Anxiety and Depression Among Icelandic Footballers

Prevalence of symptoms, stigma, and help-seeking

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Abstract

The main purpose of the present study was to investigate the prevalence of anxiety and depression symptoms among athletes, with an emphasis on distinguishing between sport performance anxiety and general anxiety. Additionally, stigma and help-seeking related to these mental disorders were examined. The participants of the study were 184 Icelandic top league football players. Five questionnaires were administered: (1) a background questionnaire containing questions concerning the players' age, gender, and national team experience, (2) the Sport Anxiety Scale-2 (SAS-2) to measure sport performance anxiety, (3) the Hospital Anxiety and Depression Scale (HADS) to measure symptoms of general anxiety and depression, (4) the Depression Stigma Scale (DSS) to measure personal and perceived stigma, (5) a questionnaire including questions related to help-seeking. Our findings showed a strong positive correlation between symptoms of sport performance anxiety and general anxiety. A significant gender difference was found on SAS-2 and HADS anxiety subscale, with female players scoring significantly higher, but no such difference was found regarding depression. Results indicated no significant difference in scores on either of the HADS subscales, between injured and non-injured players. Interpretation of anxiety symptoms was not found to be more facilitative among players who had played for the national team, as opposed to players who had not played for the national team. Perceived stigma scores were significantly higher than personal stigma scores. Regarding how difficult participants would find seeking help if experiencing symptoms of anxiety or depression, no gender difference was found. On the basis of the results of this research, it can be concluded that a distinction between sport performance anxiety and general anxiety has to be made when investigating anxiety among athletes. This supports the view that a distinction is essential in order to avoid overdiagnosis.

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Recently, there has been an increased attention regarding the mental health of athletes, with the most common mental disorders known to be depression and anxiety (Gulliver, Griffiths, Mackinnon, Batterham, & Stanimirovic, 2015; Schaal et al., 2011). In particular, the prevalence and severity of anxiety have been in the discussion. Concurrent with the increased attention, studies have shown a high prevalence of general anxiety among athletes (Gouttebarge, Frings-Dresen, & Sluiter, 2015; Gulliver et al., 2015; Schaal et al., 2011). A possible reason for these findings could be that previous studies have not controlled for sport performance anxiety when examining general anxiety, possibly resulting in an overdiagnosis. Furthermore, some athletes are known to perceive anxiety symptoms as beneficial to performance (Jones, Hanton, & Swain, 1994; Jones, Swain, & Hardy, 1993; Perry & Williams, 1998). Therefore, it is important to be cautious about medicalizing anxiety in sports.

Depression

Depression has become the leading cause of disability in the world, and contributes largely to the overall global burden of disease (World Health Organization, 2012). Depression is characterized by sadness, decreased energy, changes in sleep and appetite, and loss of confidence and self-esteem. Other symptoms include irritability, thoughts of death and suicide, decreased concentration, and feelings of guilt or low self-worth for no apparent reason (Nolen-Hoeksema, 2014; World Health Organization, 2001).

Depressive episodes are categorized as mild, moderate or severe based on the number and severity of symptoms. A mild depressive episode will have some debilitating effect on everyday life whereas a severe depressive episode will most likely result in complete impairment in social or occupational areas of functioning (World Health Organization, 2012).

Depressed people appear to spend much of their time at least moderately depressed and in the course of a year spend an average of 16 weeks with significant symptoms of depression (Kessler et al., 2003). Moreover, the risk of relapse is high and research indicates that about 75 percent of people who recover from one episode of depression will experience further episodes (Kessing, Hansen, & Andersen, 2004). However, people who seek help and undergo treatment for depression greatly reduce their risk of relapse and tend to recover much faster. Nonetheless, many people do not seek care or wait for years before seeking treatment, especially those with mild episodes (Kessler et al., 2003) . One reason is that they believe the symptoms are only a temporary phase (Nolen-Hoeksema, 2014).

It is estimated that depression affects around 350 million people worldwide (World Health Organization, 2012) with women about twice as likely as men to experience depressive

symptoms (Nolen-Hoeksema, Fredrickson, & Loftus, 2009; Nolen-Hoeksema & Hilt, 2013; World Health Organization, 2008). Lifetime prevalence of depression varies widely across countries, but the majority is in the range of 8% to 12% (Andrade et al., 2003). Lifetime prevalence of depression in Iceland is 13% and 12-month prevalence is 2.6% (Stefánsson & Líndal, 2009).

Anxiety

It is common to have more than one mental diagnosis (Kessler, Chiu, Demler, Merikangas, & Walters, 2005; Merikangas et al., 2010; Stefánsson & Líndal, 2009). For example, roughly 30 to 40% of people suffering from depression also report symptoms of anxiety (Wittchen & Jacobi, 2005).

Anxiety is defined as a negative emotional state that is characterized by uncertainty, nervousness, constant worries and apprehension associated with physical arousal (Weinberg & Gould, 2015). Anxiety takes place when the individual doubts his or her ability to deal with the situation that is behind the stress (Hardy, Jones, & Gould, 1996).

It is important to make a distinction between cognitive and somatic anxiety. Cognitive anxiety may occur as frustration, restlessness, irritability, lack of attention, and negative self-talk (Weinberg & Gould, 2015). In addition to those factors the individuals may experience fear, negative expectations, and worries regarding him- or herself, the situation, and possible consequences (Morris, Davis, & Hutchings, 1981). Thus, cognitive anxiety is the psychological symptoms of anxiety. Somatic anxiety on the other hand refers to the physiological symptoms and can be defined as the individual's perception of the constantly changing arousal in the body (Weinberg & Gould, 2015). The physical symptoms can be various. The muscles tense and blood pressure increase as well as heart and breathing rate (Nolen-Hoeksema, 2014).

Another important distinction that has to be made when it comes to anxiety is the separation between state anxiety and trait anxiety. State anxiety refers to the constantly changing individual's emotional state described by the perceived unpleasant feelings of apprehension and tension, associated with his or her own perception on physical symptoms while coping with threatening or dangerous situations (Spielberger, 1972). Trait anxiety differs from state anxiety in the way it is relatively stable over time and is a part of an individual's personality (Weinberg & Gould, 2015). People with a higher level of trait anxiety are more likely to notice information related to state anxiety and to feel more threats in situations than people with lower level of trait anxiety (Hardy et al., 1996).

A direct, although not perfect, relationship exists between trait and state anxiety (Weinberg & Gould, 2015). Martens et al.'s (1990) study supports this conclusion with their findings that people with higher trait anxiety score tend to have higher state anxiety score (see Mellalieu, Hanton, & Fletcher, 2009).

Anxiety disorders can be separated into seven classes according to DSM-V, that is separation anxiety, selective mutism, specific phobia, social anxiety disorder, panic disorder, agoraphobia, and generalized anxiety disorder (American Psychiatric Association, 2013). In this research the main focus is on generalized anxiety disorder (GAD). People diagnosed with GAD have experienced excessive anxiety and worry almost all the time, over many different situations, for at least six months (American Psychiatric Association, 2013). They are anxious and worry about their performance, whether it is regarding work, family or health. In addition they may worry a lot about many things at the same time instead of focusing on only one thing (Nolen-Hoeksema, 2014). Because of this, people with GAD spend a lot of time to prepare for situations they fear, or they simply avoid them. They are also indecisive and more often than not looking for acceptance from others (American Psychiatric Association, 2013).

The physical symptoms for GAD are muscle tension, sleep disturbance, and restlessness. Other symptoms are concentration difficulties, being easily fatigued, and irritability. Three of these six symptoms are required to be diagnosed with GAD, alongside with anxiety and worry, and it must inhibit the individual in his everyday life (American Psychiatric Association, 2013).

Anxiety disorders rank as the most frequent group of mental disorders in the general population (Kessler et al., 2005; Wittchen & Jacobi, 2005; Wittchen et al., 2011). Lifetime prevalence of anxiety varies across countries but according to World Health Organization (WHO) lifetime prevalence of any anxiety disorder averaging about 16% and one-year prevalence averaging about 11% (Kessler et al., 2009). In Europe the lifetime prevalence of anxiety disorders is 14% (Wittchen et al., 2011) and one-year prevalence is 12% (Wittchen & Jacobi, 2005). Iceland is comparable to other European countries where the lifetime prevalence of any anxiety disorder is 14.4%. The one-year prevalence is slightly lower than in Europe though, or 5.5%. (Stefánsson & Líndal, 2009). The most frequent anxiety disorder is GAD with the one-year prevalence estimated to be from 1.9% to 5.1% in the general population (Wittchen, 2002). The European one-year prevalence for GAD is 1.7% (Wittchen & Jacobi, 2005). Also, studies on gender difference have shown that anxiety disorders are more prevalent among women (Steel et al., 2014; Stefánsson & Líndal, 2009) with them being twice as likely as men to be diagnosed with GAD (American Psychiatric Association, 2013).

Prevalence of mental disorders in sport

Empirical data on mental disorder in sports is limited and the representative prevalence rate of mental disorders among elite athletes is not very well known in detail (Nixdorf, Frank, Hautzinger, & Beckmann, 2013). Most of the studies exploring the prevalence rate of mental disorders in athletes have been implemented with college athletes. The findings of these studies seem to be inconsistent.

Yang et al. (2007) examined the prevalence of depression in 257 collegiate student athletes and found that 21% of the athletes reported symptoms of depression. Athletes experienced depression at approximately the same rate as that of a comparison group of non-athletes who participated in the study. In addition, significant association with depression symptoms and higher state and trait anxiety scores were found. However, studies on college athletes have also reported lower prevalence rate of depression in athletes compared to non-athletes (Armstrong & Oomen-Early, 2009; Proctor & Boan-Lenzo, 2010).

When it comes to mental disorders among elite athletes, the prevalence rate seems to be similar or higher than the prevalence rate in the general population, with anxiety disorders and depression as the most frequent mental disorders reported (Gouttebarge et al., 2015; Gulliver et al., 2015; Schaal et al., 2011). Gouttebarge et al. (2015) examined prevalence rate of depression and anxiety disorders in both currently playing professional football players and retired ones. The prevalence rate for the players that were still playing were 26% and retired ones 39%. The results of this study indicate that the prevalence rate of anxiety disorders and depression is significantly higher than in the general population. However, questions can be raised about the reliability and validity of these results since only four questions were used to measure the prevalence of anxiety and depression.

Research on the prevalence rate of mental disorders, which included French elite athletes playing at top level, showed that 17% of athletes are diagnosed with some kind of mental disorder, with lifetime prevalence of 25%. GAD had the highest prevalence rate, with 6% of the athletes indicated currently suffering from the disorder, and the lifetime prevalence reported to be 8%. Meanwhile, approximately 4% of athletes reported symptoms of depression, with lifetime prevalence rate of 11% (Schaal et al., 2011). Study of similar matter on Australian elite athletes found that 46% of all participants reported symptoms of at least one mental disorder. Depression had the highest prevalence rate, or 27%, and GAD in fifth place with 7% (Gulliver et al., 2015). However, in neither study was sport performance anxiety measured. Further on, a study on German elite athletes found that the prevalence rate for depression is

15% (Nixdorf et al., 2013). Based on these results, it seems that the prevalence rate for depression in elite athletes is comparable to the general population.

In relations to gender difference of mental disorders in athletes, women seem to experience more symptoms of mental disorders than men. Most findings suggest that there is higher proportion of women diagnosed with some kind of mental disorders. For instance, in Schaal et al.'s (2011) study 20% of women were diagnosed with some mental disorder, compared to only 15% of men. Gulliver et al. (2015) also found higher rates for women, with 53% of women and 39% of men reporting for symptoms of one or more disorders. One reason for these findings may be that women are more willing to report their feelings, especially the negative ones, than men (Jones, 1990). Studies also seem to indicate that women are prone to report higher levels of both state and trait anxiety (Jones & Cale, 1989; Martens et al., 1990).

Sources of stress in sport

Stress has been defined by McGrath (1970) as an imbalance between demand and response ability, where failure to meet that demand has significant consequences (see Weinberg & Gould, 2015). When it comes to athletes and the sport environment the term competitive stress is often used. There is a similar process going on between the individual and the environmental demands as in general stress, however, it is directly linked with competitive performance. In this context, these environmental demands are called competitive stressors and they are as well associated directly with competitive performance (Mellalieu et al., 2009).

Athletes are exposed to enormous amount of psychological stress on a daily basis. The sources of stress among athletes are, therefore, various with the likes of competitive concerns and pressure to perform (Mckay, Lavallee, Niven, & White, 2008). Fear of getting older, quitting the sport, injury, and competitive failure are all major stressors for athletes. In the end, these competitive stressors can lead to symptoms of depression and anxiety (Hughes & Leavey, 2012; Leddy, Lambert, & Ogles, 1994).

One of the main sources of stress in athletes is injury. In Nicholls, Holt, Polman, and Bloomfield (2006) injury was the most frequently cited source of stress among professional rugby players. Additionally, it has been found that when athletes get treatment for an injury, 80% of the time they also discuss psychological issues related to the injury (Mann, Grana, Indelicato, O'Neill, & George, 2007).

Brewer and Petrie (1995) compared depression symptoms between 916 college football players who had experienced injuries and those who had not. They found that athletes who had experienced an injury reported significantly higher depression symptom scores than those

reported by non-injured athletes. Leddy et al. (1994) study on 343 male collegiate athletes also found that injured athletes experienced more symptoms of both depression and anxiety than athletes who had not experienced injuries. Study by Kolt and Kirkby (1994) on gymnasts found that there is a difference depending on how serious the injury is. The gymnasts who were dealing with more severe injuries reported higher cognitive anxiety and were also more tired and anxious.

The anxiety-performance relationship

For elite athletes, the ability to handle pressure and anxiety is crucial (Hardy et al., 1996; Orlick & Partington, 1988). Thus, a great deal of research has been devoted to examine the effect anxiety has on sports performance (Humara, 1999) and this relationship has been a central concern to sport psychology researchers and practitioners (Mellalieu et al., 2009).

When trying to determine the anxiety-performance relationship, initial attempts were through arousal-based explanations (Mellalieu et al., 2009). Arousal is defined as a person's physiological and psychological activation at a certain moment (Weinberg & Gould, 2015). The possible effects of arousal on performance varies depending on its intensity. Low levels of arousal or anxiety can cause the mind to wander, slow movements, and lack of enthusiasm. On the other hand, high levels can cause increased muscle tension, fatigue, and attentional difficulties (Janelle, 2002; Pijpers, Oudejans, Holsheimer, & Bakker, 2003).

Drive theory (Spence & Spence, 1966) was one of those initial attempts. According to the theory, an increase in drive or arousal is associated with a linear increase in performance. This means that high arousal situations bring out the performer's dominant response, and the quality of performance should increase. This is not always the case as the dominant response is sometimes incorrect. If the performer's skill level is too low, increased arousal may lead to a decline in performance (Weinberg & Gould, 2015). The theory lacks empirical support and has been criticized for being simplistic (Mellalieu et al., 2009; Neiss, 1988). It also fails to explain why nervousness and choking occurs for elite performers in high-pressure situations (Weinberg & Gould, 2015).

Sport psychologists were dissatisfied with the drive theory and the approach was succeeded by another arousal-based approach, the inverted-U hypothesis (Landers & Arent, 2010; Oxendine, 1970). According to this view, the relationship between arousal and performance is in the shape of an inverted U. Thus, as arousal increases so does performance, up to an optimal point, beyond which arousal is too high and performance starts to decline (Mellalieu et al., 2009). Despite the theory's appeal it has some apparent issues. For example,

the same physiological state might be interpreted differently by individuals (Apter, 1984). High arousal might be interpreted as anxiety by someone, whereas another might interpret it as excitement. Another issue is that it fails to examine how and why anxiety influences performance (Landers, 1980).

The Catastrophe Model attempts to explain the interactive effects arousal and cognitive anxiety have on performance (Hardy, 1990, 1996; Hardy & Fazey, 1987). At low levels of cognitive anxiety, a change in arousal is related to performance in an inverted-U. While the cognitive anxiety remains low, an increase in arousal is beneficial to performance. Increases in arousal will continue to have positive effects on performance under conditions of high cognitive anxiety, but only until it reaches a certain point, just beyond the optimal arousal level. Any increases in arousal beyond that threshold result in a catastrophic drop in performance. The model also predicts that an athlete's best and worst performances occur under high cognitive anxiety conditions (Hardy, 1996). Given that the arousal level does not go too high, some anxiety can actually give the athlete an advantage over other competitors (Weinberg & Gould, 2015). Despite having some empirical support (Hardy & Parfitt, 1991; Hardy, Parfitt, & Pates, 1994) the model has been criticized for being complicated and difficult to test (Cohen, Pargman, & Tenenbaum, 2003; Gill, 1994; Hardy, 1996).

Another theory, Individualized Zones of Optimal Functioning (IZOF), stated that optimal arousal levels differ between individuals (Hanin, 1980, 1986). The theory proposes that every individual has an optimal pre-performance anxiety zone within which their best performance occurs. An anxiety level either above or below the optimal zone results in a poor performance. It is, therefore, dependent upon individuals where their optimal zone lies. Some individuals prefer low levels of pre-performance anxiety, some moderate levels, and others high levels. This approach recognizes that other emotions than anxiety, both positive and negative, influence performance (Gould & Udry, 1994; Hanin, 2000, 2007). If channelled positively, unpleasant emotions (e.g. frustration) can enhance performance. Likewise, pleasant emotions (e.g., confidence) can also have debilitating effects on performance (Hanin, 2007). IZOF has considerable research support (Gould & Tuffey, 1996; Robazza, Pellizzari, & Hanin, 2004; Salminen, Liukkonen, Hanin, & Hyvönen, 1995; Thelwell & Maynard, 1998; Woodman, Albinson, & Hardy, 1997) and is considered to better predict performance than the inverted-U theory (Raglin & Turner, 1993).

Reversal theory (Apter, 1982, 1984; Kerr, 1985, 1997) suggests that an individual's interpretation of his arousal level affects his performance. For top performance, an athlete must see his arousal as helpful rather than unhelpful. For example, an athlete who experiences high

arousal as anticipation, rather than as an unpleasant anxiety, is more likely to perform better. An athlete who experiences low arousal as relaxing, rather than boring, is also more likely to perform better (Weinberg & Gould, 2015). Additionally, athletes can suddenly reverse from interpreting high arousal as anticipation one minute, to anxiety the next minute (Apter & Batler, 1996; Kerr, 1997). Although reversal theory offers an interesting view on the effects arousal and anxiety have on performance, it lacks empirical support as few have tested the theory's predictions (Mellalieu et al., 2009; Weinberg & Gould, 2015).

Anxiety direction and intensity

Since anxiety is considered a negative emotion, most researchers have focused on the negative influence it has on performance (Mellalieu et al., 2009), where the focal point has been on examining the intensity of anxiety an athlete feels before and during competition. It appears, however, that an athlete's interpretation of anxiety is key in understanding the effects it has on performance (Jones, 1995; Jones et al., 1994; Woodman & Hardy, 2001).

The interpretation of anxiety symptoms is known as the direction of anxiety. These directional interpretations can be either positive or negative (facilitative or debilitative) in relation to performance (Jones, 1991; Jones & Swain, 1992; Jones et al., 1993). For example, an athlete might be anxious about an upcoming game, resulting in a panic, which debilitates his performance. Another athlete, who might also be anxious before a game, sees his symptoms as a signal of the importance of the game, resulting in a motivated and facilitative performance (Jones, 1995).

In an attempt to explain the direction of anxiety concept, Jones (1995) suggested that perception of control along with trait anxiety, self-esteem, and other individual factors would determine whether an athlete perceives anxiety as facilitative or debilitative. According to Jones' model, stressors occur in the environment, such as playing in a cup final, that lead to anxiety symptoms. If an athlete feels he is in control of the situation and believes he has the ability to achieve his goals, facilitative anxiety will result. In comparison, if an athlete feels he is not in control and there is no way he can cope with the pressure, debilitative anxiety will result.

Several studies suggest that skill level is the best predictor of whether anxiety is interpreted as facilitative or debilitative. It appears that there are no differences in the intensity of both cognitive and somatic anxiety between elite and non-elite athletes. Elite performers, however, report both anxiety states as being more facilitative for performance. For example, Jones et al. (1993) reported that there were no differences in the intensity of anxiety states

between good and bad performers on the balance beam, but the good performers reported their cognitive anxiety as more facilitating than the bad performers. Jones et al. (1994) also found differences in interpretation of both anxiety states between elite and non-elite swimmers, one hour before an important competition, where the elite group considered their symptoms as being more facilitative to performance. Furthermore, Perry and Williams (1998) reported similar findings when comparing advanced, intermediate, and novice tennis players. Only players in the advanced group reported perceiving anxiety symptoms as beneficial to performance.

In summary, these and other similar findings regarding skill level (Eubank, Smith, & Smethhurst, 1995; Hanton & Connaughton, 2002; Hanton, Evans, & Neil, 2003; Jones & Swain, 1995) suggest that the difference between elite and non-elite performers lies in the direction of anxiety, rather than the intensity. Elite performers appear to have a more positive perception of these symptoms in regard of their consequences for performance (Jones & Swain, 1995).

Stigma of mental health

For those suffering from mental disorders like depression and anxiety, stigma is a major problem. A definition of stigma has been made by Link and Phelan (2001) that when aspects of stereotyping, status loss, labelling, separation, and discrimination take place together in a setting that allows them, stigma occurs. A distinction may then be proposed between personal and perceived stigma. Personal stigma indicates the individual's personal negative attitudes, beliefs, and thoughts, while perceived stigma on the other hand refers to the individual's perception on other people's attitudes, beliefs, and thoughts (Griffiths et al., 2006; Latalova, Kamaradova, & Prasko, 2014).

Negative affect on the individual may result from both personal and perceived stigma, in the sense for prevention in help seeking and treatment continuum for a mental disorder (Barney, Griffiths, Jorm, & Christensen, 2006; Corrigan, 2004; Griffiths, Christensen, & Jorm, 2008). Additionally, perceived stigma can increase symptoms of depression and anxiety (Britt et al., 2008; Link & Phelan, 1999; Sirey et al., 2001). On average, the report rate for perceived stigma is greater than the report rate for personal stigma by the general public (Pedersen & Paves, 2014).

Fortunately, ways to reduce stigma towards people suffering from mental disorders exists. Education and contact for instance have been shown to have a positive effect on

decreasing stigma for both adults and adolescents (Corrigan, Morris, Michaels, Rafacz, & Rusch, 2012).

Exercise is also known to have a positive and protective effect on mental disorders (Cooney et al., 2013; Paluska & Schwenk, 2000). Despite that, athletes are susceptible to mental illness, and are perhaps more likely to be underdiagnosed than the general population. There is stigma towards mental disorders among athletes and a common response to disorders is that they represent a personal breakdown, a lack of willpower, and character weakness (Schwenk, 2000). For example, athletes playing in physical contact sports (e.g., American football players, wrestlers) often develop the belief that pain, distress, and injuries are part of the sport (Nixon, 1996). Therefore, they accept the pain silently in order to "be a man", and show more resistance in seeking help (see Martin, Lavallee, Kellmann, & Page, 2004). Several studies have shown that women are more likely than men to seek help when suffering from mental disorders (Oliver, Pearson, Coe, & Gunnell, 2005; Parslow & Jorm, 2000).

There are limited studies on stigma among elite athletes, but a study of elite athletes' attitudes toward seeking help suggested that athletes may have less positive attitudes toward help-seeking than their non-athlete counterparts (Watson, 2005). In a study on young elite athletes, Gulliver, Griffiths, and Christensen (2012) found that stigma is an important barrier in seeking help for elite athletes. According to their findings, athletes showed high levels of perceived stigma, and were concerned that people connected to their sport would see help-seeking as a sign of frailty or inability to cope. Stigma may well have more influence on athletes than others due to their perceived attitudes of the media and the public.

The purpose of the study

It is common for athletes to experience anxiety before a competition. They perhaps worry about how they are going to perform, or feel tense in their stomach. These anxiety symptoms can be almost identical to the ones listed in general anxiety questionnaires. However, for many athletes these anxiety symptoms often only relate to performance in sports settings, known as sport performance anxiety. Consequently, a distinction has to be made between general anxiety and sport performance anxiety when administering anxiety questionnaires to athletes. To prevent inflation of scores, it is crucial to ask the athletes to exclude their sport related anxiety when answering questions regarding general anxiety. Previous studies (Gouttebarge et al., 2015; Gulliver et al., 2015; Schaal et al., 2011) on the prevalence of anxiety among athletes have not made this distinction sufficiently. As a result, athletes may have been overdiagnosed in terms

of anxiety symptoms. If this distinction is made, however, it can be speculated that athletes would have similar prevalence of anxiety symptoms as the general public.

The purpose of the current study is to evaluate mental health among football players in the top league in Iceland. The main focus is on anxiety and depression symptoms among the players with an emphasis on distinguishing between general anxiety and sport performance anxiety. Assessing their attitudes towards these mental disorders is also the purpose of this study. Six hypotheses are presented.

The first hypothesis proposes that there is a positive correlation between sport performance anxiety and general anxiety, and also between sport performance anxiety and depression. That is, individuals who score high on sport performance anxiety are expected to report more symptoms of general anxiety and depression. People who suffer from GAD experience anxiety in many different situations (American Psychiatric Association, 2013), and would, therefore, be assumed to do so in sport related settings.

The second hypothesis is that female players will report more symptoms of sport performance anxiety, general anxiety and depression. Numerous studies on the general public have shown that anxiety disorders are more prevalent among women (Steel et al., 2014; Stefánsson & Líndal, 2009). They are also twice as likely as men to experience depressive symptoms (Nolen-Hoeksema et al., 2009; Nolen-Hoeksema & Hilt, 2013; World Health Organization, 2008) and to be diagnosed with GAD (American Psychiatric Association, 2013). In addition, studies on athletes have shown that women experience more symptoms of mental disorders than men (Gulliver et al., 2015; Schaal et al., 2011).

The third hypothesis proposes that players who have been out with injury the week before the data collection took place will report more symptoms of both anxiety and depression than players who have not experienced any injury. Studies have shown that athletes who experience injury report more symptoms of anxiety and depression than non-injured athletes (Brewer & Petrie, 1995; Leddy et al., 1994). It is also proposed that players who have missed more trainings due to injuries will report more symptoms of anxiety and depression. A study has shown that athletes dealing with more severe injuries report higher cognitive anxiety and are also more tired and anxious (Kolt & Kirkby, 1994).

The fourth hypothesis is that players who have played for the national team will report anxiety as more facilitating and have a more positive perception of these symptoms than players who have not played for the national team. Studies have shown that higher skilled players are more likely to perceive anxiety symptoms as beneficial to performance (Jones et al., 1994; Jones et al., 1993; Perry & Williams, 1998).

The fifth hypothesis that is put forth is that the athletes will report higher perceived stigma than personal stigma. A study has found that the report rate for perceived stigma is greater than the report rate for personal stigma by the general public (Pedersen & Paves, 2014). It has also been shown that athletes show high levels of perceived stigma (Gulliver et al., 2012).

The sixth hypothesis proposes that male players would find it harder to seek help if they were experiencing symptoms of anxiety or depression than female players. Studies have shown that women are more likely to seek help than men (Oliver et al., 2005; Parslow & Jorm, 2000).

Method

Participants

A total of 184 football players playing in the top league of Iceland participated in the study. Out of the 184 participants, 105 were men (57.1%) and 79 were women (42.9%). The mean age for both genders was 24 years, with an age range of 18 to 41 years for men, and 18 to 34 years for women. Both foreign players and players under 18 years of age were excluded from the study.

A convenience sample was used to recruit participants where teams located in Reykjavik and nearby areas were contacted. The athletes were not rewarded for their participation. The top football leagues in Iceland have 22 teams, 12 in the male league and ten in the female league. Out of these, six women's team and seven men's team participated in the study.

Instruments and measures

Participants in the study answered five questionnaires containing 76 questions in total. The questionnaires can be found in Appendix 2 to 6.

The first questionnaire (see Appendix 2) contained questions about the players' age, gender, and national team experience. They were also asked if they had been out with injuries or not the week before, and if so, how many trainings they had missed because of their injury. In addition, the questionnaire included questions about the effects of anxiety on the players, if they felt that anxiety had facilitative effects on their competition performance and whether they use any methods to reduce or increase anxiety before competition. The questions were answered by the players on a 7-point scale: *1 = never, 2 = very rarely, 3 = rarely, 4 = neutral, 5 = often, 6 = very often, 7 = always*.

Sport anxiety

The second questionnaire used in the study was the Sport Anxiety Scale-2, or SAS-2 (Smith, Smoll, Cumming, & Grossbard, 2006), that measures both cognitive and somatic trait anxiety in sport performance settings (see Appendix 3). The scale is a further development of the original scale, Sport Anxiety Scale (SAS; Smith, Smoll, & Schutz, 1990). The main reason for the development of a more advanced scale was that even though SAS was found to be a reliable and a valid measure for both cognitive and somatic sport performance anxiety, the scale was not consistent enough when it came to examining sport performance anxiety in children. The

SAS-2 on the other hand is found to be a reliable and a valid instrument to measure sport performance anxiety in both children and adult athletes (Smith et al., 2006).

The SAS-2 measures individual differences of athletes' somatic anxiety, worry and concentration disruption. The scale includes 15 statements, with five statements for each of the three components, where the athletes answer on a 4-point scale: *1 = not at all, 2 = a little bit, 3 = pretty much, 4 = very much*. For example, a statement associated with the somatic anxiety is "I feel tense in my stomach", for the worry factor "I worry that I will let others down" and with concentration disruption "I lose focus on the game". The lowest possible score athletes can get is 15 and the highest is 60. Athletes with lower scores are less likely to have sport performance anxiety than those with higher scores (Smith et al., 2006).

For the translation of the SAS-2 from English to Icelandic a direct translation (Mckay et al., 1996) and committee translation method (Harkness & Schoua-Glusberg, 1998) was applied. The translation was then assessed by three experts in psychology.

Anxiety and depression

The third questionnaire used in the study was the Hospital Anxiety and Depression Scale (HADS; Zigmond & Snaith, 1983), which measures both symptoms of anxiety and depression (see Appendix 4).

Before answering the questionnaire participants were asked to mark the option that best fitted with their last week's wellbeing, but exclude their wellbeing associated with sport performance on game day and during competition. The questionnaire consisted of 14 items, with seven of the items related to HADS subscale for anxiety, and seven to HADS subscale for depression. The items that were related to the anxiety subscale were for example: "I feel tense or wound up" and "Worrying thoughts go through my mind". The items that were related to the depression subscale were for instance: "I can laugh and see the funny things of life" and "I feel cheerful". All of the statements were answered on a 4-point scale where participants could get a score from zero to three points for each statement. The highest total score on each subscale could therefore be 21, and the lowest zero. The score indicated whether the participant suffered from anxiety or depression. A total score below eight indicated that the participant did not suffer from anxiety or depression, but a total score from eight to ten was classified as borderline abnormal. Scores from 11 and up to 21 were classified as abnormal and indicated that the participant possibly suffered from anxiety disorder or depression (Zigmond & Snaith, 1983).

The HADS has been translated from English to Icelandic (Schaaber, Smári, & Óskarsson, 1990) and has shown good reliability and validity (Magnusson, Axelsson, Karlsson, & Oskarsson, 2000).

Stigma

The fourth questionnaire used in the study was the Depression Stigma Scale (DSS; Griffiths, Christensen, Jorm, Evans, & Groves, 2004). The DSS (see Appendix 5) measures stigma associated with depression using 18-item scale divided into two subscales, the personal stigma subscale and the perceived stigma subscale, with half of the items belonging to each one. Personal stigma refers to the individual's own attitudes, beliefs, and thoughts towards depression. Participants were asked to specify how strongly they personally agree or disagree with nine statements about depression. Examples of statements about personal stigma are: "People with depression could snap out of it if they wanted" and "If I had depression I would not tell anyone". Perceived stigma, on the other hand, refers to the individual's perception about other people's attitudes, beliefs, and thoughts towards depression. Participants were therefore required to answer the same nine statements about what they thought the attitude and belief of most other people towards depression is. Examples of statements about perceived stigma are: "Most people believe that people with depression could snap out of it if they wanted" and "If they had depression, most people would not tell anyone". The ratings on each of the 18 statements were on a five-point scale: *0 = strongly disagree, 1 = disagree, 2 = neither agree nor disagree, 3 = agree, 4 = strongly agree.* For each subscale participants can get a score from 0-36, with higher scores indicating greater stigma towards depression (Griffiths et al., 2004).

To examine players stigma related to the sport, the wordings of two questions were modified. The questions from the DSS "I would not employ someone if I knew they had been depressed" and "I would not vote for a politician if I knew they had been depressed" were replaced with "I would not want to play with someone that I knew had depression" and "I would not want to have a coach who I knew had depression".

The DSS has shown good reliability for both personal and perceived stigma (Griffiths et al., 2008; Griffiths et al., 2004). A direct translation (Mckay et al., 1996) and committee translation method (Harkness & Schoua-Glusberg, 1998) was used to translate the DSS from English to Icelandic. To measure stigma towards anxiety the word depression was replaced with the word anxiety.

To study attitudes towards anxiety disorder and depression further, four questions were added in relations to stigma and help-seeking (see Appendix 6). Participants were asked how easy or difficult they would find seeking help if they were experiencing symptoms of anxiety or depression. The questions were answered on a 5-point scale: *1 = very difficult, 2 = difficult, 3 = neither easy nor difficult, 4 = easy, 5 = very easy.* Additionally, participants were asked where they would most likely seek help if they were experiencing symptoms of anxiety or depression. Participants answered with ratings ranging from 1 to 7, with the most likely option rated 7, the second most likely option rated 6, and so on. Participants were only allowed to use each number once. The options of where they would most likely seek help were for example: "Family or a friend", "Sport psychologist", and "Teammate".

Procedure

The study was approved by the National Bioethics Committee. Coaches or chairmen of the clubs were directly contacted via e-mail, with information about the procedure and purpose regarding the study alongside with requested permission of involvement of the players in the study, and approached by phone if needed. Followed by the coaches' permission on behalf of the club and the players, the time and place to submit the questionnaires (see Appendix 2-6) was decided. It was made sure that the questionnaires were not administered before a game or on game day, to minimize the risk that sports performance anxiety would affect the scores regarding the general anxiety. Data collection took place during the preseason, between four and eight weeks prior to the beginning of the season.

The front page of the questionnaires was an information sheet (see Appendix 1) that players were kindly asked to read carefully, stating the purpose and the involvement of participation in the study. Verbal instructions were also given by the researchers about how to answer the HADS to further emphasize that the players answered the questionnaire in terms of how they felt on days which they did not have a game. In addition, players were informed that participation in the study was anonymous and untraceable, and withdrawal from the study was in order at any time without any explanation required. After giving informed consent the five questionnaires were administered. The questionnaires consisted of 76 items which took the players around 12 to 15 minutes to complete.

Design and data analysis

The design of the study was survey research design. Three types of independent variables were used in the study, gender, injury and national team experience. The dependent variables were

scores on the SAS-2 and the HADS anxiety and depression subscales, as well as scores on help-seeking. Additionally, scores on stigma for both anxiety and depression were used to compare personal stigma of the players with their perceived stigma. All the analysis was conducted with IBM SPSS Statistics 20.

The data was analysed by using Cronbach's alpha (α) to look at internal consistency. All the scales had considerably high Cronbach's alpha (.71-.92) suggesting high levels of internal consistency. Prevalence of participants with anxiety and depression symptoms was computed. Pearson correlation was then used to assess associations between the scores on the SAS-2 and scores on the HADS anxiety and depression subscales. To evaluate scores between genders on the SAS-2 and the HADS subscales, an independent samples t-test was conducted. An independent samples t-test was further used to compare scores on the HADS subscales between injured and non-injured players, along with comparing facilitative anxiety scores from players who had either played for the national team or had not. In order to see differences between number of trainings missed due to injury and HADS anxiety and depression scores, a one-way ANOVA was conducted. Furthermore, personal and perceived stigma towards anxiety and depression estimated by DSS was compared by using a paired samples t-test. Finally, an independent samples t-test was computed to compare help-seeking scores between genders.

Results

The 15 item Sport Anxiety Scale-2 was highly reliable with a Cronbach's alpha of .92. The Cronbach's alphas for the 7 item HADS anxiety and the 7 item HADS depression subscales were .82 and .71 respectively. All of the DSS subscales were found to be relatively reliable. Alpha for the Personal Stigma subscale for depression was .72 and .87 for the Perceived Stigma subscale. The Personal Stigma subscale for anxiety (α = .80) and the Perceived Stigma subscale for anxiety (α = .89) indicated high internal consistency. Data from all of the 184 participants was used in this study for HADS, but data from three participants was missing for DSS and from four participants in SAS-2.

Prevalence of anxiety and depression symptoms

The mean score on the SAS-2 was 26.12 (*SD* = 7.6) with a minimum score of 16 and a maximum score of 51. The mean score on the HADS anxiety subscale was 4.59 (*SD* = 3.4), the highest was 14 and the lowest was zero. The HADS depression subscale had a mean score of 2.46 (*SD* = 2.6) with a maximum score of 12 and a minimum score of zero.

Prevalence of participants with anxiety and depression symptoms scores is shown in Figure 1. Fourteen participants (7.6%) had anxiety scores within the abnormal range while three participants (1.6%) scored within the abnormal range for depression.

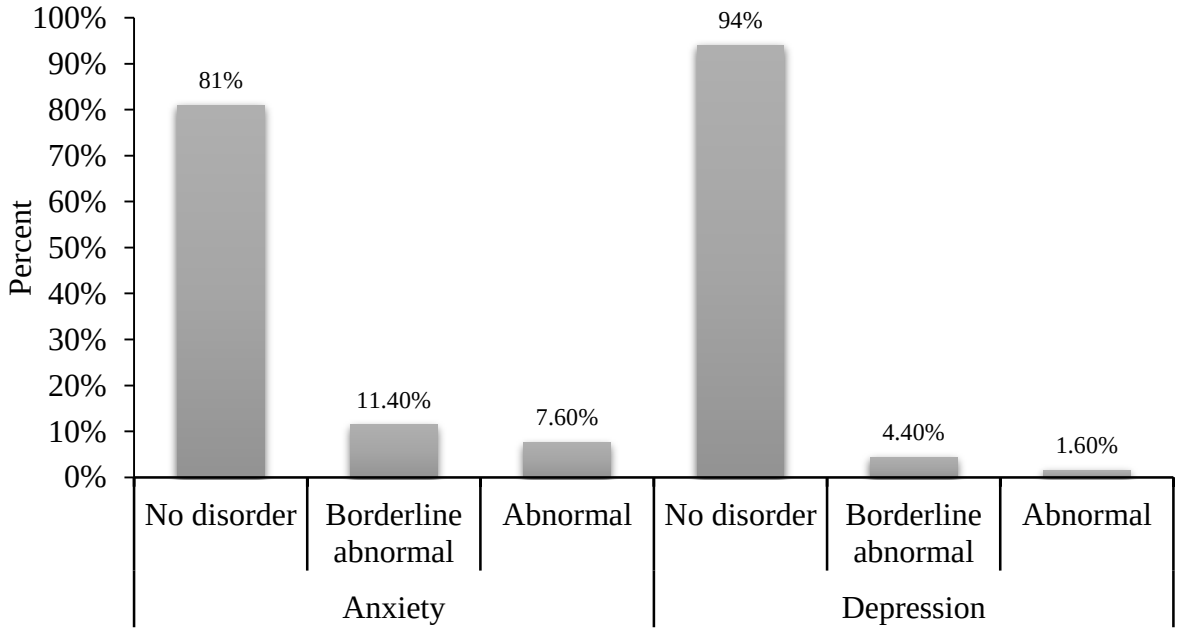

Figure 1. Prevalence of anxiety and depression among the athletes.

The correlation between anxiety and depression and sport performance anxiety

To assess the relationship between scores on the SAS-2 and scores on the HADS anxiety and depression subscales a Pearson product-moment correlation coefficient was computed. The results indicated a strong positive correlation between scores on the SAS-2 and the HADS anxiety subscale, $r(180) = .71$, $p < .001$ (see Figure 2). The correlation between scores on the SAS-2 and the HADS depression subscales was moderate, $r(180) = .43$, $p < .001$ (see Figure 3).

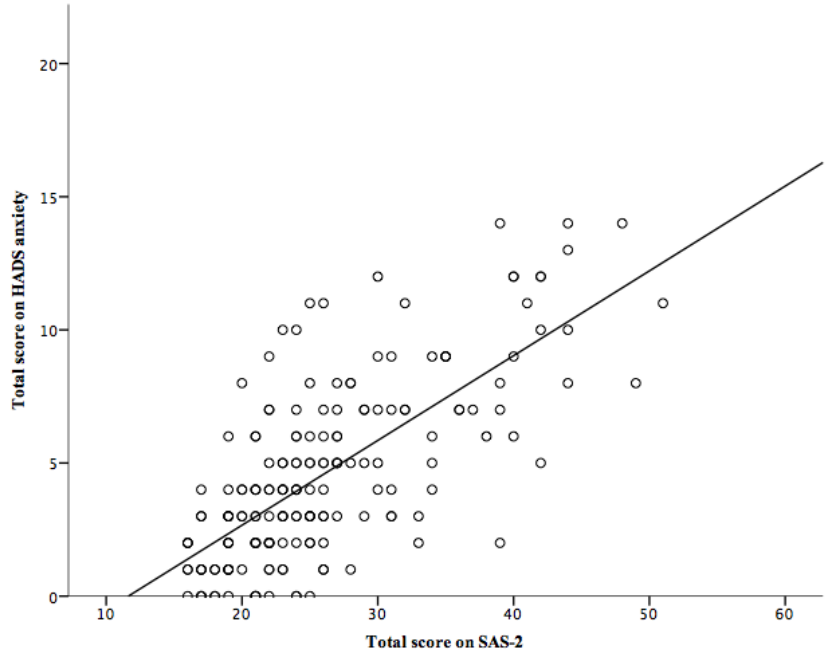

Figure 2. The correlation between total scores on SAS-2 and HADS anxiety subscale.

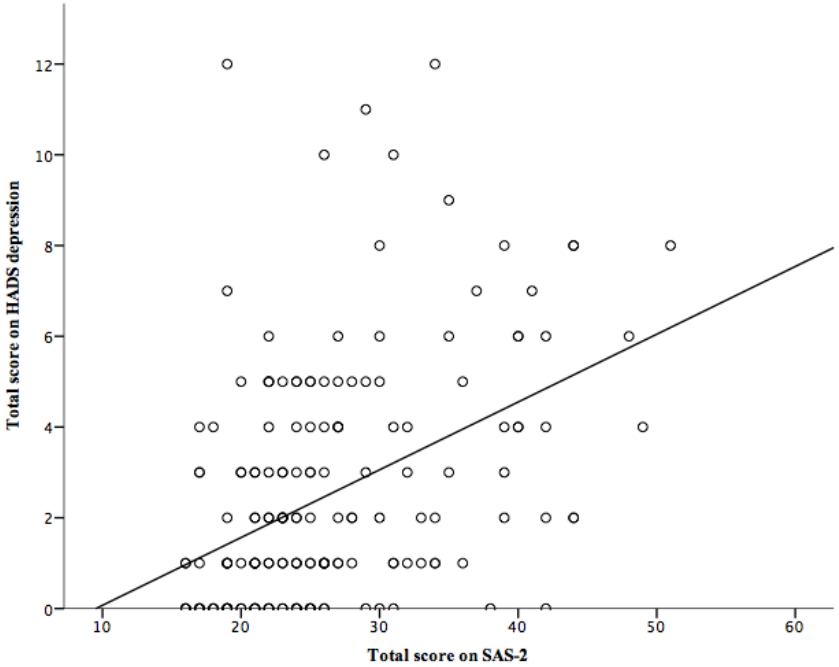

Figure 3. The correlation between total scores on SAS-2 and HADS depression subscale.

Gender difference

Scores on the SAS-2 and the HADS subscales can be seen in Table 1. The mean scores on sport performance anxiety, general anxiety and depression were higher among female players than male players. An independent samples t-test was computed to compare scores between genders on SAS-2 and the HADS subscales. There was a significant gender difference in scores on the SAS-2, $t(178) = -5.88$, $p < .001$. The difference in scores on the HADS anxiety subscale was also significant, $t(182) = -3.32$, $p < .001$. For the HADS depression subscale, the gender difference was not significant, $t(182) = -.88$, $p = 3.81$.

Table 1. Scores on the SAS-2 and the HADS anxiety and depression subscales by gender.

	Male					Female				
	n	*M*	*SD*	*Min*	*Max*	*n*	*M*	*SD*	*Min*	*Max*
Sport Performance Anxiety	103	23.48	5.81	16	42	77	29.65	8.19	16	51
Anxiety	105	3.89	3.22	0	14	79	5.52	3.42	0	14
Depression	105	2.31	2.64	0	12	79	2.66	2.61	0	12

Anxiety and depression symptoms for injured and non-injured players

Table 2 demonstrates scores on the HADS anxiety and depression subscales for injured and non-injured players. Forty-one players (22%) had suffered from injury the week before the administration of the questionnaires. An independent samples t-test was computed to compare HADS anxiety and depression scores between injured and non-injured players. Results indicated no significant difference in scores on neither the anxiety subscale, $t(182) = .15$, $p = .88$, nor the depression subscale, $t(182) = .41$, $p = .68$, for injured and non-injured players.

Table 2. Scores on the HADS anxiety and depression subscales for injured and non-injured players.

		Anxiety		Depression	
	n	*M*	*SD*	*M*	*SD*
Non-injured	143	4.57	3.28	2.42	2.69
Injured	41	4.66	3.83	2.61	2.40
1-2 trainings missed	24	4.33	3.41	2.21	2.40
3-4 trainings missed	10	5.00	4.97	3.30	2.31
5+ trainings missed	7	5.29	3.86	3.00	2.58

To examine if the numbers of trainings missed had an impact on anxiety and depression scores, a one-way ANOVA was computed. The results suggested that the number of trainings missed did not have a significant effect on anxiety scores, $F(2, 38) = .21$, $p = .81$. The results further suggested no significant differences in depression scores in terms of the number of trainings missed, $F(2, 38) = .84$, $p = .44$.

Facilitative anxiety

An independent samples t-test was used to compare scores between players who had played for the national team and players who had not played for the national team for the statement: "Anxiety can have positive effects on my performance in games". Results indicated no significant differences between players who had at some point played for the national team and those who had not, $t(180) = -.31$, $p = .76$. There were 37 players (20%) who had played for the national team on any occasion ($M = 3.49$, $SD = 1.54$) and 145 players (80%) who had never played for the national team ($M = 3.57$, $SD = 1.53$).

Comparing personal and perceived stigma

Table 3 displays personal and perceived stigma scores on the DSS for depression and anxiety. Players had a higher mean score on the perceived stigma scale for anxiety and depression than on the personal stigma scale. A paired samples t-test was computed to compare personal and perceived stigma DSS scores for depression and anxiety. Results indicated a significant difference in scores on personal stigma compared to perceived stigma for depression, $t(180) = -12.1$, $p < .001$, and anxiety, $t(180) = -14.97$, $p < .001$.

Table 3. Scores on the personal stigma scale and the perceived stigma scale for anxiety and depression on the DSS.

	Anxiety		Depression	
	M	*SD*	*M*	*SD*
Personal stigma	6.04	5.07	6.79	4.77
Perceived stigma	12.36	7	14.45	6.58

Help-seeking

Table 4 shows the mean score for help-seeking by gender. An independent samples t-test was computed to compare scores between genders on how hard or easy they would find seeking help if they suffered from anxiety or depression. Results showed no significant differences in help-seeking by gender if suffering from anxiety, $t(163) = .28$, $p = .78$, or depression, $t(160) = .54$, $p = .59$.

Table 4. Scores on help-seeking if suffering from anxiety or depression by gender.

	Anxiety			Depression		
	n	*M*	*SD*	*n*	*M*	*SD*
Male	87	3.1	1.21	85	3.05	1.19
Female	78	3.05	1.15	77	2.95	1.16

Participants were further asked where they would most likely seek help if they suffered from anxiety or depression. Figure 4 shows that athletes would most likely turn to family or a friend if they suffered from anxiety ($M = 6.39$) or depression symptoms ($M = 6.45$).

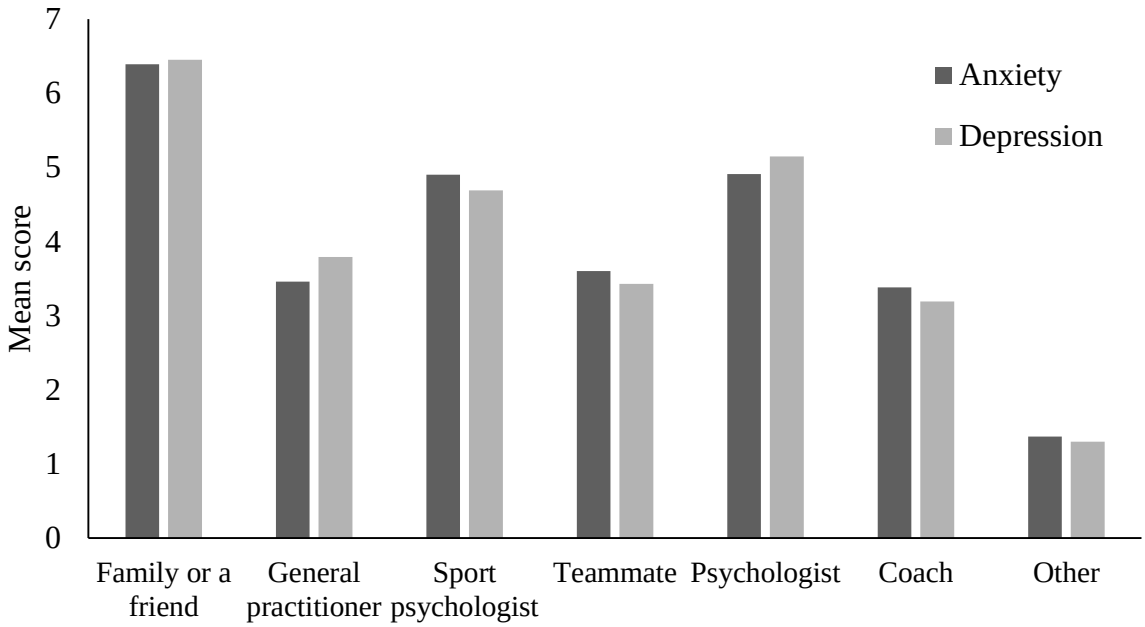

Figure 4. The mean score for the question: "If you were experiencing symptoms of anxiety/depression, where would you most likely seek help?" The rating range was from 1 to 7, with the most likely option rated 7.

Discussion

The primary purpose of the current study was to investigate mental health among football players in Iceland. The focus was on examining the prevalence of anxiety and depression symptoms among the players with an emphasis on distinguishing between sport performance anxiety and general anxiety. To make that distinction, the SAS-2 questionnaire was submitted alongside with the HADS questionnaire, which is the main difference between the present study and other similar studies. The purpose of using the SAS-2 was to prevent that sport performance anxiety would inflate the score on measurements for general anxiety. Additionally, evaluating the players' attitudes towards these mental disorders was investigated.

The prevalence of anxiety symptoms among football players was approximately 8% and the prevalence of depression symptoms was around 2% in this study. Our findings suggest that the prevalence of anxiety symptoms is higher among Icelandic football players than in the Icelandic general population, where the prevalence is estimated to be 5.5% (Stefánsson & Líndal, 2009). However, our findings indicated that the prevalence of depression symptoms is lower among football players than in the Icelandic general population, where the prevalence is 2.6% (Stefánsson & Líndal, 2009).

The results showed a strong positive correlation between symptoms of sport performance anxiety and general anxiety. This is in line with the first hypothesis proposed which stated that players with high sport performance anxiety were more likely to have high general anxiety. Despite a strong positive correlation, the relationship was not perfect, which implies that the players who experience symptoms of sport performance anxiety do not necessarily suffer from general anxiety. Therefore, some players could have high sport performance anxiety but low general anxiety. In addition, the results showed a positive correlation between symptoms of sport performance anxiety and depression. However, the correlation between those two variables was not strong but moderate. These findings suggest that to avoid inflated scores and overdiagnosis, a distinction between sport performance anxiety and general anxiety has to be made. Thus, when measuring prevalence of general anxiety symptoms among athletes, it is essential to find ways to exclude the symptoms that only relate to sport settings and competitions.

In our study, a higher prevalence of sport performance anxiety symptoms and general anxiety symptoms was found among female players, suggesting a significant gender difference. This is in accordance with our second hypothesis, which proposed that female players would report more symptoms of sport performance anxiety and general anxiety. Other studies on gender difference have shown that anxiety disorders are more prevalent among women (Steel

et al., 2014; Stefánsson & Líndal, 2009). Regardless of previous studies, a possible reason for these findings may be that women are more willing to report their feelings, particularly the negative ones, than men (Jones, 1990). Additionally, it was hypothesized that female players would have higher depression scores, but for depression the gender difference was not significant. This is not in line with other studies, which have shown that women are about twice as likely as men to experience depressive symptoms (Nolen-Hoeksema et al., 2009; Nolen-Hoeksema & Hilt, 2013; World Health Organization, 2008). Moreover, in relations to gender difference of mental disorders in athletes, findings suggest that female athletes are more likely to experience symptoms of depression than male athletes (Gulliver et al., 2015; Schaal et al., 2011). A possible explanation for our findings could be that women are more likely to use social support (Shumaker & Hill, 1991) which could prevent the onset of depression.

Contrary to the third hypothesis, regarding how injuries affect players, results indicated no significant difference in scores on neither the anxiety subscale, nor the depression subscale, for injured and non-injured players. Thus, injuries did not seem to affect anxiety or depression scores. This is in contrast with other studies which have found that injured athletes report more symptoms of both depression and anxiety than athletes who have not experienced injuries (Brewer & Petrie, 1995; Leddy et al., 1994). When examining further the results from the injured players, the findings suggested that the number of trainings missed did not have a significant difference on the anxiety or depression scores. This is surprising since it is speculated that there is a difference depending on how serious the injury is (Kolt & Kirkby, 1994). A possible reason for this outcome might be that players who have been injured for a while were not present during the administration of the questionnaires. It is not uncommon for injured players to not be a part of team training sessions, often due to them seeing a physiotherapist to work on their injuries, and would therefore not be in this study's sample.

In the fourth hypothesis it was predicted that players who had played for the national team would report anxiety as more facilitating and would have a more positive perception of these symptoms than players who had not played for the national team. The results of this study indicated no significant differences between these players. This contradicts other studies that have shown that higher skilled players are more likely to perceive anxiety symptoms as beneficial to performance (Jones et al., 1994; Jones et al., 1993; Perry & Williams, 1998). However, there is a chance that the players who have played for the national team have only done so on very few occasions, and perhaps only friendly games. In this study, those players would be categorized as elite, when the difference between them and other players may only

be a couple of national team games. This could explain the lack of variation between the two groups regarding facilitative anxiety.

Perceived stigma was found to be higher than personal stigma for both anxiety and depression. This is consistent with the fifth hypothesis proposed and previous studies on stigma (Pedersen & Paves, 2014). Perceived stigma has also been specified to be an important barrier in seeking help for athletes, as they believe people connected to their sport would see help-seeking as a sign of character weakness (Gulliver et al., 2012). In addition, perceived stigma can increase symptoms of anxiety and depression (Britt et al., 2008; Link & Phelan, 1999; Sirey et al., 2001). Luckily, there are ways to reduce stigma. Education, for instance, has been shown to help decrease stigma among adults and adolescents (Corrigan et al., 2012). Consequently, it is important to educate both coaches and players about the influence stigma can have on individuals suffering from mental disorders.

The sixth hypothesis predicted that female players would find it easier to seek help if they were experiencing symptoms of anxiety or depression than male players. Surprisingly, the results indicated no significant differences in help-seeking by gender. This is not in accordance with previous studies which have reported that women are more likely to seek help than men (Oliver et al., 2005; Parslow & Jorm, 2000). A possible limitation concerning the help-seeking question was that a forced choice format was not used. This may have resulted in central tendency bias, where participants are hesitant to take a stance and avoid using the extreme answers, by rather being neutral.

The players were then asked where they would most likely seek help if they were experiencing symptoms of anxiety or depression. The most likely group was found to be family or a friend. There were almost no differences between anxiety and depression, but some variation seemed to be between the help seeking groups.

A few limitations to the current study should be considered. One limitation of our study is that it uses questionnaires that measure only symptoms of anxiety and depression, not structured diagnostic questionnaires. It does, therefore, not guarantee that a person is struggling with anxiety or depression, and is not a diagnosis of those mental disorders. It should also be noted that the Icelandic versions of SAS-2 and DSS have not been applied before, so further psychometric analysis is required. Finally, participants all came from the same sport which results in a lack of diversity in the sample. This prevents us from making generalisations about athletes in general.

A practical application of this study is that it emphasizes the importance of controlling for sport performance anxiety when examining general anxiety. Our findings support the notion

that when this is done, inflated scores and overdiagnosis of anxiety symptoms in sports are prevented.

As mentioned above, the current study only measures symptoms of anxiety and depression. Future researches could possibly use structured diagnostic questionnaires to diagnose mental disorders to find reliable prevalence estimates of mental disorders among athletes. Moreover, it is necessary for future studies to find ways to distinguish between sport performance anxiety and general anxiety. It is an important factor in order to get a clearer picture of anxiety in sports.

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Appendix 1 – Information sheet

HÁSKÓLI ÍSLANDS

Heiti rannsóknar

Kvíði og þunglyndi hjá knattspyrnumönnum og viðhorf þeirra til þessara geðraskana.

Kæri þátttakandi!

Markmið rannsóknarinnar er að meta kvíða og þunglyndi hjá knattspyrnumönnum og viðhorf þeirra til kvíðaröskunar og þunglyndis. Rannsóknin er lokaverkefni Bjarka Björnssonar og Gunnlaugs Bjarnars Baldurssonar til BS prófs í sálfræði við Háskóla Íslands undir handleiðslu Halls Hallssonar, MS í íþróttasálfræði og Ragnars P. Ólafssonar, dósent í sálfræði við HÍ. Ragnar er jafnframt ábyrgðarmaður rannsóknarinnar (tölvupóstur: ragnarpo@hi.is sími: 5254502).

Þátttaka í rannsókninni felst í að fylla nafnlaust út spurningarlista um íþróttakvíða og almennan kvíða og þunglyndi auk spurningalista um viðhorf til kvíða og þunglyndis. Ekki er nauðsynlegt að svara öllum spurningum í spurningalistunum ef spurningar vekja vanlíðan á einhvern hátt eða óvíst er um svar. Þó er æskilegt rannsóknarinnar vegna og vinnslu hennar að sem flestum spurningum sé svarað eins nákvæmlega og unnt er. Listarnir eru alls fjórir með samtals 76 spurningum og tekur fyrirlögnin um 12 til 15 mínútur.

Þátttakendum er heimilt að hætta þátttöku hvenær sem er án útskýringa. Þátttakendur þurfa ekki að skrá neinar persónuaðgreinandi upplýsingar og verður því ekki hægt að rekja svör til einstakra þátttakenda. Ef niðurstöður rannsóknarinnar verða birtar í tímariti eða á ráðstefnu verður alltaf um ópersónugreinanlegar niðurstöður að ræða. Spurningalistar þátttakenda verða í vörslu Ragnars P. Ólafssonar í húsi Sálfræðideildar í HÍ. Gögnunum verður eytt í síðasta lagi fimm árum eftir að rannsókn lýkur.

Rannsóknin er unnin með samþykki Vísindasiðanefndar og hefur verið tilkynnt til Persónuverndar. Ef þú hefur spurningar um rétt þinn sem þátttakandi í vísindarannsókn eða vilt hætta þátttöku í rannsókninni getur þú snúið þér til Vísindasiðanefndar, Hafnarhúsinu, 2. hæð, Tryggvagötu 17, 101 Reykjavík. Sími: 551-7100, fax: 551-1444, tölvupóstfang: visindasidanefnd@vsn.stjr.is.

Með kveðju,

Bjarki Björnsson og Gunnlaugur Bjarnar Baldursson

Appendix 2 – Background questionnaire

Vinsamlegast fylltu út eftirfarandi:

1. Kyn: Karl ☐ Kona ☐

2. Hvaða ár ertu fædd/ur? _____

3. Hefur þú spilað með yngra landsliði í knattspyrnu? Já ☐ Nei ☐

4. Hefur þú spilað með A-landsliði í knattspyrnu? Já ☐ Nei ☐

5. A) Hefur þú verið frá vegna meiðsla síðustu viku? Já ☐ Nei ☐

   B) Ef þú svaraðir já við spurningunni fyrir ofan þá máttu svara þessari spurningu. Hversu margar æfingar misstir þú af í síðustu viku vegna meiðsla

   1-2 æfingar □ 3-4 æfingar □ 5 eða fleiri æfingar ☐

6. Merktu við viðeigandi svarmöguleika frá 1 til 7 eftir því hversu mikilvæg ástæðan er. **Mikilvægasta** ástæðan fær gildið **7**, næst mikilvægasta ástæðan fær gildið 6 og svo framvegis (minnst mikilvægasta ástæðan fær gildið 1). Vinsamlegast notaðu hverja tölu aðeins **einu sinni**.

   Af hverju æfir þú knattspyrnu?

   ____ Að halda mér í formi (auka hreysti)

   ____ Fjárhagsástæður

   ____ Skemmtilegt

   ____ Til að ná árangri

   ____ Vil skara fram úr

   ____ Þrýstingur frá öðrum

   ____ Annað _____

7. Hér eru fyrir neðan eru þrjár fullyrðingar, vinsamlegast lestu þær vel. Gerðu svo kross við þann svarmöguleika sem á best við þig. Það eru engin rétt eða röng svör. Svaraðu eins heiðarlega og þú getur og ekki dvelja of lengi við hverja spurningu.

		Aldrei	Mjög Sjaldan	Sjaldan	Hlutlaus	Oft	Mjög oft	Alltaf
1.	Kvíði getur haft jákvæð áhrif á frammistöðu mína í leikjum	1	2	3	4	5	6	7
2.	Ég nota aðferðir til að draga úr kvíða fyrir leiki	1	2	3	4	5	6	7
3.	Ég nota aðferðir til að auka kvíða fyrir leiki	1	2	3	4	5	6	7

Appendix 3 – Sport Anxiety Scale 2 in Icelandic

Margt íþróttafólk verður taugaóstyrkt á undan eða á meðan keppni stendur. Þetta á jafnvel við um atvinnumenn. Vinsamlegast lestu hverja spurningu vel. Gerðu svo kross við þann svarmöguleika sem lýsir því hvernig þér líður YFIRLEITT fyrir eða á meðan þú ert að keppa. Það eru engin rétt eða röng svör. Svaraðu eins heiðarlega og þú getur og ekki dvelja of lengi við hverja spurningu.

	Áður en eða á meðan ég keppi…	Alls ekki	Aðeins	Frekar mikið	Mjög mikið
1.	er erfitt að einbeita sér að leiknum	1	2	3	4
2.	er líkami minn uppspenntur	1	2	3	4
3.	hef ég áhyggjur af því að ég muni ekki spila vel	1	2	3	4
4.	er erfitt fyrir mig að einblína á það sem ég á að gera	1	2	3	4
5.	hef ég áhyggjur af því að bregðast öðrum	1	2	3	4

	Áður en eða á meðan ég keppi…	Alls ekki	Aðeins	Frekar mikið	Mjög mikið
6.	finn ég fyrir spennu í maganum	1	2	3	4
7.	missi ég einbeitingu á leikinn	1	2	3	4
8.	hef ég áhyggjur af því að eiga ekki minn besta leik	1	2	3	4
9.	hef ég áhyggjur af því að ég muni spila illa	1	2	3	4
10.	finnst mér vöðvarnir vera óstyrkir	1	2	3	4

	Áður en eða á meðan ég keppi…	Alls ekki	Aðeins	Frekar mikið	Mjög mikið
11.	hef ég áhyggjur af því að ég muni klúðra í leiknum	1	2	3	4
12.	finn ég fyrir ólgu í maganum	1	2	3	4
13.	get ég ekki hugsað skýrt	1	2	3	4
14.	finnst mér vöðvarnir stífir því ég er taugaspennt/ur	1	2	3	4
15.	á ég erfitt með að einbeita mér að því sem þjálfarinn segir mér að gera	1	2	3	4

Þýðing: Hallur Hallsson og Hallur Skúlason

Appendix 4 – Hospital Anxiety and Depression Scale in Icelandic

Vinsamlega krossaðu við það svar sem best á við þína líðan eins og hún var síðastliðna viku.

Að undanskilinni líðan sem tengist frammistöðu í keppni á keppnisdegi og á meðan þú keppir

1. Ég er uppspennt(ur) og taugatrekkt(ur):

   ( ) Næstum alltaf
   ( ) Oft
   ( ) Öðru hvoru, stundum
   ( ) Alls ekki

2. Ég nýt þess enn, sem ég var vön/vanur að gera:

   ( ) Ábyggilega eins mikið
   ( ) Ekki alveg eins mikið
   ( ) Aðeins að litlu leyti
   ( ) Varla nokkuð

3. Ég fæ einhvers konar hræðslutilfinningu eins og eitthvað hræðilegt sé að fara að gerast:

   ( ) Alveg örugglega og oft slæma
   ( ) Já, en ekki svo slæma
   ( ) Að litlu leyti, en ég hef ekki áhyggjur af því
   ( ) Alls ekki

4. Ég get hlegið og séð það skoplega í kringum mig:

   ( ) Eins mikið og áður
   ( ) Ekki alveg eins mikið núna
   ( ) Ábyggilega ekki eins mikið núna
   ( ) Alls ekki

5. Áhyggjur fara í gegnum hugann:

   ( ) Svo til stöðugt
   ( ) Mjög oft
   ( ) Öðru hvoru, en ekki svo oft
   ( ) Aðeins stöku sinnum

6. Ég er kát(ur):

   ( ) Alls ekki
   ( ) Ekki oft
   ( ) Stundum
   ( ) Svo til alltaf

7. Ég get setið róleg(ur) og slappað af:

   ( ) Alltaf
   ( ) Yfirleitt
   ( ) Ekki oft
   ( ) Alls ekki

8. Ég er seinni til hugsana og verka:

   ( ) Næstum alltaf
   ( ) Mjög oft
   ( ) Stundum
   ( ) Alls ekki

9. Ég finn til hræðslukenndar, fæ óróleikatilfinningu í magann:

   ( ) Alls ekki
   ( ) Öðru hvoru
   ( ) Nokkuð oft
   ( ) Mjög oft

10. Ég hef misst áhugann á því hvernig ég lít út:

    ( ) Alveg örugglega
    ( ) Ég hirði ekki um mig eins og ég ætti að gera
    ( ) Kannski hirði ég ekki um mig eins og ég ætti að gera
    ( ) Ég hirði jafn vel um mig og áður

11. Ég er óróleg(ur), eins og ég þurfi alltaf að vera að aðhafast eitthvað:

    ( ) Mjög mikið
    ( ) Þó nokkuð mikið
    ( ) Ekki svo mjög
    ( ) Alls ekki

12. Ég hlakka til þess sem framundan er:

    ( ) Eins mikið og áður
    ( ) Eitthvað minna en áður
    ( ) Örugglega minna en áður
    ( ) Eiginlega alls ekki

13. Ég fæ skyndilega ofsahræðsluköst:

    ( ) Mjög oft
    ( ) Nokkuð oft
    ( ) Ekki mjög oft
    ( ) Alls ekki

14. Ég get notið góðrar bókar eða skemmtilegs efnis í útvarpi eða sjónvarpi:

    ( ) Oft
    ( ) Stundum
    ( ) Ekki oft
    ( ) Mjög sjaldan

Appendix 5 – Depression Stigma Scale for depression and anxiety in Icelandic

*Spurningar **1 til 18** innihalda fullyrðingar um **þunglyndi**. Vinsamlegast tilgreindu hversu sterklega **þú persónulega** ert sammála eða ósammála hverri fullyrðingu.*

	Mjög ósammála	Frekar ósammála	Hvorki sammála né ósammála	Frekar sammála	Mjög sammála
1. Fólk með þunglyndi gæti rifið sig upp úr því ef það vildi					
2. Þunglyndi er merki um veikleika					
3. Þunglyndi er ekki raunverulegur sjúkdómur					
4. Fólk með þunglyndi er hættulegt					
5. Það er best að forðast fólk með þunglyndi til að verða ekki sjálf(ur) þunglynd(ur)					
6. Fólk með þunglyndi er óútreiknanlegt					
7. Ef ég væri með þunglyndi þá myndi ég ekki segja nokkrum manni frá því					
8. Ég myndi ekki vilja hafa einhvern í mínu liði sem ég vissi að hefði verið þunglynd(ur)					
9. Ég myndi ekki vilja hafa þjálfara sem ég vissi að hefði verið þunglynd(ur)					
*Nú viljum við fá að vita hvernig þú heldur að viðhorf **flestra annarra** til þunglyndis sé. Vinsamlegast tilgreindu hversu sammála eða ósammála þú ert eftirfarandi fullyrðingum.*					
	Mjög ósammála	Frekar ósammála	Hvorki sammála né ósammála	Frekar sammála	Mjög sammála
10. Flestir halda að fólk með þunglyndi gæti rifið sig upp úr því ef það vildi					
11. Flestir halda að þunglyndi sé merki um veikleika					

	Mjög ósammála	Frekar ósammála	Hvorki sammála né ósammála	Frekar sammála	Mjög sammála
12. Flestir halda að þunglyndi sé ekki raunverulegur sjúkdómur					
13. Flestir halda að fólk með þunglyndi sé hættulegt					
14. Flestir halda að það sé best að forðast fólk með þunglyndi til að verða ekki sjálf(ur) þunglynd(ur)					
15. Flestir halda að fólk með þunglyndi sé óútreiknanlegt					
16. Flestir myndu ekki segja frá ef þeir væru þunglyndir					
17. Flestir myndu ekki vilja hafa einhvern sem þeir vissu að hefði verið þunglynd(ur) í sínu liði					
18. Flestir myndu ekki vilja hafa þjálfara sem þeir vissu að hefði verið þunglyndur					

*Spurningar **1 til 18** innihalda fullyrðingar um **kvíðaröskun**. Vinsamlegast tilgreindu hversu sterklega **þú persónulega** ert sammála eða ósammála hverri fullyrðingu.*

	Mjög ósammála	Frekar ósammála	Hvorki sammála né ósammála	Frekar sammála	Mjög sammála
1. Fólk með kvíðaröskun gæti losað sig við hana ef það vildi					
2. Kvíðaröskun er merki um veikleika					
3. Kvíðaröskun er ekki raunverulegur sjúkdómur					
4. Fólk með kvíðaröskun getur verið hættulegt					

	Mjög ósammála	Frekar ósammála	Hvorki sammála né ósammála	Frekar sammála	Mjög sammála
5. Það er best að forðast fólk með kvíðaröskun til að verða ekki sjálf(ur) kvíðin(n)					
6. Fólk með kvíðaröskun er óútreiknanlegt					
7. Ef ég væri með kvíðaröskun myndi ég ekki segja nokkrum manni frá því					
8. Ég myndi ekki vilja spila með einhverjum sem ég vissi að hefði kvíðaröskun					
9. Ég myndi ekki vilja hafa þjálfara sem ég vissi að hefði kvíðaröskun					

*Nú viljum við fá að vita hvernig þú heldur að viðhorf **flestra annarra** til kvíðaröskunar sé. Vinsamlegast tilgreindu hversu sammála eða ósammála þú ert eftirfarandi fullyrðingum*

	Mjög ósammála	Frekar ósammála	Hvorki sammála né ósammála	Frekar sammála	Mjög sammála
10. Flestir halda að fólk með kvíðaröskun gæti losað sig við hana ef það vildi					
11. Flestir halda að kvíðaröskun sé merki um veikleika					
12. Flestir halda að kvíðaröskun sé ekki raunverulegur sjúkdómur					
13. Flestir halda að fólk með kvíðaröskun geti verið hættulegt					
14. Flestir halda að það sé best að forðast fólk með kvíðaröskun til að verða ekki sjálf(ur) kvíðin(n)					
15. Flestir halda að fólk með kvíðaröskun sé óútreiknanlegt					
16. Flestir myndur ekki segja frá ef þeir væru með kvíðaröskun					

	Mjög ósammála	Frekar ósammála	Hvorki sammála né ósammála	Frekar sammála	Mjög sammála
17. Flestir myndu ekki vilja hafa einhvern sem þeir vissu að hefði kvíðaröskun í sínu liði					
18. Flestir myndu ekki vilja hafa þjálfara sem þeir vissu að hefði kvíðaröskun					

Þýðing: Hallur Hallsson og Ragnar P. Ólafsson

Appendix 6 – Questions related to help-seeking

1. Vinsamlegast lestu fullyrðinguna hér fyrir neðan vel. Gerðu svo kross við þann svarmöguleika sem á best við þig. Það er ekkert rétt eða rangt svar. Svaraðu eins heiðarlega og þú getur.

	Mjög erfitt	Erfitt	Hvorki auðvelt né erfitt	Auðvelt	Mjög auðvelt
Hversu auðvelt/erfitt þætti þér að leita aðstoðar ef þú glímdir við **kvíðavanda**?	1	2	3	4	5

2. Merktu við viðeigandi svarmöguleika frá 1 til 7 eftir því hversu líklegur möguleikinn er. **Líklegasti** möguleikinn fær gildið 7, næst líklegasti möguleikinn fær gildið 6 og svo framvegis (ólíklegasti möguleikinn fær gildið 1). Vinsamlegast notaðu hverja tölu aðeins **einu sinni.**

   Ef þú glímdir við **kvíðavanda** og myndir vilja leita þér aðstoðar, hvert myndir þú líklegast leita?

   ____ Fjölskyldu eða vinar

   ____ Heimilislæknis

   ____ Íþróttasálfræðings

   ____ Liðsfélaga

   ____ Sálfræðings

   ____ Þjálfara

   ____ Annað _____

3. Vinsamlegast lestu fullyrðinguna hér fyrir neðan vel. Gerðu svo kross við þann svarmöguleika sem á best við þig. Það er ekkert rétt eða rangt svar. Svaraðu eins heiðarlega og þú getur.

	Mjög erfitt	Erfitt	Hvorki auðvelt né erfitt	Auðvelt	Mjög auðvelt
Hversu auðvelt/erfitt þætti þér að leita aðstoðar ef þú glímdir við **þunglyndi**?	1	2	3	4	5

4. Merktu við viðeigandi svarmöguleika frá 1 til 7 eftir því hversu líklegur möguleikinn er. **Líklegasti** möguleikinn fær gildið 7, næst líklegasti möguleikinn fær gildið 6 og svo framvegis (ólíklegasti möguleikinn fær gildið 1). Vinsamlegast notaðu hverja tölu aðeins **einu sinni.**

   Ef þú glímdir við **þunglyndi** og myndir vilja leita þér aðstoðar, hvert myndir þú líklegast leita?

   ____ Fjölskyldu eða vinar

   ____ Heimilislæknis

   ____ Íþróttasálfræðings

   ____ Liðsfélaga

   ____ Sálfræðings

   ____ Þjálfara

   ____ Annað _____