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DETERMINANTS OF THE PROLONGATION OF THE YIPS IN GOLFERS: THE ROLES OF SOCIAL SUPPORT AND OVERCOMMITMENT TO SPORT

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Abstract The yips are the loss of automated and finely controlled motor behavior in sport, affecting many golfers. Although studies have examined their causes and treatment, the social and psychological factors that contribute to their duration in golfers remain unknown. This study examined whether overcommitment and social support are related to prolonged symptoms of yips. Participants included 54 yips-affected golfers who completed measures to identify those who were overcommitted and explore their experiences with the yips and social support. Although there was a significant relationship between prolonged symptoms of the yips and overcommitment, social support was not related to its duration. These results contribute to the understanding of the prolongation of the yips in golfers and may apply to players in other sports.

Key words movement disorder, social support, overcommitment, golf, multiple logistic regression analysis

Introduction

Many golfers globally are affected by a movement disorder known as the yips (Heron, Bilalić, 2022). The yips influence the execution of automated and finely controlled motor behavior in sports, such as golf, baseball, table tennis, petanque, darts, and cricket (Bawden, Maynard, 2001; Clarke, Sheffield, Akehurst, 2015; Lenka, Jankovic,

2021). Although yips in golf occur during putting (Philippen, Lobinger, 2012), they have also been observed in driving and chipping (McDaniel, Cummings, Shain, 1989). The yips symptoms in golf include jerks, tremors, and freezing of the stroke (Smith et al., 2000). Smith et al. (2003) reported "The yips phenomenon can be a source of frustration and cause people to give up the game." Estimates of the prevalence of the yips in golf vary considerably. One survey of golfers revealed that, among the 441 respondents, 123 (28%) had the yips (McDaniel et al., 1989). A later survey found that 453 (53.5%) of 846 golfers acknowledged previously having the yips (Smith et al., 2000).

Due to the high risk and prevalence of the yips, research has focused on their etiology – primarily potential psychological and neurological factors – and treatment strategies. Identification of psychological factors, including choking under pressure (Bawden, Maynard, 2001), perfectionism (Roberts, Rotheram, Maynard, Thomas, Woodman, 2013), and reinvestment (Klämpfl, Lobinger, Raab, 2013), led to studies of psychological treatments demonstrating the effectiveness of solution-focused guided imagery (Bell, Thompson, 2007; Bell, Skinner, Fisher, 2009), emotional freedom techniques (Rotheram, Maynard, Thomas, Bawden, Francis, 2012), and cognitive behavior therapy (Milne, Morrison, 2015). Associated neurological factors comprise dystonia (Ioannou, Klämpfl, Lobinger, Raab, Altenmüller, 2018), cramping (Sachdev, 1992), and tremors (Dhungana, Jankovic, 2013). Research on neurological treatment strategies includes botulinum toxin injections (Dhungana, Jankovic, 2013), N-methyl-D-aspartate receptor antagonist drugs (Ringman, 2007), acupuncture (Rosted, 2005), self-instruction (Lobinger, Klämpfl, Altenmüller, 2014), relaxation (Lobinger et al., 2014), and performance routines (Lobinger et al., 2014).

Symptoms of the yips can be very serious and chronic (Bawden, Maynard, 2001; Lobinger et al., 2014); therefore, it is crucial to clarify their etiology to prevent the onset of symptoms and develop treatment strategies. However, it is equally important to shed light on why athletes developing the condition take such a long time to improve by identifying factors related to its prolongation. Determining the causes related to the yips' duration is of paramount importance for various reasons. Researchers (e.g., Kudo, 2008) have revealed an etiological phenomenon wherein the excessive repetition of a movement in a sport leads to the fusion of parts of the sensorimotor cortex with neighboring areas of the cerebral cortex. However, it is essential for golfers to repeat movements and train iteratively to become elite athletes, win championships, and generally improve their skills. Philippen (2012) found that golfers also engaging in racquet sports, such as tennis and badminton, may overuse their hands and arms in those activities, possibly triggering development of the yips. This finding suggests that the development of the yips may involve unavoidable movements and behaviors both related and unrelated to golf. Moreover, baseball players affected by the yips have reported being humiliated by their peers when they miss a throw or throw wildly, triggering the development of affliction (Mukai, 2016). Therefore, the yips' development may involve the response or assessment of a mistake related to performance in the sport.

Considering the existing research findings on the etiology and prevalence of the yips, all golfers are at risk of suddenly developing the condition. Indeed, when golfers first suffer the yips, they report that it happens suddenly (Bawden, Maynard, 2001). Consequently, it is imperative to not only verify the etiology and treatment strategies of the yips, but also explore the factors involved in its prolongation, given that athletes who develop the condition may suffer from severe symptoms for a long period of time (Bawden, Maynard, 2001; Lobinger et al., 2014). Clarifying these factors will enable concrete measures to deal with the yips because improving these factors may help to improve the condition.

Although previous research has been conducted on the etiology and treatment strategies of the yips, only two studies have explored factors related to the yips' prolongation. Psychological factors such as attentional narrowing

(Mukai, Koga, 2017) and holding onto various things, such as the defensive (positions in baseball) and pulled-back position in throwing (Mukai, Koga, 2019), have been shown to prolong the yips. However, each study only included 15 baseball players. Consequently, it is imperative to conduct research on the yips' prolongation in golf because many players have been affected by it.

Mukai and Koga (2017, 2019) demonstrated that various psychological factors affect the yips' prolongation, suggesting that golfers' attitudes toward golf are relevant to the possible relationship between psychological factors and prolongation. Some golfers are high attached to golf and are unwilling to quit it. When these golfers develop the yips and are suddenly unable to perform movements they have always done competently, one may assume that this will have an adverse effect on them, and they will take it seriously. Furthermore, they may find it impossible to adaptively cope with the yips, thus leading to its prolongation. Consequently, the present study examined overcommitment, which refers to the psychological characteristics of individuals who are overly devoted to specific things, to explore whether a golfer's attitudes, thoughts, and relationship to golf are related to the yips' prolongation. Joksimovic et al. (1999) defined overcommitment as "a set of attitudes, behaviors, and emotions reflecting excessive striving in combination with a strong desire to be approved and esteemed." Tsutsumi et al. (2008) revealed that individuals characterized as being overcommitted tend to dedicate themselves to work activities and amplify their efforts beyond what is normally considered appropriate. Regardless of their abilities, states, and conditions, overcommitted individuals exhibit excessive effort or commitment to acquiring a high evaluation from their peers. Additionally, overcommitment to work is known to cause musculoskeletal pain (Joksimovic, Starke, Knesebeck, Siegrist, 2002), burnout (Bakker, Killmer, Siegrist, Schaufeli, 2000), depression, and cardiovascular disease (Peter et al., 1998).

Overcommitment has also been explored in sports psychology (e.g., Yates, Shisslak, Crago, Allender, 1994). Maladjustments, including eating disorders, psychosomatic disorders, and burnout, in athletes have been linked to overcommitment (Heidari, 2013; Matsui, 2015a; Shisslak, Crago, 1999). Yips-affected athletes have expressed excessive concern about others' evaluations; one athlete related, "I was too worried about what others were thinking and not worrying about myself" (Bawden, Maynard, 2001). Rotheram (2007) found that athletes tended to exemplify their excessive commitment to sport by asserting that they were obsessed with their particular sport. Furthermore, Silva (1994) revealed that baseball players' overcommitment may continue after development of the yips; they fear throwing and are unable to sleep at night as they ruminate on their performances and recall pitches when trying to sleep.

In light of these studies, we hypothesized that a high overcommitment tendency could prolong the yips. Such reactions and assessments from others of an athlete's performance may be factors in development of the yips, because the environment may play a key role in how yips-affected athletes cope with the affliction. Thus, if every mistake made by athletes with the yips is met by harsh criticisms and/or negative responses from coaches and teammates, the athletes may find themselves in a vicious cycle that may exacerbate and prolong the yips' symptoms, whereas adaptive environments in which coaches and teammates accept and support yips-affected athletes may facilitate or positively affect their recovery. Hence, we also explored social support in this study. This concept encompasses various forms of aid and assistance provided by those in the athletes' surroundings (Barrera, Sandler, Ramsay, 1981). Studies have demonstrated that social support is important to health maintenance and recovery from illness and injury (Bianco, 2001). Hence, the present study examined the potential relationships

between the yips' prolongation for golfers and their social support (from coaches, other golfers, friends, and family) and between prolongation and overcommitment to the sport.

However, no universal definition of the yips has been established, possibly because of the affliction's numerous related factors. Divergent descriptions exist, including "a psycho-neuromuscular impediment affecting the execution of fine motor skills during sporting performance" (Clarke et al., 2015), "jerks, tremors, or a freezing of the putting stroke, which at the very least can add several strokes per round of golf" (Bell, Thompson, 2007), and "a movement disorder such that movements one has been able to do can no longer be performed because of psychological factors" (Shinmura, 2018). In this study, the yips are defined as a long-term movement disorder occurring in the execution of automated and finely controlled motor behavior in a sport, due to multiple etiological factors, such as psychological and neurological factors.

Material and methods

Participants

We asked representatives of several golf organizations (association staff, team assistants, and captains) to recruit golfers, and 346 professional and amateur male golfers responded to three study questionnaires and one demographic questionnaire. However, 37 were excluded for incomplete questionnaires, leaving a total of 309 golfers (age, 16–75 years, mean = 35.89, standard deviation [SD] = 14.24; golf experience, mean = 21.66 years, SD = 11.18).

Of the 309 golfers, those included in the analysis were selected by the following procedures. According to our definition of the yips and the criteria established by Sachdev (1992) and Roberts et al. (2013), we developed five inclusion criteria: (1) at least five years of experience playing golf; (2) apparent abnormalities, e.g., spasm, jerk, tremor, and/or freezing of movement when executing fine golfing strokes, such as putting and chipping; (3) a sudden inability to perform a motion that was previously very natural; (4) symptoms had continued for at least 1 year; and (5) noted abnormalities in the execution of fine golfing strokes were not the result of an obvious physical disability or sports injury. The responses to the four questionnaires were used to determine whether these five criteria were satisfied. Accordingly, 54 (17%) of the 309 golfers had the yips; 233 golfers who did not develop the yips and 22 other golfers who did not meet the inclusion criteria were excluded. Biometrical and yips-related data of the 54 golfers are presented in Table 1. Among these, we analyzed the data of those in the top 25% (long-term yips-affected group; n = 14) and bottom 25% (short-term yips-affected group; n = 13) according to the number of years they had the yips (Table 1). It should be emphasized that, although the golfers were divided into short-term and long-term yips-affected groups, to distinguish between those with short-term and long-term effects clearly, only those with the shortest and longest experiences were targeted for analysis.

Table 1. Biometrical and the yips-related data of golfers with long-term and short-term effects

Group	N	Age, years Mean (SD)	Golf experience, years Mean (SD)	Duration of the yips years Mean (SD)
All yips-affected golfers	54	36.70 (13.70)	23.41 (10.14)	5.24 (5.32)
Long term yips-affected group	14	41.64 (10.43)	17.79 (8.27)	12.43 (5.73)
Short term yips-affected group	13	34.77 (16.65)	21.46 (11.95)	1.04 (0.09)

SD, standard deviation.

Measures

All the respondents were required to answer three questionnaires: (1) a survey about the yips, (2) a scale of overcommitment to sport, and (3) a social support survey. They also completed a demographic survey related to their golf experience: years of experience, starting age, competition level, and medical-related issues, including experiences of neurological disorders (i.e., dystonia, Parkinson's disease), hospital visits, and medications they have taken to treat psychiatric illnesses.

Questionnaire on the yips

The first questionnaire assesses whether the participants had the yips by asking about experiences with symptoms, such as a sudden inability to synchronize their body and mind, spasms, freezing, and inability to control the ball. Those who responded in the affirmative provided written responses to further questions related to the yips, including their age when they developed the yips, specific symptoms, level of golf skill when symptoms first occurred, duration of the yips, degree of suffering from the condition, causes of its development, and how they coped with the affliction.

The scale of overcommitment to sport

We adapted a scale developed by Matsui (2015b) to measure the tendency of excessive commitment to golf-related extracurricular activities by substituting the single word *golf* for *extracurricular activities* in the survey. The revised scale comprises one factor and six items, which the respondents assess on a scale from 1 (*not applicable at all*) to 5 (*very applicable*). An example item is "I want to make time for golf even if I cut back on time for other things in my life." Total scores range from 6 to 30, with higher scores indicating a greater tendency for overcommitment. Because we changed the wording and content of some of Matsui's (2015b) scale items, we confirmed the factorial structures and reliability of the scale. First, exploratory factor analyses confirmed the one-factor structure following the original scale development study that deemed it reliable with Cronbach's α of 0.81 (Matsui, 2015b). In the present study, reliability was confirmed with Cronbach's α of 0.87. The results indicated that the factor structure and internal consistency were appropriate.

Social support scale

Fukuoka's (1997) scale measures the amount of social support an individual receives from people around them. We modified its wording to develop a nine-item scale aligned with the present study's subject and purpose. The nine items focus on social support in various situations, such as "When I am depressed, someone cheers me up," assessed on a scale from 1 (*not applicable at all*) to 5 (*very applicable*). Total scores range from 9 to 45; higher scores mean more perceived support from their peers. The factorial structure of the revised scale was verified using exploratory factor analysis; the one-factor structure of Fukuoka's (1997) study was confirmed. Cronbach's α was 0.80 for Fukuoka's scale and 0.95 for the scale we adapted for this study. The results revealed that the factor structure and internal consistency were appropriate.

Procedures

We provided information about the study's purpose, protection of the participants' personal information, and an overview of the yips to the golfers before administering the surveys. Furthermore, participants were advised that they could withdraw from the study at any stage. Those who gave their informed consent and understood the study and the yips were asked to participate. To administer the questionnaire, the first author and a survey collaborator under the author's direction employed the collective survey method. To ensure the collection of a sufficient amount of data, we administered surveys from 2018 through 2019 to golfers who had the yips and met the inclusion criteria.

Analysis

We used multiple logistic regression analysis to evaluate the extent to which overcommitment and social support predicted the yips' prolongation in golfers; $p \leq 0.05$ was considered statistically significant. The models' goodness of fit was assessed by employing the Hosmer-Lemeshow Test, Cox and Snell's R^2 square, and Negelkerke's R^2. Given that the dependent variables were categorical, data distribution normality was not tested.

Ethical considerations

This study was conducted in accordance with the tenets of the Declaration of Helsinki. Ethical clearance was not sought because the sample population comprised healthy individuals without mental issues and data were gathered using a short, low-burden questionnaire survey (15-min completion time). The survey was administered only after obtaining informed consent from the participants, which included: 1) responses are voluntary and freedom of participation is guaranteed; 2) the survey is anonymous and the respondent will not be identified; 3) there will be no disadvantage if the respondent refuses to answer or discontinues the survey; 4) the data obtained will not be used for any purpose other than research and will be quantified after collection, with no personal information disclosed; 5) the data will be stored and managed appropriately by the principal investigator; and 6) if the participant complains of mental illness during or after the study, a clinical psychologist or psychiatrist will be consulted.

Results

The results from the logistic regression revealed that the predictors of the full model were significant, $\chi^2(2.27) = 6.47$, $p = 0.03$, indicating that the model was able to distinguish golfers who had the yips for a long time from those afflicted for a short period. The model explained between 21.3% (Cox and Snell's R^2) and 28.4% (Nagelkerke's R^2) of the variance in the rate of the prolongation of the yips and correctly classified 70.4% of the cases. Furthermore, the Hosmer-Lemeshow test indicated a good model fit to the data ($\chi^2(7) = 6.52$, $p = 0.48$). In Table 2, the regression coefficients (β), standard error (SE), Wald statistics, significance level, odds ratio [Exp(β)], and 95% confidence intervals for the odds ratio for each predictor are presented. As shown in Table 2, an examination of the predictors/independent variables revealed that although overcommitment was significant (β = 0.18, Wald(1) = 4.19, $p = 0.04$, Exp(β) = 1.20), social support was not significant (β = –0.03, Wald(1) = 0.43, $p = 0.50$, Exp(β) = 0.96). Consequently, the possibility of predicting the prolongation of the yips in golf was only demonstrated by overcommitment. Biometrical and yips-related data for each group are displayed in Table 2.

Table 2. Logistic regression analysis predicting likelihood of prolongation of the yips in golfers

Predictor	β	*SE*	Wald	*p* Value	Exp (β)	95% CI for Exp(β)
Overcommitment	0.18	0.08	4.19	0.04	1.20	1.00 to 1.42
Social Support	–0.03	0.05	0.43	0.50	0.96	0.86 to 1.07
Constant	–2.71	2.74	0.98	0.32	0.06	

Hosmer-Lemeshow Test: Chi-sqare = 6.47, p = 0.03; Cox and Snell R^2 = 0.21; Nagelke R^2 = 0.28.

β = regression coefficient; the mathematical weightings of the explanatory variables in the equation.

SE = standard error; estimated precision of the coefficients.

CI = confidence interval.

Wald = Test statistic for testing whether the partial regression coefficient is 0 or not and a large value of Wald means that the hypothesis is rejected.

Discussion

In the present study, multiple logistic regression analysis was performed to clarify the factors associated with the yips' prolongation in golf. While the dependent variable was the prolongation of the yips in golf (long-term and short-term yips-affected groups), overcommitment and social support were the independent variables. The results revealed that, although overcommitment significantly predicted the yips' prolongation in golf, social support was not significant.

First, the main findings show that golfers with higher tendencies toward overcommitment to golf exhibited excessively strong thoughts about golf, such as "If I were to quit golf, I would not find any meaning in life," "The center of life is golf," and "I am not interested in anything other than golf," and are likely to suffer relatively long-term yips' symptoms. For golfers who have higher tendencies toward overcommitment to golf, upon developing the yips and being unable to perform as before, or if they get a sense of crisis indicating they may not be able to continue playing golf, they will not give up immediately but will try to improve the dysfunctions caused by the yips at all costs. Seeking improvement, they naturally go through a variety of trials and errors. Previous studies have shown that yips-affected golfers will search for any way to somehow overcome the yips (Marquardt, 2009) by engaging in more training or practice (Oikawa, 2019). In this process, they tend to be excessively attentive to, or try to consciously control, automated movements (Bennett, Rotherham, Hays, Olusoga, Maynard, et al., 2016; Masters, Maxwell, 2008). Hence, it can be inferred that these tendencies are particularly strong among golfers with high tendencies toward overcommitment to golf.

Additionally, prior research has suggested that individuals characterized as "overcommitted" tend to dedicate themselves to work activities and amplify their efforts beyond what is normally considered appropriate (Tsutsumi et al., 2008). Furthermore, rather than overcoming the yips, increased training and practice and excessive attention to movements often exacerbate the yips' symptoms (Marquardt 2009; Oikawa, 2019).

Given that neurological factors may be involved in the yips' development (Ioannou, Klämpfl, Lobinger, Raab, Altenmüller, 2018; Lenka, Jankovic, 2021), an imbalance between physical and mental fatigue, excessive attention to movements impaired by the yips, and increased practice times may trigger an exacerbation of contributing neurological problems. Thus, the yips' symptoms are prolonged. Essentially, overcommitment to a sport may

trigger a neurological response making yips-affected athletes overly conscious of their movements or encouraging excessive practice, thereby further prolonging the yips.

These theories could explain the relationship between the yips' prolongation and overcommitment to golf. Previously, overcommitment was shown to be associated with greater levels of anxiety and depression (Mark, Smith, 2012). More importantly, other studies indicated that psychological factors, such as anxiety, embarrassment, fear, frustration, insecurity, shame, and stress potentially exacerbate the symptoms and dystonia associated with the yips (Bawden, Maynard, 2001; Bennett, Hays, Lindsay, Olusoga, Maynard, 2015; Byl, 2004; Jetjumnong, Norasetthada, 2022; Marquardt, 2009; Sachdev, 1992; Smith et al., 2003). Similarly, Bennett et al. (2015) reported that continued negative emotions relating to the yips eventually lead to Lost Move Syndrome (e.g., fear, embarrassment, frustration) in addition to increased feelings of self-hatred, self-doubt, and a loss of confidence. Additionally, Bell et al. (2009) reviewed previous studies on psychophysiological models and highlighted that the fear, anxiety, worry, and perceived threat accompanying the yips can lead to a negative cycle of doubt and muscle tension that also may prolong the symptoms. These findings infer that those golfers with higher tendencies toward overcommitment to golf may have prolonged the yips' symptoms. From a different vantage, the association between the yips' prolongation and overcommitment seen in the present study suggests that golfers who are less inclined to overcommit to golf are less likely to suffer from prolonged yips' symptoms and their symptoms may improve more quickly compared to those who are likely to overcommit.

Studies of the yips in golfers have shown that some athletes who removed themselves from the game for some time experience improved symptoms (e.g., Marquardt, 2009). Mukai (2016) argues that when athletes have the yips, repeatedly performing the movements in which the symptoms are appearing may worsen the symptoms. Moreover, Mukai (2016) mentions that athletes can relax their minds and improve their yips by temporarily stopping the movements during which the yips symptoms appear. Considering these previous studies, temporary physical or psychological separation from the sport or the movement in which the symptoms of the yips are appearing may be a way to avoid the yips. Attempts to overcome the yips, such as undergoing cognitive behavior therapy (Milne, Morrison 2015), participating in psychological education programs with image instruction (Solution-Focused Guided Imagery: Bell, Thompson 2007; Bell et al., 2009), changing clubs, and modifying one's swing, may be crucial. However, when the yips' symptoms emerge, it may also be important for athletes to temporarily forget about the sport or the yips by becoming immersed in other hobbies or activities or to work hard on improving skills that could help avoid the symptoms to appear, or removing themselves physically and mentally from the sport or the movements that provoke the symptoms. Conversely, many studies have shown that commitment to sport plays an essential role in improving sporting skills, abilities, and motivation (Casper, Andrew, 2008; Chu, Wang. 2012; Hollenbeck, Williams, Klein, 1989; O'Neil, Hodge, 2020; Woods, Dunne, McArdle, Gallagher, 2020). Therefore, while an adaptive commitment to golf is important and beneficial, it is speculated that excessive commitment may reduce mental comfort, narrow perspectives, narrow the range of options for dealing with the yips, and increase the likelihood of prolonged yips.

Another key finding was that there was no significant relationship between social support and yips' prolongation in the golfers. While these findings may simply suggest that support from coaches, other golfers, friends, and family are not significant influential factors in prolonging or early improvement of the yips, other rationales can be deduced from these findings. First, we speculate that specific golf characteristics may be involved. Unlike team sports, such as baseball and soccer, golf is an individual sport. Essentially, a golfer practices and may play games alone, without

belonging to a specific team or organization. Many professional golfers do not have a specialist coach but may spend their days polishing their skills on their own by practicing and playing games. Therefore, even if they develop the yips, many golfers may not receive sufficient social support and may spend days struggling on their own. Additionally, because there are few experts with a wealth of knowledge about the yips to provide sufficient support to help golfers with it, golfers may find it difficult to find someone who can respond to their needs even if they want to seek advice or support for the condition.

For example, if a person who lacks knowledge about the yips interacts inappropriately with yips-affected athletes, the yips' symptoms may worsen or be prolonged. Several previous studies have shown that either psychological factors (anxiety, embarrassment, shame) or excessive attention to movements with symptoms of the yips can exacerbate these symptoms (Bennett et al., 2016; Smith et al., 2003). It can be inferred that inappropriate interactions by those who lack knowledge of the yips, even if the interactions are intended to help yips-affected athletes, can promote factors that may exacerbate the symptoms. Therefore, it is insufficient to simply receive support from coaches, other athletes, friends, and family; however, if they do not receive appropriate support from those who have sufficient knowledge about the yips, the improvement of the yips' symptoms may not be accelerated.

There was no difference in social support between the long-term and short-term yips-affected groups. Future researchers should conduct intervention studies with yips-affected athletes in various sports to clarify the relationship between social support and the yips' prolongation and determine if there is a difference in the duration of the yips' symptoms between athletes who receive appropriate support and those who do not. Additionally, we used Fukuoka's (1997) scale that measures the amount of social support an individual receives from people around them; however, this scale was originally developed to measure support in daily life and not in sports. Therefore, it is highly likely that this scale cannot properly measure the amount of social support that yips-affected golfers received from surrounding athletes and coaches in the present study.

Conclusions

Although the results of this study revealed no significant relationship between social support and the duration of the yips' symptoms, there was a significant relationship between prolonged symptoms and overcommitment. Golfers who exhibit a higher tendency of overcommitment to golf tend to have relatively long-term yips' symptoms, while those who do not tend to overcommit are unlikely to have the yips for prolonged periods and/or tend to see improvement in their symptoms. Such knowledge about the relationship between overcommitment and the yips' prolongation can help elucidate how to cope with the yips. In other words, excessive commitment to sports may prolong the appearance of symptoms. Thus, as a countermeasure, suppressing excessive commitment to sports may improve the yips' symptoms.

Moreover, because the yips are a movement disorder with severe chronic symptoms that are not easily completely cured, one may assume that athletes who develop the yips could be successful if they accept it and consciously think they can still perform. Therefore, they may try various coping methods and physically and mentally force themselves to recover quickly and completely. However, because of their enthusiasm for a prompt and complete cure of the yips, excessive awareness of their swing or repeated changes may exacerbate the yips' symptoms and prolong the condition. Therefore, it may be necessary to stop playing the particular sport shortly after the yips' symptoms appear, play other sports occasionally, and/or become immersed in a hobby to manage the yips

successfully. Future research is recommended to clarify the factors prolonging could yips and apply the knowledge obtained to implement effective interventions to improve and treat the yips.

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