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Multiple Addictive Behavior Questionnaire (MABQ) Validation Project

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Addictive behavior is a major health problem in the United States (American Psychiatric Association, 2000). Individuals with addictions are at high risk for affective disorders, criminal behavior, ethical misconduct, absenteeism, problematic relationships, and a host of other concerns (Bacon & Russell, 2004). The question of multiple or cross addictions has been a focus in the field of addiction. While there are many tools available to measure one addictive behavior, there are limited assessment tools available to explore the complex construct of multiple addictions. The Multiple Addictive Behaviors Questionnaire (MABQ) was developed to measure both problematic and clinically diagnostic behaviors as well as investigate patterns of addictive behaviors and ascertain any gender differences. The current phase of the project involves testing the revised MABQ with a broader sample of college student-athletes to assist with continuing to understand addictive behaviors amongst this population.

Introduction

While addictions can manifest in different ways for individuals, in most instances individuals with addictions are powerless to control them (Bacon & Russell, 2004). Schaef (1987) described changes in behavior as a result of addiction to impel actions that are contrary to one's values and beliefs, and may progress to obsession and maladaptive action. Contemporary addiction research suggests that persons may have multiple or cross addictions that are mutually reinforcing, making prevention and treatment difficult (Ajar, 1999; DiClemente, 2003; Walters, 1999). Limited assessment tools are available to explore this complex construct addressing multiple addictions, especially among college student-athletes, many of which only address one issue (e.g., gambling, alcohol use). Some studies suggest that the student-athlete population may be at-risk for having multiple addictive behaviors (Martin, 1998; NCAA, 2004; Overdorf & Gill, 1994; Shaffer, 1997).

The Addictive Behaviors Questionnaire (ABQ; Bacon & Lee, 1997) was developed as an assessment instrument to measure multiple addictive behaviors in the college student-athlete population. Findings from that study provided the foundation for future development of the instrument, now called the Multiple Addictive Behaviors Questionnaire (MABQ). The MABQ assesses the more common problematic and diagnostic addictive behaviors with college athletes using five subscales: gambling, substance abuse, disordered eating, excessive exercise, and alcohol abuse.

The Twenty-First Century Student-Athlete

The student-athlete population is a unique sub-group in the college environment. Student-athletes negotiate a unique set of challenges compared to their non-athlete peers. Such challenges may include, but are not limited to: succeeding at both academics and athletics, performance, issues related to time management, stress related to the pressures of their sport, peer pressure with drug, alcohol, and steroid use, and having to cope with the traditional developmental tasks of their peer group (Bacon & Russell, 2004; Etzel, Ferrante, & Pinkney, 2002). Collegiate student-athletes are thought to be at a higher risk for academic and socially problematic behaviors than their non-athletic peer cohort. Perceptions and peer influence, in addition to accessibility, can have problematic effects for athletes when compared to their non-athlete counterparts, especially with regard to alcohol use (Martens, Watson, Royland, & Beck, 2005; Turrise, Mastroleo, Mallett, Larimer, & Kilmer, 2007). Studies have reported substance abuse problems beginning in high school for many athletes (Erickson, 2001; Johnston, O'Malley & Bachman, 1996).

An athletes level of involvement (e.g., recreational, competitive, and elite) is another factor for consideration. At the collegiate level, the division status of the institution is used to assist with defining the level of involvement (e.g., Divisions I, II, III). While recreational involvement may occur within all three divisions, the quality of competitive involvement is implied with division status, where by division I is implied to be most competitive and division III least competitive. Some factors that influence this are funding sources available (internal and external), which vary among the three divisions as well as the number of students, which impacts the number of competitive sports that may be organized. The complexity amongst these broadly defined levels of athletic involvement becomes increasingly compounded when viewed in terms of the stress of competition and lack of developmental maturity (i.e., plans for education and career and peer relationships; Brown, 1993; Bulling, 1992).

Development of the MABQ

The Multiple Addictive Behaviors Questionnaire (MABQ) was developed based on existing research about addictive behaviors amongst the student-athlete population to measure both problematic and clinically diagnostic behaviors as well as to obtain demographic information. Unlike previous research, this tool combined the most common addictive behaviors to explore multiple areas of addiction (Martens, Dams-O'Connor, Duffy-Paiement, & Gibson, 2006; Martens et al., 2005; Turrise et al., 2007).

The development of this instrument has included a series of pilot tests in addition to exploration of the existing research. The MABQ was developed to assess five areas of addiction (e.g., gambling, alcohol abuse, substance abuse, disordered eating, and excessive exercise). The instrument uses a series of forced-choice and Likert scale items and takes approximately 20 minutes to complete.

The first administration of the MABQ was conducted with ninety-nine male and eighty-six female Division III student-athletes between 18 and 23 years of age at a comprehensive college in the New England area. The sample identified as primarily Caucasian (92.4%), and represented 12 sports: 5 were spring sports and the other 7 were fall sports; 5 of the teams were male and 7 female. Data were collected during the 1997 spring and fall seasons. Results indicated problematic addictive behaviors with a smaller number actually meeting the criteria for clinical diagnosis. A factor analysis showed two separate clusters of addictive behaviors: substance abuse, gambling, and alcohol abuse were highly correlated for men (alpha's of .92, .92, and .72, respectively) and disordered eating and excessive exercise for women (alpha's of .82 for both). Five independent t-tests were performed to continue exploring gender differences among the addictive behavior patterns. Significant results were yielded by females ($p=.001$) illustrating a prevalence of disordered eating and males illustrating a prevalence of substance abuse ($p=.02$). Thus, initial results showed that athletes might exemplify multiple addictive behaviors. Treating one addiction independently of another may only serve to displace the underlying process of addiction to another behavior, thus additional research is necessary to explore this topic.

To continue with this newly developed instrument, the next phase of the project was to seek validation of the instrument. This process has two stages: first to achieve face and content validity on the items from experts in the field representing each subscale; secondly to achieve concurrent criterion-related validity for the five subscales of the MABQ. The efforts of the current phase of the project are related to the second stage and utilize another round of piloting to confirm results.

In the first stage, subject matter experts reviewed the content of the MABQ questions related to their area of expertise. Initial piloting demonstrated high criterion-related validity with the gambling; therefore, experts targeted were with specific regard to the remaining four subscales. Three subject matter experts were randomly identified for substance abuse, alcohol, exercise, and eating disorders, for a total of twelve experts. For each item, the content validity within the subscale was subjectively rated using a standardized form constructed by the researchers. High ratings by at least two experts indicated content validity for that addiction area of the MABQ. Items included within the alcohol and eating subscales met the requirement for high ratings without requiring additional modification of items. Revisions suggested for the exercise subscale meeting the high rating requirement were centered on one question recommending an expansion of the item to include more "withdrawal" type behaviors beyond what was implied in the question. Therefore, the question was changed from, "Do you feel guilty on the days when you are unable to workout?" to now read, "Do you feel guilty, anxious, irritable, or depressed on the days when you are unable to workout?" Subject matter reviewers only recommended modification of the question, thus the scaling using a 4-point Likert (where

1=*never*, 2=*sometimes*, 3=*often*, and 4=*never*) will remain. Revisions suggested for the substance abuse subscale that met the high rating requirement were focused on modifying one item to more directly quantify the question “during a month, how often do you use the following [substance].” Therefore, the question was changed to, “during a month, how many times do you use the following [substance].” This wording is generic enough to apply to the use of all substances targeted including: marijuana, tobacco, cocaine, steroids (for non-medical reasons), amphetamines (speed), acid, heroin, inhalants (e.g., “huffing”). The “other” category remained as well.

The current phase of this project will focus on re-piloting the MABQ to a target population of student-athletes at a comprehensive college in the New England area. The MABQ has been slightly modified to reflect suggested changes in accordance with the subject matter experts. Subjects will be drawn from both individual and team sports, include winter and spring teams and consist of male and female student-athletes.

Conclusion

The purpose of this project was to develop an instrument to assess addictive behaviors in student-athletes on two levels: problematic and diagnostic. Five addictive behaviors were identified (gambling, substance abuse, disordered eating, excessive exercise, and alcohol abuse), based on extensive literature reviews. Instrument validation for the MABQ has involved a multi-layered approach seeking the establishment of concurrent criterion-related validity, content validity as well as obtaining face validity following the initial round of pilot testing. The information obtained from the second phase of this project focused on validation, and was used to revise the items of the MABQ. The current phase of the project involves testing the revised MABQ with a broader sample of college athletes to assist with continuing to understand addictive behaviors amongst this population. The ultimate goal is to validate the MABQ for use as a tool with collegiate student-athletes. Results derived from the MABQ that assesses multiple addictive behaviors, may promote earlier diagnosis and allow for the implementation of effective interventions as well as preventions.

Addictive behavior is a major health problem in the United States (American Psychiatric Association, 2000). Individuals with addictions are at high risk for affective disorders, criminal behavior, ethical misconduct, absenteeism, problematic relationships, and a host of other concerns (Bacon & Russell, 2004). The question of multiple or cross addictions has been a focus in the field of addiction. While there are many tools available to measure one addictive behavior, there are limited assessment tools available to explore the complex construct of multiple addictions. The Multiple Addictive Behaviors Questionnaire (MABQ) was developed to measure both problematic and clinically diagnostic behaviors as well as investigate patterns of addictive behaviors and ascertain any gender differences. The current phase of the project involves testing the revised MABQ with a broader sample of college student-athletes to assist with continuing to understand addictive behaviors amongst this population.

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