasize the suggestion for physiotherapists to receive psychological skills training to be prepared to meet athletes' needs. This suggestion, however, would need to be further researched. "Moreover, the interpretation of scores as low, moderately high, and extremely high must be approached with caution, given the ordinal nature of the scales. The establishment of norms for the scales and factor scores would be advantageous in this regard" (Tinsley et al., 1980, p. 567).

Another interesting finding from the Finnish sample on facilitative conditions is the gender difference in athletes' expectations for empathy and confrontation. Although both males and females had low to neutral expectations for empathy and confrontation from physiotherapists, males had higher expectations than females for both conditions. These findings contradict Clement et al.'s (under review) results with American athletes where male athletes had lower expectations for facilitative conditions from the physiotherapist than female athletes. Moreover, competition level moderated athletes' expectations for nurturance, with professional athletes having higher expectations for nurturance than recreational or national level athletes. Previous experience using MST in injury rehabilitation also moderated athletes' expectations for nurturance. Athletes with previous experience in incorporating MST in physiotherapy had higher expectations for nurturance than those who had never tried MST. These results also support the integrated model's description that situational factors, such as level of competition or personal differences in knowledge of psychological skills influence athletes' cognition (expectations) of their injury and rehabilitation experience. The reason for moderating effects could be that because professional athletes have more at stake, it causes them to take psychological support more seriously than athletes competing at lower levels. Additionally, researchers can speculate that those who have experience receiving psychological rehabilitation are more open to psychological

support from others than those who have no previous experience. Nevertheless, these speculations would need further examination.

Furthermore, researchers need to consider that the most frequent findings from previous research were that athletes expected listening support, task appreciation, and task challenge from physiotherapists. Nevertheless, the EAAT questionnaire did not include items measuring expectations for the physiotherapist's provision of such types of social support. This may be the reason that athletes did not report a higher expectation for supportive physiotherapist characteristics. It would be worthy to examine whether Finnish athletes would have higher expectations for facilitative conditions if the EAAT questionnaire included descriptions of listening support or providing challenging but relevant tasks. Researchers may want to restructure the EAAT questionnaire to include the types of social support that have been proved significant in previous studies for a comprehensive understanding of athletes' expectations for facilitative conditions in physiotherapy.

Finally, when considering factors such as responsibility, motivation, and openness to be representing athletes' personal commitment to physiotherapy and rehabilitation, Finnish athletes reported moderately high expectations to be personally committed in physiotherapy sessions. Research on the dimensions of personal motivation and responsibility has been scarce in physiotherapy. Earlier studies have mainly focused on the characteristics and behaviors of the physiotherapists than the attitudes and actions of the clients. Consistent with Clement et al.'s findings, Finnish female athletes had higher expectations to be personally motivated in physiotherapy than male athletes. Interestingly, expectation for motivation was the only factor influenced by moderators. In addition to gender differences, there were differences in motivation expectancies according to the type of injury athletes experienced. Athletes with acute injuries reported to have higher expectations to be personally motivated in physiotherapy than those with chronic injuries. Moreover, previous MST experience also influenced athletes' expectations for motivation. Athletes who had experience incorporating MST in rehabilitation had higher expectations to be personally motivated in physiotherapy than those who had never used MST before. In line with the previously identified moderators, this can be seen as consistent with propositions from the integrated model that personal factors such as injury type influence athletes' response to sport injury and

rehabilitation. Nonetheless, the reason for why injury type or previous experience in psychological skills influences athlete cognition has not been studied; thus, further research on the reasons why personal and situational factors influence an athlete's response to injury and rehabilitation is called for.

8.3 Limitations

There are several limitations in this study. First of all, the EAAT questionnaire is a newly developed questionnaire that has been used in one other study. Thus, the psychometrics of the scale needs to be improved with additional research. Another limitation may have been that, as the researcher was not a Finnish speaker, there were imperfections in the readability and the fluency of the translation. The researcher could not check for any final improvements or adjustments, which may have lead to the neglect of small details such as comma placements or better sentence structure that could improve the readability for participants. A researcher that speaks Finnish may have been able to compose a more polished translation of the EAAT questionnaire.

Furthermore, study participants made numerous comments about the length of the questionnaire. The questionnaire consisted of 66 items, a demographic sheet, and a feedback form, which took athletes approximately 15 to 30 minutes to complete. Many participants complained that the questionnaire was too long and advised researchers to develop a briefer version as they found it difficult to focus on the questionnaire for such an extended period of time. Moreover, as previously mentioned, because the questionnaire included items which athletes thought of as irrelevant for the context of physiotherapy, athletes seemed to perceive the questionnaire as unnecessarily long. This may have caused the athletes to take the questionnaire less seriously and skim through the questionnaire quickly, simply to complete the scale. If the questionnaire were to be more concise and relevant, the athletes could be more concentrated on answering the questions allowing researchers to obtain more honest and suiting information. Accordingly, researchers of future studies are advised to review the questionnaire and only include the most relevant questions to acquire sincere and meaningful data.

Another limitation of the study was the access to Finnish participants. Being a foreigner, the author's access to a Finnish athlete population was extremely limited. Therefore, a non-random sample was obtained through personal contacts and the

assistance of the sport faculty. Although the study aimed for a heterogeneous sample, there was no control over the sample's nature (e.g., age, gender, sporting type). The data collection process also lacked consistency as conditions had to be modified to fit each team or athlete's needs. Such extraneous variables may have influenced data collection, which may have had an effect on the results. Moreover, as access to Finnish athletes was limited, the study's definition of an "athlete" was more inclusive than traditional descriptions. For the purpose of this study, an athlete was defined as a person who competes in a sport, either at a recreational or competitive level, and perceives himself or herself as an athlete. Despite broadening the definition of an athlete, results showed no significant difference in the expectations between athletes and nonathletes. This may be due to the fact the non-athletes were sport students and many were former athletes.

Finally, a possible limitation could be how the items are structured in the EAAT questionnaire. The EAAT scale did not include reverse scoring items, which could have created a response set or bias of the "yeah saying" where participants continue to response in a similar manner because all questionnaire items are positively stated (Coolican, 2004, p. 179). The five participants who were excluded from the final sample were removed because their response pattern seemed subject to the "yeah saying". Thus, it could be beneficial to reverse score the items indicating client passivity to limit such response biases. Moreover, one suggestion from collaborating researchers was to score the empathy items in reverse. This is because high expectations for the empathy items in the EAAT scale could indicate that the athlete has unrealistic expectations. High scores can be seen to demonstrate an unreasonable expectation for the physiotherapist to have magical powers in understanding the athlete, as it is unreasonable to expect physiotherapists to understand their clients even when the athlete has not communicated anything verbally. As unrealistic expectations could potentially have negative influences to the physiotherapy process and outcome, it is advised that the empathy items either be reversed scored or the wording of the items be modified.

8.4 Implications

This study was significant as the validation of a reliable measurement could open the possibility for additional quantitative studies, which could enable researchers to gain a broader and more general understanding of the topic. Although the EAAT questionnaire

did not result in the same factors as in the previous study of Clement et al. (under review), the process of adapting the questionnaire into another language brought many areas for improvement to researchers' attention. With the suggestions of this study, the EAAT questionnaire has potential to become the questionnaire that allows researchers to learn more of athletes' expectations about physiotherapy in sport injury rehabilitation. Furthermore, this study contributes to researchers and practitioners' understanding of how situational factors, such as the sport medicine team and rehabilitation environment, moderate and influence the rehabilitation outcome. The results also support existing knowledge and reemphasize the significance of physiotherapists' role in the psychological rehabilitation of sport injuries. The findings of this study emphasize the need for refining the physiotherapist's education program to include psychological training. Moreover, the results stress the importance of developing practical psychological interventions for physiotherapists such as a psychological skills training workshop that help them better meet athletes' needs.

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APPENDIXES

1 Information sheet for athletes, English
1.1 Information sheet for athletes, Finnish
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Appendix 1

Information sheet for athletes, English

Information for athletes

Invitation to participate in a research study: Athletes' Expectations of Sport Injury Rehabilitation and Physiotherapy

What is the study about?

The main aim of this study is to examine athletes' expectations of physiotherapy in the rehabilitation of a sport injury. In the long term, we hope to gain a better understanding of the process of sport injury rehabilitation and improve physiotherapy experiences for athletes. This research is in collaboration with KIHU and the Faculty of Sport Sciences in the University of Jyväskylä.

What will your participation involve?

If you agree to volunteer for the study, you will be asked to complete a questionnaire. Completing the questionnaire should take approximately 15-30 minutes of your time. All of your responses will be kept confidential. You may choose not to participate, refuse to answer any questions, or withdraw from the study at any time. By participating in this study, you are also agreeing that your results may be used for scientific purposes, including publication in scientific and sport or physiotherapy specific journals, as long as your anonymity is maintained. There are no known risks associated with participation in this research. If you would like to receive any additional information concerning this study, please do not hesitate to contact us.

Thank you.

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Sport and Exercise Psychology	Department of Sport Sciences	KIHU
Department of Sport Sciences	University of Jyväskylä	
University of Jyväskylä		

This letter is yours to keep.

Appendix 1.1

Information sheet for athletes, Finnish

Tietoja urheilijoille

Kutsu osallistua tutkimukseen: Urheilijoiden odotuksia urheiluvammojen kuntoutuksesta ja fysioterapiasta

Mitä tutkimus käsittelee?

Tutkimuksen tavoitteena on selvittää urheilijoiden odotuksia urheiluvammojen kuntoutukseen liittyvästä fysioterapiasta. Pitkän aikavälin tavoitteena on saada tietoa urheiluvammojen kuntoutusprosessista ja parantaa urheilijoiden kokemuksia fysioterapiasta. Tutkimusta tehdään Kilpa- ja huippu-urheilun tutkimuskeskuksen ja Jyväskylän yliopiston liikuntatieteiden laitoksen yhteistyönä.

Mitä osallistumiseen kuuluu?

Mikäli lähdet mukaan tutkimukseen sinua pyydetään täyttämään kyselylomake. Sen täyttäminen kestää keskimäärin noin 15-30 minuuttia. Kaikkia vastauksiasi käsitellään luottamuksellisesti. Voit valita, että et osallistu, et vastaa johonkin kysymykseen tai vetäydyt tutkimuksesta milloin vain. Osallistumalla tutkimukseen annat luvan vastaustesi käyttöön tieteellisiin tarkoituksiin, kuten julkaisemiseen tieteellisissä tai urheiluun tai fysioterapiaan liittyvissä julkaisuissa niin, että henkilöllisyytesi ei missään vaiheessa paljastu. Tutkimukseen osallistumiseen ei liity mitään tiedossa olevia riskejä. Annamme mielellään tutkimukseen liittyen lisätietoja.

Kiittäen,

Sae-Mi Lee	Taru Lintunen	Tommi Sipari
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Sport and Exercise Psychology	Department of Sport Sciences	KIHU
Department of Sport Sciences	University of Jyväskylä	
University of Jyväskylä		

Voit pitää tämän tiedotteen.

Appendix 2

Informed consent form, English

Consent Form

Athletes' Expectations of Sport Injury Rehabilitation and Physiotherapy

I ……. have read the accompanying information sheet and have had the opportunity to discuss the study with a representative. I agree to take part in the research, with the knowledge that I can withdraw at any time, without giving a reason. Withdrawal from the study will not in any way affect future treatment or training. My participation in this study is voluntary.

Athlete's signature ……..

Date ..……

Appendix 2.1

Informed consent form, Finnish

UNIVERSITY OF JYVÄSKYLÄ

KIHU

Suostumuslomake

Urheilijoiden odotuksia urheiluvammojen kuntoutuksesta ja fysioterapiasta

Minä_____olen lukenut tutkimusta esittelevän lomakkeen ja minulla on ollut mahdollisuus keskustella tutkimuksen edustajan kanssa. Suostun osallistumaan tutkimukseen tietäen, että voin milloin tahansa, syytä kertomatta vetäytyä pois tutkimuksesta. Vetäytyminen tutkimuksesta ei tule mitenkään vaikuttamaan kohteluuni, jatkooni tai harjoitteluuni. Vastaan kaikkiin kysymyksiin omasta halustani.

Tutkittavan alekirjoitus ……...

Päivämäärä ……..….

Appendix 3
Expectations About Athletic Training (EAAT) questionnaire, English

Expectation about Sport Injury Rehabilitation Physiotherapy (EASIRP) Questionnaire

Modified from the
Expectations about Sport Psychology Consulting (EASPC; Martin et al., 2001)

DIRECTIONS
As an athlete, imagine that you are injured and about to see a sport physiotherapist for your first visit. We would like to know just what you think about visiting a physiotherapist for sports injury rehabilitation. On the following pages you will find a number of statements about physiotherapy and mental training. In each instance you are to indicate your level of agreement regarding what you expect the physiotherapy visit to be like. The rating scale you are being asked to use is printed at the top of each page. Rate each question on the ANSWER SHEET provided.

THANK YOU.

INDICATE YOUR LEVEL OF AGREEMENT WITH EACH OF THE STATEMENTS BY CIRCLING THE NUMBER THAT CORRESPONDS TO YOUR FEELINGS TOWARD EACH STATEMENT

ANSWER THE FOLLOWING QUESTIONS USING THE SCALE BELOW

1	2	3	4	5	6	7
Strongly Disagree	**Disagree**	**Moderately Disagree**	**Neutral**	**Moderately Agree**	**Agree**	**Strongly Agree**

I EXPECT TO...

1. Take psychological tests. **1 2 3 4 5 6 7**
2. Like the physiotherapist. **1 2 3 4 5 6 7**
3. Gain some information about how to solve problems. **1 2 3 4 5 6 7**
4. Openly express my emotions regarding my problems and myself. **1 2 3 4 5 6 7**
5. Take responsibility for making my own decisions. **1 2 3 4 5 6 7**
6. Talk about my present concerns. **1 2 3 4 5 6 7**

I EXPECT TO...

7. Get practice in relating openly and honestly to another person within the physiotherapist-athlete relationship. **1 2 3 4 5 6 7**
8. Enjoy my visit with the physiotherapist. **1 2 3 4 5 6 7**
9. Practice some things I need to learn. **1 2 3 4 5 6 7**
10. Get a better understanding of the injury and myself. **1 2 3 4 5 6 7**
11. Complete physiological assessments. **1 2 3 4 5 6 7**
12. Continue the physiotherapy visits for at least a few weeks, even if at first I am not sure it will help. **1 2 3 4 5 6 7**

I EXPECT TO...

13. See the physiotherapist for more than three visits. **1 2 3 4 5 6 7**
14. Never need to visit the physiotherapist again. **1 2 3 4 5 6 7**
15. Enjoy being with the physiotherapist. **1 2 3 4 5 6 7**
16. Continue to visit the physiotherapist even though it may be painful or unpleasant at times. **1 2 3 4 5 6 7**
17. Contribute as much as I can in terms of expressing my feelings and discussing them. **1 2 3 4 5 6 7**
18. Work with the physiotherapist in setting my rehabilitation goals. **1 2 3 4 5 6 7**

I EXPECT TO...

19. Find that the rehabilitation relationship will help the physiotherapist and me in identifying problems on which I need to work. **1 2 3 4 5 6 7**
20. Become better able to help myself in the future. **1 2 3 4 5 6 7**
21. Feel safe enough with the physiotherapist to really say how I feel. **1 2 3 4 5 6 7**
22. Improve my relationships with others. **1 2 3 4 5 6 7**
23. Ask the physiotherapist to explain what he or she means whenever I do not understand something that is said. **1 2 3 4 5 6 7**
24. Work on my concerns outside the physiotherapist visit. **1 2 3 4 5 6 7**

THE FOLLOWING QUESTIONS CONCERN YOUR EXPECTATIONS ABOUT THE SPORT PHYSIOTHERAPY VISIT.

INDICATE YOUR LEVEL OF AGREEMENT WITH EACH OF THE STATEMENTS BY CIRCLING THE NUMBER THAT CORRESPONDS TO YOUR FEELINGS TOWARD EACH STATEMENT

ANSWER THE FOLLOWING QUESTIONS USING THE SCALE BELOW

1	2	3	4	5	6	7
Strongly Disagree	**Disagree**	**Moderately Disagree**	**Neutral**	**Moderately Agree**	**Agree**	**Strongly Agree**

I EXPECT THE SPORT INJURY REHABILITATION PHYSIOTHERAPIST TO...

25. Explain what's wrong. **1 2 3 4 5 6 7**
26. Help me identify and label my feelings so I can better them. **1 2 3 4 5 6 7**
27. Tell me what to do. **1 2 3 4 5 6 7**
28. Know how I feel even when I cannot say quite what I mean. **1 2 3 4 5 6 7**
29. Know how to help me. **1 2 3 4 5 6 7**

I EXPECT THE SPORT INJURY REHABILITATION PHYSIOTHERAPIST TO...

30. Help me identify particular situations where I have problems. **1 2 3 4 5 6 7**
31. Give encouragement and reassurance. **1 2 3 4 5 6 7**
32. Help me to know how I am feeling by putting my feelings into words for me. **1 2 3 4 5 6 7**
33. Be a "real" person and not just a person doing a job. **1 2 3 4 5 6 7**
34. Help me discover what particular aspects of my behavior are relevant to my problems. **1 2 3 4 5 6 7**

I EXPECT THE SPORT INJURY REHABILITATION PHYSIOTHERAPIST TO...

35. Inspire confidence and trust. **1 2 3 4 5 6 7**
36. Frequently offer me advice. **1 2 3 4 5 6 7**
37. Be honest with me. **1 2 3 4 5 6 7**
38. Be someone who can be counted on. **1 2 3 4 5 6 7**
39. Be friendly and warm towards me. **1 2 3 4 5 6 7**

I EXPECT THE SPORT INJURY REHABILITATION PHYSIOTHERAPIST TO...

40. Help me solve my problems. **1 2 3 4 5 6 7**
41. Discuss his or her attitudes and relate them to my problem. **1 2 3 4 5 6 7**
42. Give me support. **1 2 3 4 5 6 7**
43. Help me decide what mental plan is best. **1 2 3 4 5 6 7**
44. Fix my problem(s). **1 2 3 4 5 6 7**

THE FOLLOWING QUESTIONS CONCERN YOUR EXPECTATIONS ABOUT THE SPORT PHYSIOTHERAPY VISIT.

INDICATE YOUR LEVEL OF AGREEMENT WITH EACH OF THE STATEMENTS BY CIRCLING THE NUMBER THAT CORRESPONDS TO YOUR FEELINGS TOWARD EACH STATEMENT

1	2	3	4	5	6	7
Strongly Disagree	**Disagree**	**Moderately Disagree**	**Neutral**	**Moderately Agree**	**Agree**	**Strongly Agree**

I EXPECT THE SPORT INJURY REHABILITATION PHYSIOTHERAPIST TO...

45. Know how I feel at times, without my having to speak. **1 2 3 4 5 6 7**
46. Do most of the talking. **1 2 3 4 5 6 7**
47. Respect me as a person. **1 2 3 4 5 6 7**
48. Help me to regain my pre-injury level of fitness. **1 2 3 4 5 6 7**
49. Discuss his or her experiences and relates them to my problems. **1 2 3 4 5 6 7**

I EXPECT THE SPORT INJURY REHABILITATION PHYSIOTHERAPIST TO...

50. Praise me when I show improvement. **1 2 3 4 5 6 7**
51. Make me face up to the differences between what I say and how I behave. **1 2 3 4 5 6 7**
52. Set clear, specific, and measurable goals for rehabilitation. **1 2 3 4 5 6 7**
53. Talk freely about himself or herself. **1 2 3 4 5 6 7**
54. Have no trouble getting along with people. **1 2 3 4 5 6 7**

I EXPECT THE SPORT INJURY REHABILITATION PHYSIOTHERAPIST TO...

55. To use psychological interventions (e.g., imagery, relaxation) during physiotherapy treatment. **1 2 3 4 5 6 7**
56. Like me. **1 2 3 4 5 6 7**
57. Be someone I can really trust. **1 2 3 4 5 6 7**
58. Like me in spite of my weaknesses or strengths that he or she discovers about me. **1 2 3 4 5 6 7**
59. Make me face up to the differences between how I see myself and how I am seen by others. **1 2 3 4 5 6 7**
60. Be someone who is calm and easygoing. **1 2 3 4 5 6 7**

I EXPECT THE SPORT INJURY REHABILITATION PHYSIOTHERAPIST TO...

61. Assist me on how to use positive self talk. **1 2 3 4 5 6 7**
62. Point out to me the differences between what I am and what I want to be. **1 2 3 4 5 6 7**
63. Just give me information. **1 2 3 4 5 6 7**
64. Get along well in the world. **1 2 3 4 5 6 7**
65. Be able to introduce me to other athletes who have had and are now healed from a similar injury. **1 2 3 4 5 6 7**
66. Motivate me to attend physiotherapy sessions. **1 2 3 4 5 6 7**

Appendix 3.1
Expectations About Athletic Training (EAAT) questionnaire, Finnish

Urheilijoiden odotuksia urheiluvammojen kuntoutuksesta ja fysioterapiasta -kysely

Mukautettu kyselystä Expectations about Sport Psychology Consulting (EASPC; Martin et al., 2001)

OHJEET

Kuvittele, että olet loukkaantunut urheillessasi ja olet menossa tapaamaan fysioterapeuttia ensimmäistä kertaa. Haluaisimme selvittää, mitä ajattelet urheiluvamman fysioterapeuttisesta kuntoutuksesta. Seuraavilla sivuilla on väittämiä fysioterapiasta ja psyykkisestä harjoittelusta. Arvioi jokaisen kysymyksen kohdalla miten väittämä kuvaa sinun odotuksiasi fysioterapiasta. Arviointiasteikko on jokaisen sivun ylälaidassa. Merkitse vastauksesi ympyröimällä odotuksiasi vastaava numero.

KIITOS.

ARVIOI JOKAISEN VÄITTÄMÄN SOPIVUUTTA SINUUN YMPYRÖIMÄLLÄ NUMERO JOKA VASTAA OMAA KÄSITYSTÄSI

VASTAA SEURAAVIIN KYSYMYKSIIN KÄYTTÄEN ALLA OLEVAA ASTEIKKOA

1	2	3	4	5	6	7
Vahvasti eri mieltä	**Eri mieltä**	**Jonkin verran eri mieltä**	**Ei kumpikaan**	**Jonkin verran samaa mieltä**	**Samaa mieltä**	**Vahvasti samaa mieltä**

ODOTAN…

1. Tekeväni psykologisia testejä. **1 2 3 4 5 6 7**
2. Pitäväni fysioterapeutista. **1 2 3 4 5 6 7**
3. Saavani tietoa siitä miten ratkaista ongelmia. **1 2 3 4 5 6 7**
4. Avoimesti näyttäväni tunteitani tilanteeseeni/vammaani ja itseeni liittyen. **1 2 3 4 5 6 7**
5. Ottavani vastuun omien valintojen tekemisestä. **1 2 3 4 5 6 7**
6. Puhuvani tämän hetkisistä huolistani. **1 2 3 4 5 6 7**

ODOTAN…

7. Saavani harjoitusta avoimesta ja rehellisestä yhteydestä toiseen ihmiseen. **1 2 3 4 5 6 7**
8. Nauttivani käynneistäni fysioterapeutilla. **1 2 3 4 5 6 7**
9. Harjoittelevani asioita joita minun pitää oppia. **1 2 3 4 5 6 7**
10. Saavani paremman käsityksen urheiluvammasta ja itsestäni. **1 2 3 4 5 6 7**
11. Suorittavani fyysisiä tehtäviä. **1 2 3 4 5 6 7**
12. Jatkavani fysioterapiakäyntejä ainakin muutamia viikkoja, vaikka aluksi en olisikaan varma onko niistä apua. **1 2 3 4 5 6 7**

ODOTAN…

13. Tapaavani fysioterapeutin useammin kuin kolme kertaa. **1 2 3 4 5 6 7**
14. Ettei fysioterapeuttia tarvitse tavata enää koskaan. **1 2 3 4 5 6 7**
15. Nauttivani fysioterapeutin luona olosta. **1 2 3 4 5 6 7**
16. Jatkavani fysioterapeutilla käyntejä vaikka se voi olla toisinaan kivuliasta tai epämiellyttävää. **1 2 3 4 5 6 7**
17. Osallistuvani niin paljon kuin voin osoittamalla tunteitani ja puhumalla niistä. **1 2 3 4 5 6 7**
18. Asettavani tavoitteitani kuntoutukselle fysioterapeutin kanssa. **1 2 3 4 5 6 7**

ODOTAN…

19. Huomaavani, että kuntoutukseen kuuluva yhteistyö auttaa fysioterapeuttia ja minua tunnistamaan erilaisia ongelmia ja tilanteita, joiden parissa minun on työskenneltävä. **1 2 3 4 5 6 7**
20. Tulevani paremmaksi auttamaan itseäni tulevaisuudessa. **1 2 3 4 5 6 7**
21. Tuntevani oloni riittävän turvalliseksi fysioterapeutin kanssa sanoakseni miltä minusta todella tuntuu. **1 2 3 4 5 6 7**
22. Kehittäväni suhteitani toisiin ihmisiin. **1 2 3 4 5 6 7**
23. Pyytäväni fysioterapeuttia selittämään mitä hän tarkoittaa aina kun en ymmärrä jotain mitä on sanottu. **1 2 3 4 5 6 7**
24. Käsitteleväni huoliani fysioterapiakäyntien välillä. **1 2 3 4 5 6 7**

SEURAAVAT KYSYMYKSET LIITTYVÄT ODOTUKSIISI URHEILUFYSIOTERAPEUTILLA KÄYNTIIN.

ARVIOI JOKAISEN VÄITTÄMÄN SOPIVUUTTA SINUUN YMPYRÖIMÄLLÄ NUMERO JOKA VASTAA OMAA KÄSITYSTÄSI

VASTAA SEURAAVIIN KYSYMYKSIIN KÄYTTÄEN ALLA OLEVAA ASTEIKKOA

1	2	3	4	5	6	7
Vahvasti eri mieltä	Eri mieltä	Jonkin verran eri mieltä	Ei kumpikaan	Jonkin verran samaa mieltä	Samaa mieltä	Vahvasti samaa mieltä

ODOTAN URHELUVAMMAN KUNTOUTUKSESTA VASTAAVAN FYSIOTERAPEUTIN...

25. Selittävän missä vika on. **1 2 3 4 5 6 7**
26. Auttavan minua tunnistamaan ja luokittelemaan tunteitani siten, että voin korjata niitä. **1 2 3 4 5 6 7**
27. Kertovan minulle mitä tehdä. **1 2 3 4 5 6 7**
28. Tietävän miltä minusta tuntuu silloinkin kun en osaa sanoa aivan mitä tarkoitan. **1 2 3 4 5 6 7**
29. Tietävän miten auttaa minua. **1 2 3 4 5 6 7**

ODOTAN URHELUVAMMAN KUNTOUTUKSESTA VASTAAVAN FYSIOTERAPEUTIN...

30. Auttavan minua tunnistamaan tietyt tilanteet joissa minulla on vaikeuksia/ ongelmia. **1 2 3 4 5 6 7**
31. Antavan rohkaisua ja vahvistusta. **1 2 3 4 5 6 7**
32. Auttavan minua tietämään miltä minusta tuntuu asettamalla tunteitani sanoiksi puolestani. **1 2 3 4 5 6 7**
33. Olevan "oikea" ihminen eikä vain työtään suorittava työntekijä. **1 2 3 4 5 6 7**
34. Auttavan minua löytämään mitkä tietyt tekijät käyttäytymisessäni ovat oleellisia tilanteeni/vammani kannalta. **1 2 3 4 5 6 7**

ODOTAN URHELUVAMMAN KUNTOUTUKSESTA VASTAAVAN FYSIOTERAPEUTIN...

35. Nostattavan uskoa ja luottamusta. **1 2 3 4 5 6 7**
36. Tarjoavan minulle usein neuvoja. **1 2 3 4 5 6 7**
37. Olevan minulle rehellinen. **1 2 3 4 5 6 7**
38. Olevan joku johon voi luottaa. **1 2 3 4 5 6 7**
39. Olevan ystävällinen ja lämmin minua kohtaan. **1 2 3 4 5 6 7**

ODOTAN URHELUVAMMAN KUNTOUTUKSESTA VASTAAVAN FYSIOTERAPEUTIN...

40. Auttavan minua ratkaisemaan ongelmani. **1 2 3 4 5 6 7**
41. Keskustelevan asenteistaan ja liittävän ne minun tilanteeseeni/ vammaani. **1 2 3 4 5 6 7**
42. Tukevan minua. **1 2 3 4 5 6 7**
43. Auttavan minua valitsemaan parhaan ajattelutavan. **1 2 3 4 5 6 7**
44. Hoitavan vammani. **1 2 3 4 5 6 7**

SEURAAVAT KYSYMYKSET LIITTYVÄT ODOTUKSIISI URHEILUFYSIOTERAPEUTILLA KÄYNTIIN.

ARVIOI JOKAISEN VÄITTÄMÄN SOPIVUUTTA SINUUN YMPYRÖIMÄLLÄ NUMERO JOKA VASTAA OMAA KÄSITYSTÄSI

ODOTAN URHELUVAMMAN KUNTOUTUKSESTA VASTAAVAN FYSIOTERAPEUTIN...

45. Tietävän ajoittain miltä minusta tuntuu, ilman että minun tarvitsee puhua. **1 2 3 4 5 6 7**
46. Pääosin vastaavan puhumisesta. **1 2 3 4 5 6 7**
47. Kunnioittavan minua ihmisenä. **1 2 3 4 5 6 7**
48. Auttavan minua palaamaan samaan kuntoon kuin ennen loukkaantumista. **1 2 3 4 5 6 7**
49. Keskustelevan kokemuksistaan ja liittävän ne minun tilanteeseeni/ vammaani. **1 2 3 4 5 6 7**

ODOTAN URHELUVAMMAN KUNTOUTUKSESTA VASTAAVAN FYSIOTERAPEUTIN...

50. Ylistävän minua kun osoitan kehittyväni. **1 2 3 4 5 6 7**
51. Laittavan minut kohtaamaan eroavuuksia sen välillä mitä sanon ja miten käyttäydyn. **1 2 3 4 5 6 7**
52. Asettavan selkeitä, spesifejä ja mitattavissa olevia tavoitteita kuntoutukselle. **1 2 3 4 5 6 7**
53. Puhuvan vapaasti itsestään. **1 2 3 4 5 6 7**
54. Tulevan hyvin ihmisten kanssa toimeen. **1 2 3 4 5 6 7**

ODOTAN URHELUVAMMAN KUNTOUTUKSESTA VASTAAVAN FYSIOTERAPEUTIN...

55. Käyttävän psykologisia hoitokeinoja (esim. mielikuvia, rentoutusta) fysioterapiahoidon aikana. **1 2 3 4 5 6 7**
56. Pitävän minusta. **1 2 3 4 5 6 7**
57. Olevan joku johon voin todella luottaa. **1 2 3 4 5 6 7**
58. Pitävän minusta huolimatta heikkouksistani tai vahvuuksistani joita hän löytää minusta. **1 2 3 4 5 6 7**
59. Laittavan minut kohtaamaan erot sen välillä millaisena itse näen itseni ja millaisena toiset näkevät minut. **1 2 3 4 5 6 7**
60. Olevan rauhallinen ja rento henkilö. **1 2 3 4 5 6 7**

ODOTAN URHELUVAMMAN KUNTOUTUKSESTA VASTAAVAN FYSIOTERAPEUTIN...

61. Auttavan minua käyttämään myönteistä itsepuhelua. **1 2 3 4 5 6 7**
62. Osoittavan minulle eroavuuksia sen välillä mitä olen ja miksi haluaisin tulla. **1 2 3 4 5 6 7**
63. Ainoastaan antavan minulle tietoa. **1 2 3 4 5 6 7**
64. Tulevan hyvin toimeen. **1 2 3 4 5 6 7**
65. Olevan valmis esittelemään minut toisille urheilijoille joilla on ollut samanlainen vamma ja ovat nyt toipuneet. **1 2 3 4 5 6 7**
66. Motivoivan minua osallistumaan fysioterapia käynneille. **1 2 3 4 5 6 7**

Appendix 4
Demographic information, Original

Demographic information

Please answer the following questions about yourself and your involvement in sport.

1. What is your gender?
a. Male
b. Female
c.

2. How old are you? ……..

3. Are you in School? **YES / NO**
a. If yes, what year are you in school?……...
b. If no, what is your highest qualification? …….....

4. What is your level of competition?
a. Recreational
b. College/University
c. County/Regional/State
d. National
e. International
f. Professional

5. What sport (s) are you currently involved in?
……..……
……..……..……...

6. How many years have you been involved in your sport? …….

7. Typically how many hours do you train/week? …….

8. How many sport related injuries have you had?……

9. What type of injuries have you had?
a. Acute (happened suddenly during sport)
b. Chronic (have occurred over time, e.g., overuse injuries)
c. Both

10. How would you classify the severity of MOST of your injuries?
a. Minor injury (prevents participation in practice/competition for up to 8 days)
i. How many? ……..
b. Moderate injury (prevents participation in practice/competition for 8 to 21 days)
i. How many? ……..
c. Severe injury (prevents participation in practice/competition for more than 21 days)
i. How many? ……..

d. Catastrophic injury (e.g., career ending, permanent physical disability)
i. How many? ……..

11. Do you have any past experiences with physiotherapy? YES / NO
a. If yes, how many of your past injuries have required physiotherapy treatment?…….……...

12. Have you ever used mental skills (self-talk, mental imagery, goal setting, relaxation etc.) as part of your sport-injury rehabilitation? YES / NO
a. If, yes, what did you use? ……..……..……..……..……..
b. And did the physiotherapists teach you how to use the skills **YES / NO**

13. IF YES TO # 12, do you believe that the use of mental skills helped you rehabilitate faster or more completely from sport-injury? YES / NO

PLEASE CHECK THAT YOU HAVE ANSWERED ALL THE QUESTIONS.
THANK YOU!

Appendix 4.1
Demographic information, Finnish

Taustatiedot

Vastaa seuraaviin kysymyksiin sinusta ja osallistumisestasi urheiluun.

1. Sukupuolesi?
a. Mies
b. Nainen

2. Kuinka vanha olet? .....

3. Oletko koulussa? **KYLLÄ/ EI**
a. Jos kyllä, monennella luokalla olet? .....
b. Jos et, mikä on koulutuksesi? .....

4. Millä tasolla kilpailet?
a. Harraste
b. Piiri/ Alue
c. Kansallinen (SM)
d. Kansainvälinen
e. Ammattilainen

5. Mitä urheilulajeja harrastat tällä hetkellä?
.....
.....

6. Kuinka monta vuotta olet harrastanut urheilua? .....

7. Kuinka monta tuntia tavallisesti harjoittelet viikossa? .....

8. Kuinka monta urheiluvammaa sinulla on ollut? .....

9. Minkä tyyppisiä vammoja sinulla on ollut?
a. Äkillisiä (sattunut yhtäkkiä urheillessa)
b. Pitkäaikaisia (ilmaantunut ajan myötä, esim. kulumat)
c. Molempia

10. Miten luokittelisit useimpien vammojesi vakavuuden?
a. Lievä vamma (estää osallistumisen harjoituksiin/ kilpailuun korkeintaan 8 päivää)
    i. Kuinka monta? .....
b. Keskivaikea vamma (estää osallistumisen harjoituksiin/ kilpailuun 8 - 21 päivää)
    i. Kuinka monta? .....
c. Vakava vamma (estää osallistumisen harjoituksiin/ kilpailuun enemmän kuin 21 päivää)
    i. Kuinka monta? .....
d. Erittäin vakava vamma (esim. uran loppuminen, pysyvä fyysinen rajoite)

i. Kuinka monta? .....

11. Onko sinulla aiempaa kokemusta fysioterapiasta? KYLLÄ/ EI
a. Jos kyllä, kuinka monta aikaisempaa loukkaantumista on vaatinut fysioterapeuttista hoitoa?
.....

12. Oletko koskaan käyttänyt psyykkisiä keinoja (itsepuhelua, mielikuvaharjoittelua, tavoitteenasettelua, rentoutumista tms.) osana urheiluvammasta kuntoutumista? KYLLÄ/ EI
a. Jos kyllä, mitä menetelmää käytit? .....
b. Opettiko fysioterapeutti sinua käyttämään näitä menetelmiä? **KYLLÄ/ EI**

13. JOS VASTASIT KYLLÄ KYSYMYKSEEN 12, uskotko että psyykkisten keinojen käyttö auttoi sinua kuntoutumaan nopeammin tai kokonaisvaltaisemmin urheiluvammasta? KYLLÄ/ EI

OLE HYVÄ JA TARKISTA, ETTÄ OLET VASTANNUT KAIKKIIN KYSYMYKSIIN. KIITOS!

Appendix 5

Item comprehension sheet, English

ITEM COMPREHENSION OF THE EXPECTATIONS ABOUT SPORT INJURY REHABILITATION PHYSIOTHERAPY (EASIRP) QUESTIONNAIRE

Below are some questions related to the expectation about sport injury rehabilitation physiotherapy questionnaire you have just completed. In order to develop any inventory the researcher must address whether the participants understand the questions, understand the way they should respond to each question and whether they feel the responses available are suitable. This short questionnaire is an opportunity for you to criticize the questionnaire. Your help is appreciated and your answers will be vital in the development of the final EASIRP questionnaire.

1. Did you understand each question on the EASIRP questionnaire? (Circle appropriate answer). **YES/ NO**

a. If **NO** please tick the question(s) you did not understand:

Question 1	☐	Question2	☐	Question 3	☐
Question 4	☐	Question 5	☐	Question 6	☐
Question 7	☐	Question 8	☐	Question 9	☐
Question 10	☐	Question 11	☐	Question 12	☐
Question 13	☐	Question 14	☐	Question 15	☐
Question 16	☐	Question 17	☐	Question 18	☐
Question 19	☐	Question 20	☐	Question 21	☐
Question 22	☐	Question 23	☐	Question 24	☐
Question 25	☐	Question 26	☐	Question 27	☐
Question 28	☐	Question 29	☐	Question 30	☐
Question 31	☐	Question 32	☐	Question 33	☐
Question 34	☐	Question 35	☐	Question 36	☐
Question 37	☐	Question 38	☐	Question 39	☐
Question 40	☐	Question 41	☐	Question 42	☐
Question 43	☐	Question 44	☐	Question 45	☐
Question 46	☐	Question 47	☐	Question 48	☐
Question 49	☐	Question 50	☐	Question 51	☐
Question 52	☐	Question 53	☐	Question 54	☐
Question 55	☐	Question 56	☐	Question 57	☐
Question 58	☐	Question 59	☐	Question 60	☐
Question 61	☐	Question 62	☐	Question 63	☐
Question 64	☐	Question 65	☐	Question 66	☐

b. For any questions you did not understand briefly explain why:

……
……
……

2. Did you understand how to respond to each question? (Circle appropriate answer).
YES/ NO

a. If **NO** briefly explain why:

……

……
……

3. Did you feel that the questions made sense? (Circle appropriate answer).

YES/ NO

a. If **NO** which questions do you feel did not make sense? (Tick the question numbers appropriate).

Question 1		Question2		Question 3	
Question 4		Question 5		Question 6	
Question 7		Question 8		Question 9	
Question 10		Question 11		Question 12	
Question 13		Question 14		Question 15	
Question 16		Question 17		Question 18	
Question 19		Question 20		Question 21	
Question 22		Question 23		Question 24	
Question 25		Question 26		Question 27	
Question 28		Question 29		Question 30	
Question 31		Question 32		Question 33	
Question 34		Question 35		Question 36	
Question 37		Question 38		Question 39	
Question 40		Question 41		Question 42	
Question 43		Question 44		Question 45	
Question 46		Question 47		Question 48	
Question 49		Question 50		Question 51	
Question 52		Question 53		Question 54	
Question 55		Question 56		Question 57	
Question 58		Question 59		Question 60	
Question 61		Question 62		Question 63	
Question 64		Question 65		Question 66	

4. Do you feel the way you could respond to each question was appropriate? (Circle the appropriate answer). **YES/ NO**

a. If **NO** briefly state why?

……
……
……

5. Do you feel the instructions given at the beginning of the inventory were clear and easy to understand? (Circle the appropriate answer). **YES/ NO**

Thank you.

Appendix 5.1

Item comprehension sheet, Finnish

YKSITTÄISTEN OSIOIDEN YMMÄRTÄMINEN LIITTYEN URHEILIJOIDEN ODOTUKSIA URHEILUVAMMOJEN KUNTOUTUKSESTA JA FYSIOTERAPIASTA -KYSELY

Alla on joitakin kysymyksiä liittyen urheilijoiden odotuksia urheiluvammojen kuntoutuksesta ja fysioterapiasta -kyselylomakkeeseen, jonka juuri täytit. Mitä tahansa mittaria kehitettäessä on tärkeää, että tutkija selvittää ymmärtävätkö tutkittavat kysymykset, ymmärtävätkö he miten tulisi vastata kuhunkin kysymystyyppiin ja kokevatko he että vastausvaihtoehdot ovat sopivia. Tässä lyhyessä kyselyssä voit kritisoida kyselylomaketta. Arvostamme apuasi ja vastauksesi ovat keskeisiä kun kehitämme lopullista kyselylomaketta.

1. Ymmärsitkö kunkin kysymyksen UOUKF -kyselystä? (Ympyröi sopiva vastaus).

KYLLÄ/ EI

a. Jos **ET** YMMÄRTÄNYT jotakin kysymystä, ruksaa kysymys (kysymykset):

Kysymys 1		Kysymys 2		Kysymys 3	
Kysymys 4		Kysymys 5		Kysymys 6	
Kysymys 7		Kysymys 8		Kysymys 9	
Kysymys 10		Kysymys 11		Kysymys 12	
Kysymys 13		Kysymys 14		Kysymys 15	
Kysymys 16		Kysymys 17		Kysymys 18	
Kysymys 19		Kysymys 20		Kysymys 21	
Kysymys 22		Kysymys 23		Kysymys 24	
Kysymys 25		Kysymys 26		Kysymys 27	
Kysymys 28		Kysymys 29		Kysymys 30	
Kysymys 31		Kysymys 32		Kysymys 33	
Kysymys 34		Kysymys 35		Kysymys 36	
Kysymys 37		Kysymys 38		Kysymys 39	
Kysymys 40		Kysymys 41		Kysymys 42	
Kysymys 43		Kysymys 44		Kysymys 45	
Kysymys 46		Kysymys 47		Kysymys 48	
Kysymys 49		Kysymys 50		Kysymys 51	
Kysymys 52		Kysymys 53		Kysymys 54	
Kysymys 55		Kysymys 56		Kysymys 57	
Kysymys 58		Kysymys 59		Kysymys 60	
Kysymys 61		Kysymys 62		Kysymys 63	
Kysymys 64		Kysymys 65		Kysymys 66	

b. Kunkin sellaisen kysymyksen kohdalta, jota et ymmärtänyt selitä lyhyesti miksi et ymmärtänyt:

……..…
…….
……..…

2. Ymmärsitkö kuinka vastataan kuhunkin kysymykseen (Ympyröi sopiva vastaus).

KYLLÄ/ EI

a. Jos **EI** selitä lyhyesti miksi:

……

……
……

3. Olivatko kysymykset mielestäsi järkeviä? (Ympyröi sopiva vastaus).

KYLLÄ/ EI

a. Jos valitsit **EI**, mitkä kysymykset eivät olleet mielestäsi järkeviä (ruksaa vastaavat kysymysten numerot).

Kysymys 1		Kysymys 2		Kysymys 3	
Kysymys 4		Kysymys 5		Kysymys 6	
Kysymys 7		Kysymys 8		Kysymys 9	
Kysymys 10		Kysymys 11		Kysymys 12	
Kysymys 13		Kysymys 14		Kysymys 15	
Kysymys 16		Kysymys 17		Kysymys 18	
Kysymys 19		Kysymys 20		Kysymys 21	
Kysymys 22		Kysymys 23		Kysymys 24	
Kysymys 25		Kysymys 26		Kysymys 27	
Kysymys 28		Kysymys 29		Kysymys 30	
Kysymys 31		Kysymys 32		Kysymys 33	
Kysymys 34		Kysymys 35		Kysymys 36	
Kysymys 37		Kysymys 38		Kysymys 39	
Kysymys 40		Kysymys 41		Kysymys 42	
Kysymys 43		Kysymys 44		Kysymys 45	
Kysymys 46		Kysymys 47		Kysymys 48	
Kysymys 49		Kysymys 50		Kysymys 51	
Kysymys 52		Kysymys 53		Kysymys 54	
Kysymys 55		Kysymys 56		Kysymys 57	
Kysymys 58		Kysymys 59		Kysymys 60	
Kysymys 61		Kysymys 62		Kysymys 63	
Kysymys 64		Kysymys 65		Kysymys 66	

4. Olivatko vastausvaihtoehdot mielestäsi sinulle sopivia (Ympyröi sopiva vastaus).

KYLLÄ/ EI

a. Jos **EIVÄT** olleet sopivia kuvaa lyhyesti miksi?

……
……
……

5. Olivatko lomakkeen täytön aluksi annetut ohjeet selkeät ja helpot ymmärtää? (Ympyröi sopiva vastaus).

KYLLÄ/ EI

Kiitos.

Appendix 6

Original assignment of items to scales

Expectation about Sport Injury Rehabilitation Physiotherapy (EASIRP) Questionnaire

Modified from the
Expectations about Sport Psychology Consulting (EASPC; Martin et al., 2001)

Assignment of Items to Scales	Scale Item Numbers
Personal Commitment	
EASPC Responsibility	5, 6, 23, 24
EASPC Openness	4, 17, 21
EASPC Motivation	12, 13, 16, 66
EASPC Attractiveness	2, 8, 15
EASPC Immediacy	3, 7, 9, 19
EASPC Concreteness	26, 30, 34
EASPC Outcome	10, 20, 22
Facilitative Conditions	
EASPC Acceptance	39, 56, 58
EASPC Confrontation	51, 59, 62
EASPC Genuineness	33, 37, 47
EASPC Nurturance	31, 42, 50
EASPC Trustworthiness	35, 38, 57
EASPC Tolerance	54, 60, 64
EASPC Self-Disclosure	41, 49, 53
SPC Expertise	
EASPC Directiveness	25, 27, 36
EASPC Empathy	28, 32, 45
EASPC Expertise	29, 40, 43
Realism	
EASPC Realism	1, 11, 14, 18, 44, 46, 48, 52, 55, 61, 63, 65