

# Presence of and Impairment from Obsessions and Compulsions in Athletes



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## Introduction

Obsessive-compulsive disorder (OCD) is a psychological disorder characterized by the presence of intrusive, troubling thoughts (obsessions), and repetitive, ritualistic behaviors (compulsions) (American Psychiatric Association, 2000). The purpose of repetitive, ritualistic behavior is to reduce anxiety caused by unwanted, intrusive obsessional thinking. Individuals diagnosed with OCD can experience obsessions, compulsions, or both which are time consuming, significantly impair functioning and/or cause distress. It can result in disruptions to sleep (Storch et al., 2008), decrease in overall quality of life (Lack et al., 2009), and impairments in social functioning (Piancentini et al., 2007).

Little is known, however, about OCD symptoms in a population that may be particularly susceptible to them: athletes. In the past, there have been several cases of top-tier athletes having to withdraw from Olympic competitions and collegiate sports due to debilitating OCD symptoms (Aldhous, 2009; Moore, 1999). In addition, numerous sports stars such as Wade Boggs, Curtis Martin, and Kolo Toure report having to engage in various rituals either before or during competition, and David Beckham has been very public about his diagnosis of OCD and the resultant impairment it causes him in daily life. Unfortunately, no research has examined the presence of OCD symptoms and their resultant impairments in athletes.

Entering into this study we had two hypotheses. The first was that athletes are at greater risk for displaying OCD symptoms than are non-athletes. Our second hypothesis was that athletes with OCD would have a different level of functional impairment and quality of life than non-athletes with OCD.



## Method

### Participants

Five-hundred and five college students enrolled in undergraduate courses at the University of Central Oklahoma and the University of Florida participated in this study for course credit. Twenty-seven participants did not meet the age criteria for this study (17-25), and were not included in the data analysis. The relevant data included 478 participants (142 male, 336 female). Of these, 148 were college level athletes (Junior college, NCAA Division I, II, or III) and the remaining 330 were non-athletes. The majority of participants were Caucasian (59%), African American (13.8%), and Hispanic/Latino (10.3%), with inclusion for Asian/Pacific Islanders and Native Americans at 9.2% and 4.2%, respectively. Participants were predominantly Freshman (52.9%), followed by Sophomores (25.9%), Juniors (12.1%), and Seniors (8.6%).

### Measures

Participants completed a series of online questionnaires via a secure website. Participants completed a Demographic Questionnaire, which included questions regarding sports participation, the Obsessive Compulsive Inventory (OCI-R), a self-report scale for measuring symptoms of OCD (Foa et al., 2002); the Florida Obsessive Compulsive Index (FOCI) which measures presence and severity of OCD symptoms (Storch et al., 2007), and the Sheehan Scale (SDS), a measure of disruption and impairment of various areas of life (Sheehan, Harnett-Sheehan, & Rag, 1996).

### Procedure

Before data collection began, the University of Central Oklahoma (UCO) Institutional Review Board reviewed and approved the study. Volunteers were recruited from undergraduate courses at the University of Central Oklahoma and the University of Florida. Each participant received either one participation credit, a partial requirement for the course, or extra credit. Participation took place online via a secure website. Completion took approximately 1 hour.

## Results

### Obsessive Compulsive Inventory (OCI-R)

The OCI-R has a range of scores from 0 to 72. The average OCI-R total score for non-athletes was 15.04 (SD = 10.43) and for athletes was 14.78 (SD = 10.33). A score of 21 or above is considered to be diagnosable for Obsessive Compulsive Disorder, with the average for persons diagnosed as having OCD being a 28. Of the total sample, 24.5% scored above the OCI-R cutoff score (24.5% of non-athletes, 24.3% of athletes).

### Florida Obsessive Compulsive Inventory (FOCI)

For part B of the FOCI, the range of scores is 0 to 20. Higher scores correspond with higher severity of symptoms (Storch, et al., 2007). The average FOCI total score for athletes was 3.32 (SD = 3.76) and for non-athletes was 3.22 (SD = 3.78).

### Sheehan Scale (SDS)

SDS scores can range from 0 to 30, with higher scores indicating greater impairment (Sheehan, et al., 1996). The average SDS total score for athletes was 3.00 (SD = 5.29) and for non-athletes was 3.28 (SD = 5.39).

### Differences between Athletes & Non-Athletes

In order to examine the potential differences between college level athletes and non-athletes on OCD symptoms and levels of impairment, a series of independent *t*-tests were run. Analyses revealed no significant differences between the groups on either OCI-R total ( $t(476) = .255, p < .799$ ), FOCI total score ( $t(476) = -.266, p < .790$ ), or SDS total score ( $t(476) = -.541, p < .589$ ). As such, our hypothesis that athletes would show greater amounts of OCD symptoms was not supported.

To test our second hypothesis, we split the total sample, conducting analyses on only those participants who had a clinically significant elevation on the OCI-R (a score of  $>21$ ), which resulted in a sample of 81 non-athletes and 36 athletes. Analyses revealed no significant difference between groups on OCI-R total score ( $t(115) = .141, p < .888$ ), FOCI total score ( $t(115) = -.292, p < .771$ ), or SDS total score ( $t(115) = -.017, p < .986$ ). As such, our hypothesis that athletes with OCD would show greater impairment was not supported.

## Discussion

Results indicate that athletes are no more likely to display symptoms of Obsessive Compulsive Disorder than are non-athletes. Additionally, results did not support a difference in functional impairment or quality of life between athletes with clinically significant levels of Obsessive Compulsive Disorder symptoms and non-athletes with the same. Both of these findings were inconsistent with our hypotheses.

A limitation of the current study is the web-based nature of the study, which did not allow for regulated testing conditions. However, this also allowed for data to be collected at more than one university in a relatively short period of time. Also, although almost a quarter of participants reported being involved in college-level athletics, there was not external confirmation of this information. Finally, full diagnoses of OCD were not verified by mental health clinicians, but groups were instead based on self-report scores. Nonetheless, the large sample size, across multiple universities, allows for greater generalization than many study designs. Also, research shows that persons taking web-based questionnaires report similar levels of psychiatric symptoms to persons taking pencil and paper measures in a controlled environment.

Future research may want to examine if these findings generalize to professional, semi-professional, or Olympic level athletes. These results, however, seem to be good news for college athletes, in that the presence of OCD symptoms and impairments is no greater than in the normal college population.



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