

**A BRIEF INTERVENTION FOR HEAD COACHES:  
USING MOTIVATIONAL INTREVIEWING FOR  
ATHLETES WHO USE ALCOHOL**

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## ABSTRACT

There have been a host of studies performed documenting that college students engage in alcohol consumption to a degree that is dangerous to their health and well-being (Brenner, Metz, & Brenner, 2009; Harris et al., 2010; Leichleiter et al., 1998; Martens, O'Connor-Dams, & Paiement-Duffy, 2006). Many other studies indicate that college athletes indulge in a higher level of alcohol consumption than their non-athletic peers (NCAA, 2006; Williams, Jr. et al., 2008). There is a continuing culture of *excessive* consumption of alcohol by college athletes. When reading the headlines about a collegiate athlete who dies because of misusing alcohol, one might ask how the issue continues to be such a problem, and what can be done about it. As a result of data from a study (Nolt et al., 2013) highlighting head coaches' confidence and self-efficacy regarding the issue of alcohol consumption by athletes, an interventional study was developed to address what appears to be a lack of confidence and self-efficacy on the part of collegiate head coaches to address and intervene with athletes who misuse alcohol. Presented in this dissertation are data, which quantified a lack of confidence and self-efficacy of collegiate head coaches to address the issue of athletes who consume alcohol to the detriment of their health and well-being, as well as data from the resulting training which is the subject of this current study. Results affirm that an interventional training which includes alcohol use education combined with motivational interviewing technique successfully increases head coach confidence and ability to conduct a brief intervention with an athlete who drinks.

*Keywords:* alcohol, head coach, self-efficacy, duty of care, motivational interviewing, intervention.

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## TABLE OF CONTENTS

ABSTRACT .....	iii
ACKNOWLEDGEMENTS .....	iv
LIST OF TABLES .....	vii
LIST OF FIGURES .....	viii
CHAPTER	
1. INTRODUCTION .....	1
Statement of the Problem & Purpose Statement .....	6
Research Question: .....	6
Research hypotheses .....	7
Limitations .....	7
Delimitations .....	8
Definition of Terms .....	9
2. REVIEW OF THE LITERATURE .....	12
Initial Study .....	12
48-hour Rule .....	15
In-season vs. off-season .....	15
Motivational Interviewing .....	16
Alcohol Use and Athletic Performance .....	18
Self-Efficacy (SE) Theory .....	24
Duty of Care .....	25
3. METHODOLOGY .....	31
Research Design .....	31
Participants .....	31
Instrumentation .....	32
Initial Study .....	32
Interventional Study .....	33
Procedures .....	37
4. RESULTS .....	40
Research Question: .....	40
Research hypotheses .....	40
Statistical Analysis .....	41
Results Related to Hypotheses .....	42
Discussion Related to Each Hypothesis .....	46
H1 Discussion .....	46
H2 Discussion .....	47

H3 Discussion .....	48
General Discussion .....	49
Implications for Research .....	57
Implications for Practitioners.....	58
5. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS FOR FUTURE RESEARCH.....	60
Summary .....	60
Conclusions.....	62
Recommendations for Future Research .....	63
REFERENCES CITED.....	64
APPENDICES	
A. NOLT, SACHS, BRENNER, 2013 .....	68
B. SURVEY FOR INITIAL STUDY – NOLT, SACHS, & BRENNER, 2013.....	79
C. FELTZ SURVEY 1993 .....	89
D. FELTZ PERMISSION.....	90
E. NOLT PRETEST POSTTEST SURVEY .....	91
F. IRB APPROVAL.....	94
G. WORKBOOK FOR TRAINING .....	95
H. INFORMED CONSENT .....	105
I. SLIDE PRESENTATION .....	109
J. ADD A WORD ACTIVITY WORKSHEET .....	120
K. EIGHT TASKS IN LEARNING MI .....	121

## LIST OF TABLES

Table	Page
1. Survey Results: Head Coach Brief Intervention Training (HCBIT).....	45

## LIST OF FIGURES

Figure	Page
1. Results of Nolt (2013) survey which inform this intervention.....	60

## CHAPTER 1

### INTRODUCTION

There have been a host of studies performed documenting that college students engage in alcohol consumption to a degree that is dangerous to their health and well-being (Brenner, Metz, & Brenner, 2009, Harris et al., 2010 Leichleiter et al., 1998, Martens, Dams-O'Connor, & Duffy Paiement, 2006). Many other studies indicate that college athletes indulge in a higher level of alcohol consumption than their non-athletic peers (NCAA, 2006, Williams, Jr. et al., 2008). There is a culture of *excessive* consumption of alcohol by college athletes. When reading the headlines of a collegiate athlete dying as a result of misusing alcohol, one might ask how the issue continues to be such a problem, and what can be done about it.

Noticeably absent from this information were data which captured what collegiate head coaches know about alcohol consumption by their athletes, what coaches' attitudes are towards alcohol consumption, and how empowered coaches feel about being able, or willing, to address alcohol consumption. Researcher conducted a survey which quantified these data (Nolt, Sachs, & Brenner, 2013) (Appendix A). To explore this further, a literature review of the characteristics of an effective coach informed the larger discussion of head coaches' ability to intervene with athletes who drink. Such characteristics include, among other things, being adept at teaching values, character, morals, and life skills in addition to the skills to perform in their chosen sport (Walinga, 2012). In a qualitative analysis of leadership characteristics of Korean coaches by Park and Lyle (2013), emergent characteristics of successful coaches included eight dimensions, *attitude and philosophy* among them. In this context, attitude and

philosophy entailed a concern for athletes, role modeling, credibility, and responsibility, in addition to a love of sport. To some degree, concern for athletes also included management of athletes' private lives. Park and Lyle (2013) also note that pedagogy necessitates "a leadership role in managing the necessary intervention to bring about improvements in performance" (p. 84). A focus on the process of coaching, as in sound practice, rather than the outcomes, embraces a higher meaning to athletes.

In a study of athletes' perceptions of coaching effectiveness conducted by Boardley, Kavussanu, and Ring (2008), effective coaches were described as those who, through their own behaviors, produced positive outcomes in their athletes. This study operationalized the coaching self-efficacy model as presented in a study by Corcoran and Feltz (1993), which was based upon the Self-Efficacy theory of health behavior as developed by Bandura (1977).

Self-efficacy as described by Bandura (1977) is the *belief* in one's ability to perform a skill or desired action. The results of the study by Boardley et al. (2008) indicated that there is a direct relationship between athletes' positive perceptions of their coaches' effectiveness in such areas as motivation and sportsmanlike behavior. Boardley et al. (2008) suggest that coaches' behaviors exert some influence on the athletes through the athletes' perceptions. This study also suggests that "athletes who perceived their coach as effective in technique were more likely to report being more confident in executing key [rugby] skills" (p. 283). This could be helpful in informing the discussion on athletes' perceptions of their head coaches' attitudes toward athlete alcohol consumption. However, this may not be true when it relates to alcohol consumption, as reported in a study conducted by Williams, Perko, Usdan, Leeper, Belcher, and Leaver-

Dunn (2008), which indicated that alcohol rules by coaches had no impact on athletes' alcohol behaviors.

Williams et al. (2008) applied the Social Ecological model of health behavior, which suggests that there are multiple levels of environmental influence, including self, on an individual's health behaviors, including that of not only self, but also friends and family, community, workplace, and policy. All of these are potential sources of influence which can lead an individual to engage in pro-social or anti-social behaviors. Results from the Williams et al. (2008) study showed that influence on athlete alcohol consumption came more from the athletes themselves (intrapersonal level of influence), and their teammates' attitudes towards drinking (interpersonal level of influence), than it did from their coaches' influence. The challenge here is that if coaches are actually saying little, or nothing at all, to their athletes regarding alcohol use behaviors, then it may be difficult to actually quantify coach influence.

Regardless of the contradiction present in the literature of whether or not head coaches influence their athletes' personal behavior, the fact remains that the very essence of being a coach, especially a collegiate head coach, comes with a *duty of care* to the well-being of those for whom they are responsible. Assume for the purpose of this paper that all collegiate head coaches have a care and concern for their athletes, whether star player or benchwarmer. There is also a legal obligation called a *duty of care* that coaches have to their athletes. *Duty of care* is defined as all the reasonable steps a coach must take to prevent injury to athletes, "including ensuring participants are prepared for all aspects of the activity by means of progressive instruction" (Grossman, 2009, p. 13). Many of the head coaches who participated in the initial survey (Nolt et al., 2013), which informs

this interventional study, indicated that they enforced an implied policy called the 48-hour rule of drinking. Drew Pothoff (1996), a football coach at Syracuse High School in Illinois, posed several questions that may be applicable here: Do these rules really work, or are they “window dressing” for administration and/or parents? Do athletes consider these rules a joke, and believe that no one is really interested in them? Do coaches look the other way when their athletes are at risk (Pothoff, 1996)?

This 48-hour rule is not sanctioned by most institutions nationwide, nor the NCAA, and implicitly states that an athlete should not have consumed any alcohol within 48 hours leading up to a practice or game. While the intent of this study is not to address nor to discuss this rule per se, it is intended to indicate that by permitting athletes, whether explicitly or implicitly, to engage in activity with alcohol still present in the blood, is demonstrating a violation of the duty of care mentioned above and places a coach at legal risk. More importantly, an athlete who drinks prior to the 48 hours leading up to a practice or game exposes him/herself to serious injury, which could be deleterious to long-term well-being. Many believe beginning sports at a young age not only is fun, and a more positive use of time for young people, including children, but that it is also associated with psychological well-being, social development, and higher academic scores. Part of this positive development rests in the duty of care that coaches owe to their athletes. This duty of care should be what is expected from a “reasonable, confident and careful coach acting in similar circumstances” (Grossman, 2009, p. 13).

Given the most recent, high profile, adverse events involving collegiate head coaches, there are increased concerns about the risks that pose a threat to the safety and well-being of college athletes who agree to participate in episodic, excessive drinking,

and then attempt to participate in a sporting event. Clearly, the existing institutional, and perhaps in some cases departmental, policies have failed to deal adequately with the problems associated with athlete alcohol consumption and additional measures are required to ensure safety and protection of college athletes. This responsibility may, in whole or at least in part, rest with the head coach whom the athletes may perceive as fostering an environment, which encourages, implicitly, alcohol consumption. It is worth noting that, while this research does not investigate, specifically, institutional alcohol policies, it is unclear that the policies themselves fail to address this issue, as much as the lack of awareness and enforcement of these policies by coaches and/or team staff do (Nolt et al., 2013).

In an evaluation of chemical health education for high school athletic coaches conducted by Corcoran and Feltz (1993), it was shown that high school coaches needed to be educated regarding “critical chemical information and methods for developing intervention skills so that they may adequately, and intelligently, and successfully discourage their [young] athletes from engaging in unhealthy behavior” (p. 299). The research question for the Nolt et al. (2013) study was very similar in nature to that of Corcoran and Feltz (1993). To what extent do collegiate head coaches’ knowledge of alcohol signs and symptoms and their skills to intervene prevent them from actually doing so? One of the reasons behind the current culture of alcohol consumption may be in part because collegiate head coaches do not feel confident in their ability to intervene with an athlete who drinks. Therefore, the initial study sought to establish a relationship between collegiate head coaches’ current knowledge, and attitudes, toward athlete alcohol consumption, and the current behavioral culture of drinking within collegiate

athletics, and it did so. While the first part of this research question was answered by the initial survey responses, the second part of this question, that of the culture of drinking, may not be realized until after an intervention has been tested and its outcomes evaluated in future studies. The results of this follow up study, which is the subject of this dissertation, demonstrates that with newly acquired skills and knowledge, head coaches can provide a brief intervention with increased confidence in their skills using motivational interviewing technique.

#### Statement of the Problem & Purpose Statement

Collegiate head coaches lack confidence in their knowledge of alcohol use among athletes. Further, their attitude, as indicated in a survey conducted in 2012 by this author, is that referral to other resources will address this issue instead of their own direct intervention, and that there is an absence of confidence in head coaches' ability to intervene even if they possessed the knowledge. To that end, an interventional study was conducted whose purpose is to increase head coaches knowledge of the signs and symptoms of alcohol use by athletes (i.e., slower reaction time, fatigue, loss of coordination), and to train coaches on the use of motivational interviewing technique as a means to conducting a brief intervention with athletes who consume alcohol.

#### Research Question:

Will a training which instructs on the skills of motivational interviewing (MI) technique be effective in increasing confidence and awareness of collegiate head coaches with regard to signs and symptoms of alcohol use and how to conduct a brief intervention with a student-athlete who drinks?

## Research hypotheses

The hypothesis was that upon completion of participation in this training, head coaches would gain the skills needed to increase their confidence in their ability to intervene with an athlete who drinks. In the absence of some type of intervention, the current culture of excessive drinking by student-athletes is likely to continue. The goal of this interventional training was to:

1. Increase confidence in participants' knowledge of the signs and symptoms of alcohol use by an athlete through the use of progressive instruction using a slide presentation and current research specific to this subject.

2. Identify and recognize the link between alcohol use and athletic performance using pretest and posttest results along with current research to establish this direct relationship through progressive instruction using a slide presentation.

3. Increase confidence in participants' ability to conduct a brief intervention, using motivational interviewing (MI) technique as measured through the results of the pretest and posttest.

## Limitations

The following limitations were present in this study:

1. The sample size was limited as the number of head coaches available to attend for the proposed length of time (two hours) is similarly limited. Head coaches may only sporadically be available at any given time due to the time constraints of being in season, such as team travel, costs to travel to training, and scheduling conflicts at the time of this study. Additionally, institutional cooperation may be lacking in terms of participation either at the administrative level and/or departmental level.

2. The original survey (Nolt et al., 2013), which informs this interventional study, was given to a homogenous group of participants as indicated by the responses to the question of ethnicity. One hundred percent of the participants identified their ethnicity as Caucasian, thereby limiting the generalizability of results to a larger population. This interventional study has been piloted twice and, to date and through observation only, the majority of participants are from this same ethnic group. The majority of participants that attended this training were from the same ethnic group.

3. Participants may have certain personal beliefs or behaviors with respect to alcohol, and do not believe in the value of the training.

4. If the participants have been previously exposed to motivational interviewing technique training, whether in the context of alcohol use or not, participants may feel they do not need the training.

#### Delimitations

The following delimitations were present in this study:

1. The interventional study is delimited to those participants who were or are available due only to logistical, demographic, and geographical availability. The reason for this is that the training did not take place at a national conference where head coaches were present from various geographical regions, nor would anyone likely travel a great distance to participate in this training.

2. The use of self-reporting surveys, such as the ones used for the pretest/posttest design, is common in studies such as these (Corcoran & Feltz, 1993); however, this can be limiting in that even with all possible measures taken to ensure confidentiality, some responses may not be completely honest, or may be skewed by bias.

3. Experimental mortality may occur since it is entirely possible that participants will leave the training at some point, and may not return. Additionally, many participants may only complete the pretest and not stay for the posttest, which presents some issues with the amount of data collected despite good attendance. Reasons for leaving can be: participants are not interested in the topic, are intimidated by the topic, have already been exposed to the topic and thereby believe they do not need the training. To reduce the incidence of experimental mortality the time frame of the training is maximized to two hours, a workbook was utilized to engage participants, and through the use of fun and interactive activities to encourage continued participation.

#### Definition of Terms

**Alcohol Use:** is defined as the consumption of alcohol by student-athletes to the detriment of his or her health, wellness and well-being, and which will have a deleterious effect on sport performance.

**Brief Intervention (BI):** A brief intervention refers to a low cost, and short duration (10 – 15 minutes) approach to addressing alcohol related problems experienced by collegiate student-athletes. BI bridges the gap between primary prevention efforts, and more intensive treatment (Babor & Higgins-Biddle, 2001).

**Collegiate Head Coach:** is defined as any adult person (over the age of 18) who holds the official position and title of Head Coach of any sport within the athletic department at any NCAA Division I, II, or III institution.

**Confidence as it relates to Self-Efficacy Theory (SE):** SE is defined as the belief by people that they have the ability to perform a task or master a skill (Bandura, 1977). In this study, this would be MI technique, and identifying signs and symptoms of alcohol

use by student-athletes (SA). To operationalize confidence, this interventional study trains participants in the use of MI, and identifying the signs and symptoms of an athlete who may appear to be sober, but whose athletic performance is in fact compromised by alcohol. Many participants may have the inherent ability to use MI in many settings, but simply are not aware of it, and therefore may believe with confidence in their ability to master the MI skills. The goal for this training would be to cultivate that part of the participant, encourage practice of this skill through role-play and interactive activities, and evaluate self-efficacy over time and use.

**Duty of Care:** is described as a legal obligation on the part of a coach to ensure that athletes are completely ready to participate in a practice, workout, or game through progressive instruction. Duty of Care is further defined as all the reasonable steps a coach must take to prevent injury to athletes, “including ensuring participants are prepared for all aspects of the activity by means of progressive instruction” (Grossman, 2009, p. 13).

**Motivational Interviewing (MI):** is defined as a guiding communication style of interviewing someone to elicit behavior change talk, resolve ambivalence to change, and strengthen a person’s intrinsic motivation to change (Rollnick, Miller, & Butler, 2008).

To operationalize MI, this interventional study will train head coaches in the actual principles and application of MI as a modality for a brief intervention with an athlete who drinks. This variable is to be measured using pretest/posttest surveys during the training.

**Student-Athlete (SA):** is defined as a student at any NCAA Division I, II, or III institution who participates in any sport within the athletic department of the institution they attend.

**Substance Abuse Education (SAE):** this component will instruct on how to identify the signs and symptoms of alcohol use by an athlete, and the importance of prohibiting use during sport participation in the interest of student-athlete well-being. In addition to this, the relevance of becoming familiar with one's institutional policies with respect to alcohol consumption by students, including athletes, and how the lack of communication on the part of a head coach contributes to the current culture of alcohol consumption by student-athletes, is included. Covered topics will also include, but not be limited to, reported reasons by athletes for drinking to excess, discussion on athlete unintentional injury as it relates to alcohol consumption, and athletic performance related changes due to alcohol (i.e., lack of stability, reduced recovery time, lack of motivation, increased fatigue)

## CHAPTER 2

### REVIEW OF THE LITERATURE

#### Initial Study

The purpose of this interventional study was to increase head coaches knowledge of the signs and symptoms of alcohol use by student-athletes (SA) (i.e., slower reaction time, fatigue, loss of coordination), and to train coaches on the use of motivational interviewing technique as a means to conducting a brief intervention with SAs who consume alcohol. The study which informs this interventional study used a newly developed instrument (Nolt et al., 2013) (Appendix B) to ascertain collegiate head coaches' knowledge and attitudes toward their student-athletes' alcohol consumption. That study sought to explore the confidence, and self-efficacy, of collegiate head coaches with respect to their ability to intervene with student-athletes who consume alcohol and thereby place themselves at a greater risk of alcohol related injury. Respondents to that survey did indicate that they do *not* feel confident in their ability to intervene, which is indicative of either a lack of skill to do so, or the confidence to intervene, or both.

Respondents also indicated that they do not believe that athletes would seek them out, as their head coach, if they needed to discuss their alcohol problems. If in fact this is true, then, as indicated in the Boardley et al. study (2008) when it comes to alcohol, athletes may not perceive their head coaches as effective in technique, or skill, to intervene, and therefore are not confident that their coaches would be helpful. It is also possible that athletes may perceive their coaches as considering this topic a put-on, or that their coach is not interested in enforcing rules regarding their drinking as long as they can perform effectively within their sport, as suggested by Potthoff (1996).

Research of the literature revealed a very similar study (Corcoran & Feltz, 1993) to the current study (Nolt et al., 2013). This study evaluated chemical health education for coaches, and while the target population for this study was high school coaches, the results are generalizable to other coaching populations. Using a program specifically developed for use among high school coaches, Corcoran and Feltz (1993) developed the Chemical Health Education and Coaching program or CHEC. The purpose of this program is “to help instill confidence in coaches, the program teaches coaches how to communicate effectively, how to eliminate negative enabling behavior, and how to successfully confront questionable, unacceptable or dangerous behavior exhibited by athletes” (p. 299). The purpose of the Corcoran and Feltz (1993) study was to evaluate the CHEC program. The authors of that study stated that they wanted to establish if CHEC increased knowledge and confidence of high school coaches’ ability to address chemical health practices among their athletes.

Much like this current study (Nolt et al., 2013), no instrument existed for Corcoran and Feltz (1993) to measure coach knowledge and confidence of chemical health information and intervention skills. Therefore, the study authors created the Chemical Health Questionnaire (see Appendix C), which was a 46 -item questionnaire to measure coaches’ knowledge of critical chemical information and of chemical health intervention skills. CHEC was then implemented for experimental groups consisting of three 1-hour sessions over the course of two weeks, and was included as part of the PACE (Program for Athletic Coaches Education) program which is an evening education program designed by the Michigan High School Athletic Association. Nolt (2013) adapted, with permission (Appendix D), the questionnaire from CHEC to apply to

collegiate head coach knowledge of the signs and symptoms of alcohol use among athletes, as well as the use of motivational interviewing skills as a means to provide a brief intervention with athletes who drink.

Results from the Corcoran and Feltz (1993) study revealed that participants who were exposed to the CHEC program significantly improved in their knowledge of chemical health and increased their levels of confidence in chemical health knowledge compared to the control group who were not exposed to CHEC. Authors speculate that one reason for these results could be that the program was developed specifically to meet the needs of the targeted population of high school coaches. The Nolt (2013) study was similarly implemented, but was specifically for collegiate head coaches, which may explain, much like in Corcoran and Feltz (1993), the results of improved knowledge of student-athlete use of alcohol, and increased confidence in the use of MI skills as a means to conducting a brief intervention. In the Nolt (2013) training, the information disseminated to participants was specific to head coaches' and their confidence levels of their knowledge of alcohol use by student-athletes. While a control group was not included in the Nolt (2013) study, it can easily be inferred that had one been included, without the study training, a control group would not improve in their confidence levels as to knowledge of alcohol use by student-athletes, nor on skills related to MI, unless participants had previously been exposed to MI and/or had already mastered the MI skills. With respect to participants knowledge of the signs and symptoms of alcohol impaired sport performance, knowledge would improve somewhat in a control group if information was provided on this topic in print media (as opposed to an interactive

training); however, levels of confidence most likely would not improve as there would be no interventional training to ensure an increase in confidence.

#### 48-hour Rule

According to Nolt et al. (2013), some head coaches indicated that they enforce an implied, as in not sanctioned, unwritten rule called the 48-hour rule. This means if athletes are going to drink, they should refrain from doing so within the 48 hours immediately prior to a practice, workout, or game, lest it affect their performance, and thereby their outcomes. The suggestion is that should performance be lacking, enforcement begins. Enforcement, according to respondents, may be sanctions such as sitting out games, no dressing, warnings, and possibly suspensions. Overall, response to a question regarding enforcement of rules was skipped by half of the respondents, and among the respondents who did elaborate, they did so without any commitment to a specific enforcement modality. The answers were general in nature, and mostly indicated that it depended on the impact of the violation, whether it took place in or out of season, and sometimes the coach relied upon trust. In many cases, these responses did suggest that there were policies set by Athletic Directors, but did not seem to provide specifics as to enforcement. A search of the literature yielded no studies regarding the 48-hour rule.

#### In-season vs. off-season

With respect to enforcement of rules during the in-season versus the off-season, respondents were nearly equal in their enforcement of rules for alcohol consumption where the majority still enforced more strictly during the season. According to Martens, et al. (2006), athletes did positively alter their drinking behaviors during the competitive season; however, their drinking behaviors during the off- season were such that the

consequences could still result in injury, whether physical or not, that could negatively affect athletic performance. These might include “serious academic, social, and health related problems as a result of such drinking” (p. 508). Martens et al. (2006) further suggest that “off-season increases in alcohol use would almost certainly negatively impact an athlete’s training and subsequent athletic performance” (p. 508). Regardless of the true nature of this piece of the athlete alcohol puzzle, head coaches, as do all coaches, carry a duty of care toward their student-athletes. By failing to establish concrete, and often vocalized, boundaries around alcohol consumption, coaches leave themselves, and their institutions, open to legal action, and their athletes open to potentially serious injury.

### Motivational Interviewing

The effective use of motivational interviewing (MI) technique is key to the success of a brief intervention by head coaches. Stephen Rollnick and William Miller have used MI successfully since its inception in 1983. The focus of MI was on patient problems with alcohol whose lives lay in ruin due to their drinking, and their ambivalence to changing their behavior. “We quickly learned that lecturing, arguing, and warning did not work well with ambivalent people, and over time developed the more gentle approach that would come to be called motivational interviewing” (Rollnick, Miller, & Butler, 2008, p. viii). The focus, according to Rollnick et al. (2008) was to “evoke conversation about changing one’s behavior, resolving his or her own ambivalence to changing, and to do so using his or her own motivation and energy to do it” (p. viii).

With MI’s intent focused on reducing ambivalence to change, over the years it became apparent that this technique could apply to almost any circumstance where

ambivalence reduces the likelihood of positive behavior change. The successful use of MI is predicated on an understanding of its five basic principles: express empathy, develop discrepancy, avoid arguments, roll with resistance, and support self-efficacy. This interventional study provided training on each of these principles, and developed the participant's skills through practice and active learning activities throughout. The goal of the training was to increase head coaches' confidence in their ability to utilize these newly acquired skills to effectively engage in a brief intervention with an athlete who drinks. A brief intervention would be approximately 15 minutes in length and, depending on the circumstances of any given athlete, would be repeated as necessary to successfully elicit a reduction in an athlete's risky drinking behaviors.

To further elucidate on the appropriateness of the use of MI in a brief intervention by head coaches, a randomized controlled trial of a brief intervention study was conducted by Humeniuk, Ali, Babor, Souza-Formigoni, Boerngen de Lacerda, Ling, McRee, Newcombe, Pal, Poznyak, Simen, and Vendetti (2011) which suggested that "brief interventions have been shown to be cost-effective in reducing alcohol consumption, and the associated problems" (p. 958). In this study, as would be the case with athletes experiencing a brief intervention by a head coach, participants were considered to not be dependent on their substance of choice, but were considered to be at elevated risk for experiencing a problem or injury related to their substance use. This, then, made them good candidates for the randomized controlled study, and a brief intervention. It is suggested for this interventional study (Nolt, 2013) that in the absence of any intervention, brief or otherwise, athletes who would be classified as moderately at risk for injury (harmful use, but not dependent) would otherwise go undetected or get

worse in their drinking behaviors. The brief intervention used in the Humeniuk et al. study (2011) incorporated MI, which they found to reduce client resistance while “facilitating behavior change” (p. 959).

The results of the Humeniuk et al. (2011) study showed that a brief intervention which is based on MI reduced illicit substance use, and the associated risk, significantly. There was an overall reduction in substance use and risk over time. These findings further support the use of MI in the form of a brief intervention by head coaches with athletes who are at risk for alcohol related injury, and reduced sport performance. Whether the individual participants of this training will utilize these MI skills to conduct BIs with their athletes is unclear. What is clear is that this training significantly increased the head coach participant’s ability to conduct a BI, and increased their awareness of the importance of becoming more proactive in addressing this issue.

#### Alcohol Use and Athletic Performance

According to the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) (2013), there are five alcohol-related disorders. They are Alcohol Use Disorder, Alcohol Intoxication, Alcohol Withdrawal, Other Alcohol-Induced Disorders, and Unspecified Alcohol-Related Disorders (p. 490). The focus here will be only on the first, since it seems to be the most relevant when discussing alcohol related problems with student-athletes. The diagnostic criteria for Alcohol Use Disorder include only *two* of the following over a 12- month period:

1. Alcohol is taken in larger amounts over a longer period than was intended
2. There is a persistent desire or unsuccessful efforts to cut down or control alcohol use
3. A great deal of time is spent in activities necessary to obtain alcohol, use alcohol, or recover from its effects.
4. Craving, or a strong desire or urge to use alcohol

5. Recurrent alcohol use resulting in failure to fulfill major role obligations at work, school or home
6. Continued alcohol use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of alcohol
7. Important social, occupational, or recreational activities are given up or reduced because of alcohol use
8. Recurrent alcohol use in situations in which it is physically hazardous
9. Alcohol use is continued despite of having persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by alcohol
10. Tolerance (a need for increasing amounts of alcohol to achieve intoxication)
11. Withdrawal (alcohol is taken to relieve or avoid symptoms of withdrawal such as craving, insomnia, nausea or vomiting, anxiety, hyperactivity (i.e. sweating or pulse racing) (pp. 490-491)

As indicated previously, only *two* of the above criteria are required to be diagnosed with this disorder. There are clusters of behavior symptoms that contribute to this diagnosis, and it would not be improbable that these would apply to an athlete who repeatedly suffers the consequences of alcohol related risky behaviors. Some associated features for supporting this diagnosis would also include conduct problems, such as fights, sexually aggressive behavior, and insomnia, gastrointestinal effects such as gastritis and stomach ulcers. Low-grade hypertension (high blood pressure) is also associated with this disorder as is increased levels of triglycerides and “bad” cholesterol (LDL) (DSM-5, 2013, p. 492).

Alcohol use disorder is common in the U.S. with a 12-month prevalence estimated to be 8.5% of adults aged 18 years and older. The age of onset for this disorder with two or more of the aforementioned criteria peaks in the late teens or early 20s, which is the same age as many of the student-athletes that present with alcohol related injury. DSM-5 (2013) further suggests that periods of remission and relapse are characteristic in this diagnosis. Such periods could be described in the life an athlete at risk as drinking during the season and/or off-season. Athletes who consume alcohol to

excess only in the off -season may do so as a means to “make up for lost time” when not drinking during the season. One last look at characteristics to mention which are relevant to use among athletes is that risk factors for this disorder include cultural attitudes towards drinking, such as the attitudes of teammates or those of the head coach and coaching staff, personal experiences, stress levels, and suboptimal ways of coping with stress. It is these last characteristics that may play an important role in the excessive drinking patterns seen among athletes, and which head coaches have previously, and erroneously, ignored. Future studies of the effectiveness of this training may also want to investigate the change in drinking culture, and establish a relationship between trainings such as this, and the change in the culture of drinking in collegiate athletics.

In a study conducted by Brenner, Metz, and Entriken (2013) researchers surveyed 1,444 student-athletes at eight colleges and universities around the eastern U.S. regarding athlete experience with alcohol related unintentional injury (ARUI). Results indicated that 40% of respondents were in the moderately risky category for a diagnosis of alcohol use disorder, and 13% were in the high-risk category. According to Brenner et al. (2013), student-athletes reporting in the moderately risky category were three times more likely to suffer an ARUI. A student-athlete reporting in the high-risk category was six times more likely. Additionally, over 30% of respondents indicated that their ARUI occurred during the sport season, and 13.5% indicated their ARUI occurred in the off-season. What is even more surprising is the assertion by 36% of respondents that they have reported to a sport practice or contest with a hangover. Linking Brenner et al. (2013) responses with the responses by head coaches in the Nolt (2013) survey establishes what could be a direct relationship between the lack of communication from head coaches

regarding alcohol consumption on the team, and excessive alcohol consumption by student-athletes and the ensuing ARUIs.

This study concluded that additional investigation for the use of brief interventions with student-athletes who drink and suffer ARUI is warranted. Further, Brenner et al. (2013) indicate that Athletic Trainers are “well-positioned” health care providers for student-athletes, and as such would be the likely provider to see the reported ARUI. Forty percent of respondents to this study indicated they saw an athletic trainer to address their ARUI. Athletic Trainers then have a unique opportunity to engage student-athletes in a brief intervention, and therefore should also receive training. Head coaches should work in tandem with Athletic Trainers to engage a student-athlete who drinks, and engages in risky behaviors, to elicit motivation to change to more responsible, and healthier behaviors.

The detrimental effects of alcohol consumption on human physiology, generally, and more specifically on athletic performance, have been previously documented (O’Brien & Lyons, 2000; Underwood, 2010; Vella & Cameron-Smith, 2010). While further study at the physiological level is recommended to support earlier findings, the overall results appear to be the same. Some of the reported negative effects of alcohol on sport performance include (but are not limited to) greatly increasing the release of Cortisol (the stress hormone). “Cortisol negates training effect” (Underwood, 2010, p. 35). Underwood (2010) further suggests that alcohol reduces sport performance by as much as 30% in junior athletes. Heavy episodic drinking which are five or more drinks within one episode results in potential losses of up to 14 days of training effect (Underwood, 2010).

Vella and Cameron-Smith (2010) suggest that alcohol has many effects on human physiology, thereby on sport performance. Among them is a reduction in skeletal muscle output (thus reducing strength). Alcohol can produce an increase in muscle cramping and pain, possibly due to the dehydration that can be associated with alcohol consumption. Alcohol, then, acts as a diuretic (an increase in urine production). Dehydration increases with alcohol intake because it is a peripheral vasodilator. In this way, fluid loss can occur through “evaporation which further exacerbates the dehydration that is potentially already present” (Vella & Cameron-Smith, 2010, p. 782). A reduction in core body temperature is another potential risk of alcohol consumption, causing a decrease in sport performance through decreased work tolerance in both high and low climate temperatures (Vella & Cameron-Smith, 2010). Additionally, there are potential risks, and changes to: metabolic functions such as efficient metabolizing of glucose (a source of energy), increase in post-exercise fatty acid production (creating an acidic environment in the body) both of which will have ramifications for sport performance as well as recovery (Vella & Cameron-Smith, 2010). It is in this specific subject area that head coach participants increased their knowledge of how impaired sport performance will manifest when alcohol remains in the bloodstream.

According to O’Brien and Lyons (2000) there is a significant difference between injury rates for athletes who drink and athletes who do not. Athletes who consumed alcohol at least once per week had double the incidence of injury than athletes who did not drink. Specifically, drinking athletes incurred an injury rate of 54.8% whereas the nondrinking athlete group injury rate was reported to be 23.5% ( $p < .005$ ) (p. 298). Further, while athletes did not come to a workout, training, or event having had a drink

that day, athletes did indicate consuming alcohol the day before participating in a sporting event. “Alcohol is described as a *performance impairing* drug, and small doses can temporarily weaken left ventricle contraction” (O’Brien & Lyons, 2000, p. 297). Alcohol has also been found to cause exercise-induced asthma during sport performance, and in some cases anaphylaxis (acute reaction to an allergen, or in this case, exercise). Alcohol ingested the day prior to engaging in sport reduced aerobic performance which can be illustrated through lower long distance running times, earlier fatigue, as well as difficulty breathing during exertion. Lastly, “Alcohol hangover is caused by alcohol toxicity, dehydration and the toxic effects of the congeners (by-products of fermentation) in alcoholic drinks. It is commonly characterized by a depressed mood, headache and hypersensitivity to outside stimuli. As a result, the athlete may not feel they are able to perform maximally” (p. 299). Given the increased incidence of injury to athletes due to the consumption of alcohol, head coaches, and coaching and training staff should be vigilant regarding alcohol consumption among team members. It is incumbent upon athletic staff, including head coaches, to be knowledgeable about the effects of alcohol on not only sport performance, but long-term well-being as well.

El-Sayed, Ali, and Ali (2005) suggest, “it is well documented that alcohol modulates the immune system and impairs host defense. Compelling evidence is also mounting to suggest that chronic alcohol use is linked with adverse effects on the body systems and organs including the brain, the cardiovascular system and the liver (p. 264)” Additionally, El-Sayed et al. (2005) indicate that chronic alcohol consumption may be responsible for alcoholic myopathy (an abnormality or disease of muscle tissue) which renders many processes such as muscle fiber synthesis compromised after training.

Additionally, with a compromised immune system, drinking athletes are more susceptible to infection, leading to increased severity and frequency of infection. Finally, as is documented elsewhere, El-Sayed et al. (2005) suggest that fitness trainers, exercise specialists, and coaches have an obligation to follow the guidelines set forth by the American College of Sports Medicine which clearly suggest that alcohol has deleterious, and in some cases, grave, consequences related to sport performance.

### Self-Efficacy (SE) Theory

SE Theory suggests that individuals would generally attempt tasks that they are certain they would not fail at performing, and is influenced by performance accomplishments, vicarious experience, verbal persuasion, and emotional arousal (Bandura, 1977). People with a strong sense of efficacy *believe* they can perform even difficult tasks. Therefore, this interventional training's intention was to empower participants to master the MI skills presented through practice, and thereby increase their confidence and belief (self-efficacy) in their ability to use these skills to intervene with an athlete who drinks. Mastery experience is a theoretical construct of this health behavior theory. This refers to when people believe they can do something new if it is similar to something they have already done well (Hayden, 2009).

According to Feltz, Chase, Moritz, and Sullivan (1999), "coaching efficacy was defined as the extent to which coaches believe they can affect the learning and performance of their athletes" (p. 399). Much like academic teachers, coaches provide instruction, guide their athletes in performance, and provide feedback. Teaching efficacy, according to Feltz et al. (1999), "is perceived to be a powerful variable in teaching effectiveness" (p. 765), so too is the efficacy of coaches with respect to coach

effectiveness. Feltz et al. (1999) suggests that coaching efficacy influences coaching behavior, player satisfaction of the coach, player and team performance, and player and team efficacy. As reported in Vargas-Tonsing, Warners, and Feltz (2003) there is also reason to believe that teachers with high efficacy will have students with higher rates of achievement. The same could be inferred with respect to coaches and their athletes. With regard to the current study's (Nolt, 2013) participants it is entirely possible that coaches, who entered the training with high efficacy in coaching effectiveness, may then feel more confident in their ability to master the specific skills of MI, or in their ability to intervene with an athlete who drinks.

The five principles of MI, as itemized previously, include such skills as empathy and reflective listening. These skills may or may not be inherent skills of head coaches who are accustomed to directing, warning, and sanctioning as part of their job skills. This research explored the possibility that training participants have used these MI skills in other contexts such as with family and/or friends, have high efficacy with respect to these skills, and therefore may in fact be able to refer to their use of these as the context by which they will use them to implement an MI based brief intervention with an athlete who drinks. A review of the literature revealed no other studies of coaching efficacy among collegiate head coaches.

#### Duty of Care

There is very little research available with respect to the duty of care a coach owes to an athlete. Duty of care is described as a legal obligation on the part of a coach to ensure that athletes are completely ready to participate in a practice, workout, or game through progressive instruction. If part of the program fails to instruct on alcohol

consumption and the related consequences, whether in season or not, could the coach, then, be partly liable for injuries sustained by an athlete? Palamer (2011) suggests that what makes a claim of negligence successful is there must be: “a duty of care owed, a breach of the duty of care, and foreseeability and causation of injury” (p. 8).

Underpinning this legal risk, however, are the leadership characteristics that are indicative of a good and effective coach, such as those described by Park and Lyle (2013), which include serving as positive role models, demonstrating credibility, responsibility, and a true sense of caring for their athletes’ well-being as much as for their sport, and related outcomes. Head coaches who participated in the study, which informs this interventional study (Nolt et al., 2013) indicated that they are lacking in the skills, and confidence, to address alcohol consumption by their student-athletes. They also indicated that they are unaware of, and therefore cannot enforce, their institution’s alcohol policies, and can only refer athletes out of their control to others for help. This, then, establishes a need to provide an intervention for head coaches that would increase skill and confidence to intervene with athletes who drink, and thereby increase the likelihood head coaches can demonstrate their care and concern for their athletes with regard to alcohol consumption.

The intent of this training was to empower collegiate head coaches to: identify signs and symptoms of alcohol consumption by athletes; use motivational interviewing technique to conduct a brief intervention with an athlete; and heighten awareness of institutional policies on alcohol consumption to affect a change in the culture of enforcement of these established policies (Nolt et al., 2013).

As stated above, duty of care is described as a legal obligation on the part of a coach to ensure that athletes are completely ready to participate in a practice, workout, or game through progressive instruction. If part of the athletic program fails to properly instruct on alcohol consumption and the related consequences, whether in season or not, could the coach then be partly liable for injuries sustained by an athlete? According to Grossman (2009), a similar question was answered in the courtrooms in the United Kingdom on three separate occasions involving teachers, and coaches. In two of those cases, the courts ruled against the coach(es) saying there was contributory negligence. The third case involved a skydiving instructor who was found to be negligent due to misjudging a novice skydiver's readiness to jump. Palamer (2011) suggests that what makes a claim of negligence successful is there must be: "a duty of care owed, a breach of the duty of care, and foreseeability and causation of injury" (p. 8).

According to the Coaches' Association of British Columbia (2011), and reported on the website for Sport Law & Strategy Group (<http://www.sportlaw.ca/2010/01/coaches-duty-of-care-revisited>, 2011) the following will inform this discussion as to the relationship between collegiate head coaches and their duty of care with respect to student-athletes who drink.

1. Does the coach owe the athlete a duty of care? When you are in a position of trust, care or power, a duty of care will almost always be placed upon you. Therefore, a coach will have a duty of care to their athletes.
2. Has the coach breached the duty of care? The answer to this is not clear-cut and as new cases occur, the standard evolves. A coach must provide reasonable care to their athletes, matching what would be expected from a reasonable, confident

and careful coach acting in similar circumstances. While the concept of standard of care is always the same, the specific actions or behaviors to fulfill that standard will vary with the circumstances depending on the setting, the nature of the activity, age of the participants, their skill level, and other factors.

3. Was the injury sustained due to the negligence of the coach? When a judge looks at such cases, he must find a reasonable degree of proximity between the coach's breach of the reasonable standard and the damage suffered.

What is now known as a result of the initial study conducted by this author (Nolt et al., 2013) is that head coaches are currently not discussing, in a style of progressive instruction, if at all, the consequences of alcohol consumption on health, wellness, and lifestyle and sport performance on a student-athlete. These data collected from that same study showed, in fact, that head coaches do not feel confident in their ability to instruct on this topic. Suppose, then, that a student-athlete, who has a known reputation for engaging in drinking behavior, is permitted to participate in a sporting event, practice or training workout and is injured. Is it possible, then, given what is stated above, that a lawsuit filed by this same student-athlete could find a coach negligent in whole, or in part, for said injury for failing to exercise duty of care through not recognizing the signs and symptoms of an athlete's poor sport performance which is compromised by alcohol?

According to Laskaridis (2009), a legal expert who works with the Greek Ombudsman, "...physical persons can also be held liable for omitting to inform the athletes about the effects of [illegal] drugs. These persons have usually a contractual fiduciary relation with the sportsman and that fact establishes a duty of care". (p. 1).

While this article's subject matter is compensation of a doped athlete, and alcohol is not

an illegal substance if the SA is aged 21 or over, generally, these same concepts of liability on the part of a head coach could apply with respect to alcohol use by a student-athlete. Maintaining the conceptual ideal of drinking within collegiate sport as a rite of passage is anecdotally reported by collegiate head coaches as time immemorial, and may now be facing its own mortality. To ignore the presence of a duty of care with respect to alcohol consumption by student-athletes places a head coach, his or her staff, and their institutions at greater legal risk.

Finally, in an article written by Stanton Peele (1990) entitled “A Values Approach to Addiction: Drug Policy that is Moral Rather than Moralistic”, the most successful “antidotes” to addiction are “pro-social values and behavior” (p.1). Peele (1990) also suggests that a value and skill based approach to addiction is more effective than a medical or admonishing approach to drug abuse. Peele asserts that no matter how benign a person’s use of a [substance] is, it still has the potential to become “broadly addictive.” In this article, Peele suggests that successful treatment is predicated on job and family involvement and other positive life connections. Suggested, too, is that remission from alcoholism can also be seen as a value statement in that “people prefer to have another type of life, and that other values and connections in their lives are more important to them than continued addiction or substance abuse” (p. 641). When considering this with regard to the current study, head coaches who use MI technique to conduct a brief intervention, who are efficacious in terms of their involvement with their athletes generally, and who regularly communicate with athletes about team expectations, could establish a strong foundation for a positive connection with athletes, which can guide

them to value choosing less risky behaviors, such as excessive drinking, and to prefer another more positive type of life.

## CHAPTER 3

### METHODOLOGY

#### Research Design

The research design of this interventional study is a pretest/posttest design wherein a pretest and posttest survey (Appendix E) is conducted before and after a two-hour training session. Prior to beginning the training, and after signing the informed consent, participants were asked to respond to a pretest survey regarding alcohol use, identifying signs and symptoms of alcohol use by athletes, and their knowledge and experience using motivational interviewing technique, and associated micro-skills.

#### Participants

The Institutional Review Board for Temple University approved this study on October 2<sup>nd</sup>, 2013 (Appendix F). Recruitment of participants began by way of email introduction to head coaches through professional contacts of the researcher. Solicitation for participants continued until the maximum of 30 participants had reserved spots, or up until the training date. The training was held at West Chester University, West Chester, PA on October, 7<sup>th</sup>, 2013.

A convenience sample of participants was sought through networking at professional conferences and through researcher presence on two Pennsylvania college campuses (Temple University in Philadelphia, PA and West Chester University in West Chester, PA). There were three criteria that participants met in order to participate in this training: the participant had to be over the age of 18, must hold the position of head coach at a college or university, and the institution must be part of any Division of the NCAA.

## Instrumentation

### Initial Study

A review of the literature yielded no existing measure for head coach knowledge of recognizing signs and symptoms of alcohol use or of confidence and self-efficacy to intervene with athletes who drink. To that end, a survey instrument was developed to quantify head coach knowledge, and attitudes, toward athletes who drink (Nolt et al., 2013) (Appendix E), as well as to quantify confidence in ability to intervene. This 33-item survey was designed to measure: coaches' confidence and knowledge of: the signs and symptoms of alcohol consumption by an athlete; alcohol's effect on athletic performance; past training on alcohol use as well as perceived effectiveness of the training; knowledge and enforcement of institutional and departmental alcohol use policy, and self-efficacy with respect to intervening with an athlete with an alcohol use problem. Items were derived from the author's review of the literature on substance abuse education, as well as professional experience. Twenty-five questions were single answer, multiple choice response questions, and eight questions asked respondents to elaborate on their answers to previous questions. Four colleagues whose qualifications include athletic training, Sports Medicine, collegiate head coaching, addictions counseling, and substance abuse education reviewed the instrument for logical validity with respect to the construct of coaches' self-efficacy to intervene with an athlete who drinks. Each reviewer validated that the instrument should measure what it is purported to measure.

## Interventional Study

The results of the implementation of the above- mentioned survey (Nolt et al., 2013) inform the development of the interventional study, which is the subject of this dissertation. This interventional study utilized a pretest/posttest survey which was adapted with permission from the Corcoran and Feltz (1993) study authors. In the Corcoran and Feltz (1993) study, the instrument developed was the Chemical Health Questionnaire, which was adapted from the DCCQ (Doping Confrontation Confidence Questionnaire), a 46 item measure of coaches' knowledge of "critical chemical information and of the chemical health intervention skills" (p. 300). This instrument underwent extensive review by experts with regard to the relevance of chemical involvement with athletes. This instrument was adapted to the current interventional study to measure the following content areas:

Confidence in:

1. knowledge of alcohol use by student-athletes
2. ability to identify uncharacteristic behaviors that might indicate alcohol use
3. ability to clearly state what you expect from your athlete's with respect to alcohol use
4. ability to successfully intervene with an athlete experiencing alcohol-related problems?
5. ability to educate your team about specific physiological and psychological effects that alcohol can produce?
6. ability to conduct a discussion about pressures that are unique to athletics and that could lead an athlete to use or abuse alcohol?
7. ability to communicate clear messages about team alcohol use expectation
8. regarding your ability to confront unacceptable behavior that is exhibited by your team specific to alcohol use?

9. regarding your ability seek assistance in the development of alcohol use education and coaching programs for your athletes?
10. regarding your ability to conduct a brief intervention about alcohol use using motivational interviewing technique?
11. regarding your ability to recognize the signs and symptoms of alcohol use by athletes?
12. in your knowledge of your institution's policies on alcohol use?
13. regarding your ability to confront unacceptable behavior that is exhibited on your team specific to alcohol use using MI technique?
14. regarding your ability to express empathy toward an athlete who drinks?
15. regarding your ability to develop discrepancy between an athlete's goals and current behavior?
16. regarding your ability to use affirmations to support positive goals and values of the an athlete?
17. regarding our ability to ask about the good things and bad things (benefits and costs) of engaging in alcohol consumption?
18. regarding your ability to engage in reflective listening (avoid directing, warning, threatening, persuading the athlete to change)?
19. regarding your ability to describe what motivational interviewing is, and how it would be used with a student-athlete?
20. your belief that a brief intervention by you as a head coach would benefit a student-athlete who drinks?

Prior to the start of the training, head coach attendees were asked to respond to the pretest with the level of confidence they have at the outset of the training. Upon completion of the training, participants were asked to complete the same survey as a posttest to ascertain what, if any, change in confidence level the head coaches may realize with respect to identifying signs and symptoms of alcohol use by athletes, and their ability to conduct a brief intervention using motivational interviewing technique. As

indicated above, participants were also measured with respect to confidence in various other variables such as the micro skills associated with MI technique, institutional policy on alcohol consumption, and knowledge, generally, of alcohol use by athletes.

In April 2013 (Northeast Atlantic Sport Psychology conference), and then again in May, 2013 (West Chester University) this training was piloted. In both pilots, the participants were of various occupations, including not only head coaches, but also athletic trainers, assistant coaches, students, and sport psychologists. The preliminary data obtained through the piloting of this training indicate an average increase (11.63%) in confidence with respect to knowledge of signs and symptoms of alcohol consumption and its effects on athlete performance. In some cases, however, individual participants indicated overconfidence on the pretest, and a drop in confidence at posttest with respect to this same question. One reason for this could be that head coaches really did not understand what the signs and symptoms of alcohol impaired sport performance would look like when answering the pre-test question, nor the physiological effects of alcohol on the body, and relied upon the self-reporting of alcohol impaired athletes to gauge the reasons behind poor sport performance.

Piloting data also showed a significant increase in confidence to intervene using MI as a brief intervention (46%). Once again, however, when examining the raw data, there were participants who indicated at pretest having very high confidence levels in using MI as a brief intervention, and that confidence level decreased at the end of the training. Perhaps this is indicative of participants not realizing what they really did not know about either subject matter until attending this training. Noticeably absent from these data were a measurement of the specific micro-skills addressed in the training, also

known as the five principles of MI. Upon completion of the analysis of these pilot data, changes were made to the intervention that would address these results.

These changes included a more interactive learning approach to the training which would require more frequent practicing of the particular skills required to conduct a brief intervention using MI. These skills include: the expression of empathy, the development of discrepancy, the use of affirmations, and the use of pros and cons lists to establish the benefits and costs of the targeted behavior (Training Workbook - Appendix G). According to Thomas, Dunn, Swift, and Burns (2011), information disseminated to educate on the use of substances should be directed and specific in nature. While the Thomas et al. (2011) study examined education with respect to illicit drug use by elite athletes, its results and discussion can easily be generalizable to other populations who may be an integral part of drug education programming with respect to athletes. It is worth noting that the elite athletes surveyed for the Thomas et al. (2011) study, and the knowledgeable experts who come in contact with elite athletes who were also interviewed for the qualitative piece to this same study, indicated that coaches and team trainers would be the least sought after individuals or group by athletes to gain insight to substance use. The explanation for this, according to Thomas et al. (2011), is that there is a perceived risk to the athlete that seeking information from staff would lead to an assumption by staff that a problem with the questioned substance exists when in fact one may not. This interventional training tailors the message to be specific to head coaches in an effort to ensure that when the brief intervention is then implemented by the head coach with an athlete who drinks, that intervention will also contain a specific message which is tailored for the athlete and will mitigate this perceived risk.

While the trend of these data from pilot statistics does suggest reliability in confidence levels for signs and symptoms of alcohol use by athletes, the motivational interviewing technique variable, while positively increased consistently from pretest and posttest, is still suggestive of additional scale reliability testing needed. The reason for this is that the pretest/posttest instrument was enhanced *after* both pilots to include evaluative questions for specific MI micro-skills related to the five main principles of MI. These new questions were not tested through piloting. However, given that the pretest and posttest piloting results within this variable prior to the changes suggests strong reliability, and given that this survey was adapted from a reliable and validated instrument from a previous similar study (Corcoran & Feltz, 1993), it is expected that these data obtained from the revised pretest and posttest are also reliable.

#### Procedures

The procedures for implementing this training for head coaches included the following:

1. After successfully registering for this interventional training, participants who attended the training were asked to give informed consent (Appendix H) to participate in this interventional study, their anonymous answers to the pretest and posttest are reported in aggregate as part of this dissertation. The pretest was completed (5-8 minutes).
2. Once the informed consent and pretest were completed, the participants viewed a video clip which illustrated the “wrong” way to conduct a brief intervention (displays of directing, judgmental, and lack of listening are demonstrated. (5 minutes)..
3. At the end of this video clip, another video clip is shown to participants. This clip demonstrates a brief intervention using MI technique in a medical setting. This clip

demystifies MI as a technique that is possible to learn, can be used in everyday encounters, and can be used with practice with athletes who drink (5 minutes).

4. The slide presentation of study results which informed this intervention was shown (Appendix I). Included in this part of the training is SAE information obtained during various studies that relate to the signs and symptoms of alcohol use, alcohol's effect on sport performance, and the consequences of alcohol consumption to athletes outside of sport performance. (10 minutes)

5. Instruction of all the items and skills as set forth in the pretest and posttest attached took place. After each skill was introduced, an interactive activity accompanied the educational portion to reinforce and practice the individual skill. Participants had time to practice through role-playing, interactive games, and questions and answers to ensure an acceptable comfort level with the practiced skill before moving to the next skill (60 minutes).

6. Once the new skills were reviewed and practiced, the medical video was viewed once again by participants who were asked to use a checklist of the skills learned to identify the number of times the MI facilitator in the video used each of the skills learned in the training. This served to reinforce awareness of the presence of each of these skills in an MI session (10 minutes).

7. A review of the handout "An Example of an MI Session" found in the training workbook (Appendix I) heightened further participant awareness to the components of a brief intervention using MI (10 minutes).

8. Wrap up, review, questions and answers, posttest (10 minutes).

9. Discussion for volunteers to participate in an outcome evaluation to measure effectiveness of this training (5 minutes).

10. Training completed.

## CHAPTER 4

### RESULTS

Collegiate head coaches lack confidence in their knowledge of alcohol use among athletes. Further, their attitude, as indicated in a survey conducted in 2012 by this author, is that referral to other resources will address this issue instead of their own direct intervention, and that there is an absence of confidence in head coaches' ability to intervene even if they possessed the knowledge. To that end, this interventional study has been conducted, whose purpose was to increase head coaches knowledge of the signs and symptoms of alcohol use by athletes (i.e., slower reaction time, fatigue, loss of coordination), and to train head coaches on the use of motivational interviewing technique as a means to conducting a brief intervention with athletes who consume alcohol.

#### Research Question:

Will a training on motivational interviewing (MI) technique be effective in increasing confidence and awareness of collegiate head coaches' with regard to signs and symptoms of alcohol use and how to conduct a brief intervention with a student-athlete who drinks?

#### Research hypotheses

The hypothesis was that upon completion of participation in this training, head coaches would gain the skills needed to increase their confidence, as well as ability, to intervene with an athlete who drinks. The current culture of excessive drinking by student-athletes is likely to continue in the absence of any type of direct intervention. The goals of this interventional training were to:

1. Increase confidence in participants' knowledge of the signs and symptoms of alcohol use by an athlete through the use of progressive instruction using a slide presentation created by this author and using current research specific to this subject.

2. Identify and/or recognize the link between alcohol use and athletic performance using pretest and posttest results along with current research to establish this direct relationship through progressive instruction using a slide presentation created by this author and using current research specific to this subject.

3. Increase confidence in participants' ability to conduct a brief intervention, using motivational interviewing (MI) technique as measured through the results of the pretest and posttest.

#### Statistical Analysis

Twenty-one participants attended the workshop, and received the training with 16 participants meeting the criteria to participate in this study. One head coach did not complete the survey; therefore, data from this participant were not included. The remaining five participants identified themselves as assistant coaches (2), or falling within the "Other" category, which includes academic and/or administrative personnel. Of the head coaches included in these data, there were nine males and six females. The sports represented varied and included: gymnastics, golf, rugby, football, baseball, volleyball, track and field, cross-country, lacrosse, soccer, tennis, swimming, basketball, and softball. Fourteen of the 15 head coach participants identified their ethnicity as Caucasian and one participant identified his/her ethnicity as African-American. Analysis was completed using paired sample t-tests. To demonstrate whether the change between the pretest and posttest is large enough to be considered meaningful a UNIANOVA for

effect size represented as partial eta squared ( $R^2$ ), and using a benchmark of .10, was performed in SPSS.

#### Results Related to Hypotheses

*Hypothesis 1 states that there will be an increase in confidence levels in participants' knowledge of the signs and symptoms of alcohol use by an athlete.*

**Results:** With regard to the pretest/posttest question 11 that directly addresses the signs and symptoms of alcohol use by athletes, there was a statistically significant increase from pretest to posttest (Q11- Pretest Mean=5.93, SD=1.58; Posttest Mean=6.93, SD=1.16;  $p=.006$ ;  $R^2 = .434$ ). In addition to the specific question of signs and symptoms, other questions also support this hypothesis. For example, question 1 relates to confidence, in general, about knowledge of alcohol use by athletes. Results showed an increase of confidence between pretesting and post testing (Q1 – Pretest Mean=6.20, SD=1.26; Posttest Mean=6.87, SD=1.25;  $p=.065$ ;  $R^2 = .178$ ). This result was just above statistical significance, and further demonstrates an increase in confidence level with respect to recognizing the signs and symptoms of alcohol use among athletes (See Table 1). Additionally, question 2 concerns confidence in individual ability to identify uncharacteristic behaviors exhibited by an athlete that may be indicative of an alcohol use problem, and which resulted in a statistically significant increase in confidence and also supports this hypothesis (Q2 – Pretest Mean=5.73, SD=1.53; Posttest Mean=6.86, SD=1.06;  $p=.001$ ;  $R^2=.523$ ). In question 5, head coaches also indicated an increase in confidence levels in their ability to educate their team about specific physiological and psychological effects that alcohol can produce (Q5- Pretest Mean=5.67, SD=1.40; Posttest Mean=7.133, SD=.915;  $p=.001$ ;  $R^2 =.582$ ). None of the participants would be

able to do this without first being able to identify the signs and symptoms of alcohol use by an athlete.

*Hypothesis 2 sought to identify and/or recognize the link between alcohol use and athletic performance using pretest and posttest results along with current research to establish this direct relationship.*

**Results:** This hypothesis was tested indirectly through data collected from pretesting and post testing. Several questions related to identifying the signs and symptoms of alcohol use were asked (Q1, Q2, Q5, Q8, and Q11) which would require initially recognizing a change in athletic performance such as those presented in the training slides (e.g., slower reaction time, decrease in timed distance, and decrease in eye hand coordination). If participants have shown a statistically significant increase in their ability to identify signs and symptoms of use as indicated in H1 above, then they would conceivably only know this through observing altered sport performance (See Table 1).

*Hypothesis 3 states that participants will demonstrate an increase in their confidence levels with respect to their ability to conduct a brief intervention, using motivational interviewing (MI) technique.*

**Results:** There was a statistically significant increase in confidence levels from pretest to posttest results as demonstrated in responses to question 13 (Pretest Mean=3.60, SD=2.29; Posttest Mean=7.27, SD=.961;  $p=.001$ ;  $R^2 = .006$ ). While the effect size is below .10, this may be explained by the confounding variable of a small sample size. Questions that directly and indirectly address confidence in using MI technique were included within the pretest and posttest. Specifically, participants were asked directly about their confidence levels with respect to their ability to conduct a brief intervention

using MI as indicated above. Participants were also asked about specific micro-skills within MI (Q14-Q18) that resulted in an increase in confidence level to conduct a brief intervention using this technique (e.g., ability to express empathy increased [Q14- Pretest Mean=6.53, SD=1.60; Posttest Mean=7.73, SD=.961;  $p=.001$ ;  $R^2 = .563$  ] ); ability to develop discrepancy between goals and current behavior increased as well (Q15 - Pretest Mean=6.33, SD=1.40; Posttest Mean=7.67, SD=.1.05;  $p=.001$ ;  $R^2 = .383$ ); and ability to engage in reflective listening increased (Q18 - Pretest Mean=7.60, SD=1.05; Posttest Mean=7.40, SD=.828;  $p=.486$ )]. While not all of these differences are statistically significant, they do affirm an overall increase in confidence level of participants to use MI technique as a means to conducting a brief intervention with student-athletes who drink. Table 1 below illustrates the complete results of the two-tailed t-tests conducted for pretest and posttest outcomes for all questions.

Table 1: Survey Results: Head Coach Brief Intervention Training (HCBIT)

Survey Questions: Indicate your confidence in...	Pre Mean	Pre SD	Post Mean	Post SD	$\rho$ value
1. your knowledge of alcohol use by athletes today	6.2000	1.26491	6.8667	1.12546	.065
2. ability to identify uncharacteristic behaviors that might indicate alcohol use	5.7333	1.53375	6.8667	1.06010	.001
3. ability to clearly state what you expect from your athlete's with respect to alcohol use	7.2000	1.52128	7.3333	1.17514	.582
4. ability to successfully intervene with an athlete experiencing alcohol-related problems?	5.5333	1.45733	7.2000	.67612	.000
5. ability to educate your team about specific physiological and psychological effects that alcohol can produce?	5.6667	1.39728	7.133	.91548	.000
6. ability to conduct a discussion about pressures that are unique to athletics and that could lead an athlete to use or abuse alcohol?	5.3333	1.34519	7.4000	.91026	.000
7. ability to communicate clear messages about team alcohol use expectation	7.000	1.77281	7.5333	1.12546	.027
8. regarding your ability to confront unacceptable behavior that is exhibited by your team specific to alcohol use?	6.8667	1.55226	7.4000	.82808	.120
9. regarding your ability seek assistance in the development of alcohol use education and coaching programs for your athletes?	6.5333	1.88478	7.4000	.82808	.037
10. regarding your ability to conduct a brief intervention about alcohol use using motivational interviewing technique?	4.4000	1.63881	7.4000	.82808	.000
11. regarding your ability to recognize the signs and symptoms of alcohol use by athletes?	5.9333	1.57963	6.9333	1.16292	.006
12. your knowledge of your institution's policies on alcohol use?	6.7333	1.70992	6.9333	1.70992	.510
13. regarding your ability to confront unacceptable behavior that is exhibited on your team specific to alcohol use using MI technique?	3.6000	2.29285	7.2667	.96115	.000
14. regarding your ability to express empathy toward an athlete who drinks?	6.5333	1.59762	7.7333	.96115	.001
15. regarding your ability to develop discrepancy between an athlete's goals and current behavior?	6.3333	1.39728	7.6667	1.04654	.000
16. regarding your ability to use affirmations to support positive goals and values of the an athlete?	6.9333	1.27988	7.4000	.91026	.187
17. regarding our ability to ask about the good things and bad things (benefits and costs) of engaging in alcohol consumption?	7.7333	.79881	7.5333	1.12546	.271
18. regarding your ability to engage in reflective listening (avoid directing, warning, threatening, persuading the athlete to change)?	7.6000	1.05560	7.4000	.82808	.486
19. regarding your ability to describe what motivational interviewing is, and how it would be used with a student-athlete?	4.000	2.47848	7.7333	1.03280	.000
20. your belief that a brief intervention by you as a head coach would benefit a student-athlete who drinks?	6.6667	1.98806	7.4667	1.24595	.111

n=15,  $p < .05$ , confidence scale 0=lowest-9=highest

## Discussion Related to Each Hypothesis

### H1 Discussion

*Hypothesis 1 states that there will be an increase in confidence levels in participants' knowledge of the signs and symptoms of alcohol use by an athlete.*

In the initial study, which informs this intervention (Nolt et al., 2013), nearly 60% of head coach respondents indicated that they were not very confident in their ability to identify the signs and symptoms of alcohol use by student-athletes, and this then affected their ability to address alcohol use on the team. This current study sought to improve the confidence levels of head coaches to recognize these signs and symptoms as one of many ways to implicate alcohol impairment with respect to sport performance, and then subsequently address it. The survey for this study was carefully constructed to address this hypothesis in several ways.

Question 11 directly measures this variable. Other questions (Q1, Q2, and Q5) indirectly address this hypothesis by asking about a head coach's ability to recognize altered sport performance that could be explained by alcohol use. The signs and symptoms of alcohol use manifest differently in sport. Slower reaction time, reduced or loss of eye hand coordination, fatigue, excessive sweating due to alcohol related dehydration, and slower timed distances are only a few of the ways in which the signs and symptoms would appear within sport performance. While many of these would also be exhibited by anyone under the influence of alcohol, this hypothesis assumes that these signs and symptoms would be somewhat understated initially, and therefore not so obvious, until sport performance is elicited. The results of this study demonstrate that including this as part of the alcohol use education component of this training could

potentially mitigate the prevalence of a lack of awareness by head coaches of the signs and symptoms of alcohol use by student-athletes and thereby increase a head coach's confidence in their ability to address the issue.

## H2 Discussion

*Hypothesis 2 sought to identify and/or recognize the link between alcohol use and athletic performance using pretest and posttest results along with current research to establish this direct relationship*

Many studies have already quantified the direct relationship between alcohol use, and impaired sport performance (O'Brien & Lyons, 2000; Underwood, 2010; Vella & Cameron-Smith, 2010). What this current study set out to do was present this direct relationship using the existing research, and making that research relevant to participants as part of their jobs as effective coaches. This training distinguished between the stereotypical drunken behavior of someone who has just imbibed and the more subdued, not so obvious behaviors of an athlete who was binge drinking two days prior to a practice, or game, and may still be impaired.

The results of this study showed an increase in confidence levels of participants to identify altered sport performance, which may be attributable to alcohol. Qualitative data from the training suggest that participants, upon spotting an athlete with altered sport performance, were more likely to question the athlete, and accept whatever explanation was proffered. Several participants indicated that some athletes would say that they were coming down with something, not feeling right, needed some rest, were having relationship issues, or were stressed due to schoolwork. All participants agreed that the first thought was to accept the explanation, and rarely did it occur to them to relate

alcohol to the issue unless the athlete had a reputation as an excessive drinker.

Participants did also indicate, anecdotally, that they would now know what to look for, and would probably think alcohol first, and then ask targeted questions to establish the root cause of the altered sport performance.

### H3 Discussion

*Hypothesis 3 states that participants will demonstrate an increase in their confidence levels with respect to their ability to conduct a brief intervention, using motivational interviewing (MI) technique.*

The results of this study resoundingly demonstrate an increase in confidence levels with respect to conducting a brief intervention using MI technique. While participants were unfamiliar with MI prior to the training, as indicated by the pretest means for relevant survey questions (Q13-Q18); they also demonstrated a 93% increase in confidence level to describe what MI is, and how it can be effective in helping an athlete who drinks (Q19- Pretest Mean=4.0, SD=2.48; Posttest Mean=7.73, SD=1.03;  $p=.001$ ). In the Nolt (2013) study, participants indicated that their preferred response to an athlete with alcohol related issues was to refer them to another professional for help. Nearly 40% of respondents in this same study indicated that even if they knew of an athlete with alcohol related issues, they would not know what to say to help.

These study results affirm this hypothesis as this part of the training succeeded in raising participant confidence levels such that they indicated they could now conduct a brief intervention using MI techniques. Qualitative feedback on this training indicates, however, that more time to practice the MI skills would have been helpful. Additionally, participants indicated that more role modeling of the skills by the trainer would have

given them a more effective visual of these skills in action than the MI relevant video which was used to supplement the interactive role-playing. Feedback on the MI relevant video was positive, however, and participants did suggest its continued use. Participants also anecdotally indicated that the training workbook was helpful in implementing the learned skills during role-play activities.

### General Discussion

In addition to the above results, the survey results also included questions 3 and 7 which asked head coaches about their confidence in their ability to clearly state, or communicate, what they expect from their athletes with regard to their alcohol use. While these data did not show a statistically significant increase (2% for Q3; and 8% for Q7), participant's pretest responses started at a Mean of 7.3 (Q3), and 7.0 (Q7) on a scale of 0 = lowest-9 = highest. Interestingly, respondents to the survey of the initial Nolt (2012) study indicated 42% of respondents to a similar question said that they do not speak regularly with their team about the consequences of alcohol consumption, or about expectations. So while participants in this current study indicate a moderate amount of confidence regarding their ability to communicate clearly their expectations, they may be choosing not to, and there is no indication that they would start to do so.

Similarly, participants had a statistically significant increase in confidence with respect to their perceived ability to conduct a discussion about pressures that are unique to athletes, and that could lead to use or abuse of alcohol (Q6 - Pretest Mean=5.3, SD = 1.34; Posttest Mean – 7.4, SD =.910;  $p=.001$ ;  $R^2$  - .490). However, if coaches are not inclined to discuss alcohol expectations regularly with their athletes, even though they now demonstrate a confidence in their ability to do so, then the culture of excessive use

of alcohol within collegiate athletics is likely to continue. It is these data, specifically, that inform the interactive activity called “Add a Word” which is incorporated into this training. Interactive activities are described as “activities that typically generate ideas that build on each other, but only when all [students] contribute substantial intellectual effort in collaborative settings” (Meneske, Stump, Krause, & Chi, 2013, p. 39). The interactive activity entitled “Add A Word” (Appendix J) as created by Tom Jackson (1995) is incorporated as an activity which will illustrate for participants that saying nothing to a student-athlete who drinks is counterproductive, could be injurious, and is an approach to the problem which has reaped few rewards in changing student-athlete alcohol related risky behaviors.

According to Jackson (1995) “When there is a problem to solve, or a discussion about a topic, the more people that provide input the better the outcome” (p. 67). The purpose of this activity is to emphasize to the participants that what they bring to a conversation with an athlete who drinks comes from a “reservoir of knowledge” on the subject that the student-athlete will not possess. In the absence of any conversation at all from a head coach (or other team staff), the only reservoir of knowledge that student-athletes can draw upon is their own and that of their teammates, whose reservoirs are as limited in content as their own. Therefore, it is imperative that head coaches begin a person-centered, guiding, dialogue with a student-athlete who drinks, and suffers the consequences, which in turn affects the whole team.

Additionally, question 4 measured confidence levels with respect to a participant’s ability to successfully intervene with an athlete who is experiencing alcohol-related problems. Results for Q4 demonstrated a statistically significant increase (30%)

in confidence to intervene with the Pretest Mean = 5.5, SD = 1.45; Posttest Mean = 7.2, SD = .676;  $p=.001$ ;  $R^2 = .371$ . Question 10 also measured confidence level with respect to conducting an intervention; only its wording was a little different. This question measured confidence in ability to conduct a brief intervention about alcohol use using MI technique. Results indicate a statistically significant increase of over 68% (Pretest Mean=4.4, SD=1.63; Posttest Mean=7.4, SD=.828;  $p=.001$ ;  $R^2 = .160$ ).

Of particular interest with regard to intervening is that both questions 8 and question 13 ask participants for their confidence levels with confronting unacceptable behaviors exhibited on the team that are specific to alcohol use, which essentially means to intervene. The only difference between the two questions is that Q13 included the use of MI technique to do this, and Q8 did not. Results for Q8 demonstrated an increase in confidence of 8%, while Q13 demonstrated a nearly 102% increase in confidence levels. One explanation for this could be that participants are feeling empowered by knowing how to do an intervention with MI technique, and therefore feel they can confront unacceptable behaviors on the team. However, as indicated above, there was a 30% increase in confidence level (Q4) to successfully intervene with an athlete who drinks. The varying range of percentage increase in confidence levels for these questions, which ask the same thing, is worth exploring further.

Another possible explanation for this phenomenon can be found in the raw data. The starting point for the participants for each question, on a scale of 0– 9, varied greatly. For the question with the greatest increase (Q13), participants began at a Pretest Mean of 3.6 (SD=2.29;  $p=.001$ ), and therefore had a lot of room for improvement. The Posttest Mean for this question was 7.2, which indicates that with practice, and time to master

these skills, participants could improve further up the scale. Since MI technique was something most of the participants had never encountered before, this result was likely. Q8 had a Pretest Mean of 6.8 (SD=1.5;  $p=.12$ ), and Q4 had a Pretest Mean of 5.5 (SD =1.45;  $p=.001$ ). Since these pretest means are higher than Q13, the variance between percentage increases of confidence may be due to the wording of the survey question. Q4 did not use the word 'confront', and therefore the interpretation of this question by the participant may not have paralleled an intervention, but rather a contentious confrontation as opposed to 'meet something face to face.'

These results clearly indicate that this training demonstrates a vast improvement in the participants' confidence in their perceived ability to use skills which identify a student-athlete whose sport performance may be affected by alcohol. Additionally, the training has resulted in a heightened awareness of the benefits of a brief intervention by head coaches using the skills related to MI technique. Emphasized within this training is that head coaches can no longer afford to play the role of silent collaborators in the issue of alcohol consumption by student-athletes. In the Nolt (2013) study, nearly 40% of respondents indicated that even if they confirmed that a student-athlete needed help with regard to their drinking behaviors, the coaches would not even know what to say. In fact, nearly 20% indicated that referral to another person was their preferred response. While this training is not intended to negate the continued use of a referral to a professional, it is intended to engage the head coaches to be active in the process of guiding a student-athlete with a drinking problem rather than not be part of the process at all. The landscape of the issue of alcohol use by student-athletes has not changed in decades. Head coaches have historically not taken any role, or for some a lesser role, in addressing

alcohol on their teams. This training can help to increase the likelihood that a head coach will do so in the future. Additionally, this training takes a comprehensive approach to raising the confidence levels of participants utilizing alcohol use education, combined with progressively instructing on the micro-skills of motivational interviewing (MI) technique. The practice and use of these skills provides the means in which to conduct a brief intervention.

Since its inception, MI has been used to address problems related to alcohol consumption in general. Patients diagnosed with alcoholism experienced MI technique in treatment as early as 1983. The founders of MI technique were Drs. William Miller and Stephen Rollnick, and they describe MI as a technique used to overcome one's ambivalence to behavior change, the successful use of which is predicated on a facilitator's ability to be empathetic, person-centered, and engage in a guiding style of communication (Rollnick, 2008). These characteristics, historically, may not be key characteristics for a "traditional" collegiate head coach, which anecdotally might include high levels of directing and judgment, but a coach or any member of the athletics staff can learn this technique. This training draws upon the eight tasks in learning MI as described by Miller and Moyers (2007) (Appendix K). These tasks include understanding the overall spirit of MI, becoming proficient in the skill of asking open-ended questions and reflective listening (OARS), recognizing change talk, rolling with resistance, developing a change plan (establishing goals), consolidating an athlete's commitment to change, and transitioning and blending MI with other styles to enhance motivation for change.

Given these data, it is interesting to note that results also indicate that participants' *belief* that a brief intervention led by a head coach would benefit a student-athlete who drinks improved by a modest 12% (Q20: Pretest Mean: 6.67, SD =1.98; Posttest Mean: 7.46, SD = 1.24;  $p = .111$ ). This is noteworthy given the degree to which improvement occurred in all the skills used to conduct a brief intervention, as stated above. One explanation may be a personal bias by the head coach that this is essentially "not part of what I do." Head coaches with a staff of assistant coaches and athletic trainers may believe that involvement to this level in an athlete's private life is better suited to others. According to Park and Lyle (2013) leaderships is defined as the process of influencing individuals and groups toward set goals. With little to no intervention by head coaches, the issue of excessive alcohol consumption has not abated over the years. This research study provides head coaches with the ability to be part of the discussion on how a student-athlete can improve not only sport performance, but generally as well. When viewed from this perspective, it would be easy to say that intervening is part of the job of a head coach, and therefore a head coach should do so. Head coaches are the top leaders of their team(s). The characteristics of an effective head coach include exercising their leadership skills not just in sport, but also modeling responsibility and credibility in life. By taking part in an intervention to help an athlete who drinks set and meet goals without alcohol issues, a head coach is fulfilling those roles, and contributing to the well-being of their athlete.

Perhaps, as the Self-Efficacy theory of health behavior suggests, in order to materially affect one's belief system, there must be a certain level of confidence that one will succeed at the task to be performed. What was absent from this study was a measure

of the amount of practice head coaches would need to master these skills enough to have materially changed their belief in the effectiveness of these skills. Each participant would have needed varying amounts of time to master a particular skill. According to Hayden (2009), mastery experience provides opportunity for people to “become proficient at new skills and increase self-efficacy.” (p. 8). This then is the basis for providing such experiences as workshops, training programs, internships, and clinical experiences.

Additionally, Bandura (1977) suggests that the use of imagery to assist participants in achieving mastery of the skills presented in this study may reduce, or even eliminate, apparent defensive behaviors in head coach participants. Imagery, in this sense, would come in the form of participants imagining they are conducting brief interventions, under various circumstances, and using the MI skill(s) they fear the most. By repeatedly exposing themselves, mentally, they can correct their own failures, and feel empowered by their successes. The more comfortable participants become with their imagined encounters, the more likely they are to have reduced fear of actually conducting a brief intervention with athletes who drink, and who suffers the consequences of their risky behaviors. This then is an opportunity for future research on the effectiveness of the use of imagery under these circumstances.

Combining the educational approach of recognizing the signs and symptoms of alcohol use, with an interactive approach of learning MI technique, means that a participant is ready to engage in a brief intervention with a student-athlete who drinks, and who suffers the related consequences of his or her own drinking behaviors. To allow for practice of these skills, participants engaged in role-play using the newly acquired micro-skills mentioned above. Participants were provided with a workbook that contains

helpful hints to conducting a brief intervention. Participants were divided into groups of four or five. One member would role-play as the coach, one would role-play a student-athlete who drinks, and the other group members would be participant observers who would write down each time they observed the “coach” using an MI skill. Following this interactive exercise, each group would provide a debriefing of the experience, focusing on the most challenging of the skills, and the most rewarding. Anecdotally, the most challenging skill was to artfully ask specific open-ended questions which would guide the student-athlete to discussion of the targeted behavior.

The research question for this study sought to explore if a training workshop on motivational interviewing (MI) technique would be effective in increasing confidence and awareness of collegiate head coaches’ with regard to signs and symptoms of alcohol use and how to conduct a brief intervention with a student-athlete who drinks. As these data presented above demonstrate, such a workshop is effective in heightening awareness, and raising confidence levels, of head coaches’ knowledge and ability to conduct a brief intervention with an athlete who drinks. These data affirmed that increasing awareness of the signs and symptoms of alcohol use, as it relates to athletic performance, and training on how to conduct a brief intervention using MI technique is effective in empowering head coaches to confront unacceptable behavior specific to alcohol use among athletes. While these data do demonstrate that participants are empowered to conduct a brief intervention with athletes who drink, it is unclear whether or not they will actually do so. A follow up study to quantify this is recommended to capture those data.

Question 13 specifically measured the confidence levels of participants in their ability to confront unacceptable behavior related to alcohol use problems, and using MI skills to do so. The improvement of over 101% in confidence levels in which to achieve this affirms the importance of trainings such as these. While these data suggest that head coaches are less confident in their *belief* that an intervention by them would be helpful, it is clear that this training provides them with an opportunity to explore a higher degree of engagement in this issue than has previously existed.

#### Implications for Research

Implications from this research are that head coaches require not only an initial training on alcohol use and abuse among student-athletes, but ongoing input, beyond the training as well. Booster sessions of training on alcohol use, as well as the effective use of MI technique would also be helpful toward mastery of the skills taught within this study. Further, head coaches should communicate regularly their expectations with regard to alcohol use to their teams. A multi-leveled, comprehensive approach to alcohol is needed to reduce the likelihood of alcohol related injury and impaired sport performance.

Longitudinal, evaluative outcome studies can quantify the long-term benefits and costs to this type of interventional training. Such studies would measure the use and effectiveness of the MI skills taught within this training. It is clear that training such as this would require perhaps one more additional hour to allow for additional time to role-play and demonstrate MI skills. Given that the participants expressed a desire for more interactive activity time, further research is recommended on the effective use of imagery to develop mastery of the MI specific micro-skills to increase the likelihood that head coaches, coaching staff and trainers will utilize these skills for brief interventions on an

ongoing basis. This workshop could easily be extended to a full day workshop to allow not only for additional skill practice, but also for more in depth case study discussion.

#### Implications for Practitioners

Head coaches were generally knowledgeable about alcohol and its effects on athletes; however, a substantial proportion felt that drinking within athletics is a rite of passage. Therefore, and practically speaking, any coaching or athletic staff who may encounter athletes who engage in risky behavior related to alcohol consumption would benefit from this training. If head coaches remain, even after the training, only willing to refer an intervention out to others, than athletic trainers would be the closest staff person to the athletes who should receive this training as well. While this training would succeed in providing coaches, and athletics staff the tools to conduct a brief intervention with an athlete who drinks, recipients of this training should continue to explore their own skill enhancement through reading resources provided within this training, and through web exploration.

Further, Administrators and Athletic Directors should work more closely with head coaches to ensure that the institutional alcohol policies are well-written and effectively communicated to athletes to say nothing of enforced. Head coaches should play a *continuous* role in how these policies are enforced to mitigate future injury to athletes, and high-risk behaviors. Finally, head coaches hold a duty of care to athletes to progressively instruct on alcohol policies, and expectations. Head coaches should practice the skills gained through this training regularly to ensure that they maintain or improve on their effective use. Engaging others in their practice of these skills, prior to having actually to use them with an athlete who drinks, can add substantive experience to

the application of MI skills. Head coaches should be well informed on drinking trends of student-athletes, and constantly updated on new skills to ensure mastery of these skills in the future.

CHAPTER 5  
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS  
FOR FUTURE RESEARCH

Summary

The initial study conducted by Nolt et al. (2013) sought to explore the confidence, and self-efficacy, of collegiate head coaches with respect to their ability to intervene with student-athletes who consume alcohol and thereby place themselves at a greater risk of alcohol related injury. Respondents to that survey did indicate that they do *not* feel confident in their ability to intervene, which is indicative of either a lack of skill to do so, or the confidence to intervene, or both. Assuming that the reason for this is both, an interventional training which addresses both of these was conducted to increase the likelihood that a head coach would then be empowered to intervene with a student-athlete who drinks. This training was developed and implemented for just this purpose. This training specifically addresses the results from Nolt et al. (2013) as shown in Figure 1 below.

Figure 1 - Results of Nolt et al. (2013) survey which inform this intervention

<ul style="list-style-type: none"><li>• 58.6% of Head Coaches were only <i>somewhat, or not at all, confident</i> in their ability to recognize the signs and symptoms of alcohol consumption</li></ul>
<ul style="list-style-type: none"><li>• 19.5 % were <i>only somewhat confident, or not at all confident, in their</i> ability to intervene beyond a referral to a professional or someone else on campus</li></ul>
<ul style="list-style-type: none"><li>• 51.2% were only <i>somewhat, if at all, familiar</i> with their own institution's policies regarding alcohol consumption (and therefore probably not enforced)</li></ul>
<ul style="list-style-type: none"><li>• 39% indicated that even if they did confirm alcohol use by a student-athlete, they do not feel confident that they would know what to say to help</li></ul>
<ul style="list-style-type: none"><li>• 40% indicated that whatever training they have had to date was only somewhat effective or not effective at all</li></ul>

To further invite participants to engage in a brief intervention with athletes who drink, a discussion about the characteristics of an effective coach is also included as part of this training. On many levels, participants will have a varied blend of the characteristics that make up an effective coach such as sincerity and effort (aka commitment), concern for athletes, role modelling, credibility, love of the sport, and responsibility (Park & Lyle, 2013).

Underpinning these data is the fact that all coaches have a legal obligation called a duty of care to ensure that athletes are completely ready to participate in a practice, workout, or game through progressive instruction. Maintaining the conceptual ideal of drinking within collegiate sport as a rite of passage, which is reported anecdotally by collegiate head coaches as time immemorial, may now be facing its own mortality.

Results affirm that an interventional training, which includes alcohol education combined with motivational interviewing technique, successfully increases head coach confidence levels in perceived ability to conduct a brief intervention with an athlete who drinks. These results include an increase in confidence levels with respect to perceived ability to implement skills such as: successfully conduct a brief intervention using MI technique; the ability to educate the team on the physiological and psychological consequences of alcohol use; and an increase in the ability to recognize the signs and symptoms of an athlete who may be impaired by alcohol when attending a practice, workout or game. At the outset of this training, participants indicated that they were not confident in their ability to intervene at all, and preferred, in fact, to refer this issue out to someone else.

## Conclusions

**C1:** Training such as this one presents head coaches, assistant coaches, athletic trainers and directors, as well as institutional administrators, an opportunity to address, proactively, excessive alcohol consumption by student-athletes through alcohol specific education. In order to do this, head coaches, and staff, need to be trained to do a brief intervention with an athlete who drinks and suffers the consequences related to risky behavior. This training should include being able to identify the signs and symptoms of alcohol use by student-athletes, and alcohols effect on sport performance as well as using MI technique.

**C2:** Head coaches, athletic staff, and institution administrators would benefit from understanding the relationship between alcohol and its effect on sport performance. This training demonstrated an increase in confidence levels, as well as ability, to conduct a brief intervention with an athlete who has suffered the consequences of risky alcohol related behaviors, including those related to sport performance. Consequences include a loss of training effect, reduced eye hand coordination, increase in negative physiological symptoms, increased fatigue, and others. Clearly understanding the direct relationship established within this training enhances head coaches, and coaching staff's ability to successfully intervene.

**C3:** Head coaches' feel more confident in their ability to intervene with athletes who drink when they are trained on motivational interviewing technique, and how to identify the signs and symptoms of alcohol impaired sport performance. This technique is user-friendly, and draws on one's own ability to be empathetic, curious, and warm with a true

sense of wanting to help others. Outcomes related to the use of MI have been shown to be effective, and sustainable.

#### Recommendations for Future Research

- Researchers are encouraged to expand on the current study by assessing the effectiveness of this training within different sports, and various demographic groups
- A change to an experimental research design wherein there are comparison groups is recommended. One group would receive the intervention (training as described above) and another group would only be provided with educational materials relevant to MI technique and alcohol consumption. The relevant alcohol use materials would be print media only for this control group, as would the MI specific materials.
- Qualitative studies are recommended to assess the long-term effectiveness of this training for head coaches specifically, but could also be conducted with assistant coaches and athletic trainers who have received the initial training.
- Studies could also be conducted following a coach or trainer who has conducted a brief intervention with an athlete who drinks, as well as the athlete to measure the effectiveness of the intervention from the athlete's perspective.

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## APPENDIX A

NOLT, SACHS, & BRENNER, 2013

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### **The Effects of Collegiate Head Coaches' Knowledge and Attitudes Towards Alcohol Consumption by Student-Athletes**

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#### Abstract

A host of studies have documented the consumption of alcohol, to a degree that is dangerous to health and well-being, among college students (Brenner, Metz, & Brenner, 2009; Harris et al., 2010; Leichleiter et al., 1998; Martens, O'Connor, & Paiement, 2006). Other studies indicate college athletes indulge in a higher level of alcohol consumption than their non-athletic peers (NCAA, 2006; Williams, Jr. et al., 2008). There is a continuing culture of *excessive* consumption of alcohol among college athletes. When reading headlines about a collegiate athlete who dies because of misusing alcohol, one might ask how the issue continues to be such a problem, and what people can do about it. Data from this study indicate that part of this issue may be due to lack of self-efficacy on the part of collegiate head coaches to address and intervene on behalf of athletes who misuse alcohol. This article presents data that quantify the knowledge, attitudes, and beliefs of collegiate head coaches with regard to the alcohol consumption of their athletes. Additional data from this study indicate that head coaches do not feel confident in their ability to identify the signs and symptoms of athletes who drink and indicate that they are not efficacious in their ability to help, or if they know how to help.

**Keywords:** alcohol, head coach, self-efficacy, duty of care, motivational interviewing, intervention

## Introduction

A host of studies have documented the consumption of alcohol, to a degree that is dangerous to health and well-being, among college students (Brenner, Metz, & Brenner, 2009; Harris et al., 2010; Leichleiter et al., 1998; Martens, O'Connor, & Paiement, 2006). Other studies indicate that college athletes indulge in a higher level of alcohol consumption than their non-athletic peers (NCAA, 2006; Williams, Jr. et al., 2008). There is a culture of *excessive* consumption of alcohol among college athletes. When reading headlines about a collegiate athlete dying as a result of misusing alcohol, one might ask how the issue continues to be such a problem, and what people can do about it.

Noticeably absent from this information is data that captures what collegiate head coaches know about alcohol consumption among their athletes, what coaches' attitudes are toward alcohol consumption, and how empowered coaches feel about being able, or willing, to address alcohol consumption. To explore this, a literature review of the characteristics of an effective coach will inform the larger discussion of head coaches' ability to intervene on behalf of athletes who drink. Such characteristics include, among other things, being adept at teaching values, character, morals, and life skills, in addition to the skills to perform in their chosen sport (Walinga, 2012). In a qualitative analysis of leadership characteristics among Korean coaches performed by Park and Lyle (2013), emergent characteristics of successful coaches included eight dimensions, *attitude and philosophy* among them. In this context, attitude and philosophy entail a concern for athletes, role modeling, credibility, and responsibility, in addition to a love of sport. To some degree, concern for athletes also includes management of athletes' private lives. Park and Lyle (2013) also note that pedagogy necessitates "a leadership role in managing the necessary intervention to bring about improvements in performance" (p. 84). A focus on the process of coaching, as in sound practice, rather than the outcomes, embraces a higher meaning to athletes.

In a study of athletes' perceptions of coaching effectiveness, Boardley, Kavussanu, and Ring (2008) describe effective coaches as those who, through their own behaviors, produce positive outcomes in their athletes. This study operationalized the coaching self-efficacy model, as a study by Corcoran and Feltz (1993) present, which was based upon the Self-Efficacy theory of health behavior Bandura (1977) developed. Self-efficacy, as Bandura (1977) describes, is one's *belief* in one's ability to perform a skill or desired action. The results of the study by Boardley et al. (2008) indicate there is a direct relationship between athletes' positive perceptions of their coaches' effectiveness in such areas as motivation and sportsmanlike behavior. Boardley et al. (2008) suggest coaches' behaviors exert some influence on athletes through the perceptions of athletes. This study also suggests that "athletes who perceived their coach as effective in technique were more likely to report being more confident in executing key [rugby] skills" (p. 283). This could be helpful in informing the discussion on athletes' perceptions of head coaches' attitudes toward athlete alcohol consumption. However, this may not be true when it relates to alcohol consumption, as a study by Williams, Jr., Perko, Usdan, Leeper, Belcher, and Leaver-Dunn (2008)

reports, which indicates the alcohol rules of coaches had no impact on athletes' alcohol behaviors.

Williams, Jr. et al. (2008) applied the Social Ecological model of health behavior, which suggests there are multiple levels of environmental influence that affect an individual's health behaviors, including not only self but also friends and family, community, workplace, and policy. All of these are potential sources of influence that can lead an individual to engage in pro-social or anti-social behaviors. Results from the Williams, Jr. et al. (2008) study show influence on athletes' alcohol consumption results from the athletes themselves (intrapersonal level of influence) as well as their teammates' attitudes toward drinking (interpersonal level of influence), rather than from their coaches' influence.

Regardless of the contradiction present in the literature regarding whether head coaches influence their athletes' personal behavior, the fact remains that the very essence of being a coach, especially a collegiate head coach, comes with the *duty of care* toward the well-being of those for whom they are responsible. Assuming, for the purpose of this article, that all collegiate head coaches show care and concern for their athletes, whether star player or benchwarmer, there is also the legal obligation known as "duty of care" that coaches have toward their athletes. *Duty of care* is all the reasonable steps a coach must take to prevent injury to athletes, "including ensuring participants are prepared for all aspects of the activity by means of progressive instruction" (Grossman, 2009, p. 13). Many of the head coaches who participated in the survey for this article indicate they enforce an implied policy called the 48-hour rule of drinking. Drew Potthoff (1996), a football coach at Syracuse High School, in Illinois, posed several questions that may be applicable here: Do these rules really work, or are they "window dressing" for administration, or parents, or both? Do athletes consider these rules a joke and believe no one is really interested in them? Do coaches look the other way when their athletes are at risk (Coach & Athletic Director, 1996)?

This 48 hour rule is not sanctioned by most institutions nationwide, nor the NCAA, and implicitly states that an athlete should not consume any alcohol within 48 hours leading up to a practice or game. While the intent of this article is not to discuss this rule per se, it is intended to indicate that, by permitting, whether explicitly or implicitly, athletes to engage in activity while alcohol is still present in the blood, it demonstrates a violation of the duty of care mentioned above and places the coach at legal risk. More importantly, athletes who drink prior to the 48 hours leading up to a practice or game expose themselves to serious injury, which can be deleterious to long-term well-being. Many believe that starting in sports at a young age is not only a fun and positive use of time for young people, including children, but that it is also associated with psychological well-being, social development, and higher academic scores. Part of this positive development rests in the duty of care that coaches owe to their athletes. The duty of care expected is from a "reasonable, confident and careful coach acting in similar circumstances" (Grossman, 2009, p. 13).

Given the most recent, high profile, adverse events involving collegiate head coaches, there is increased concern regarding the risks that pose a threat to the safety and well-being of college athletes who agree to participate in episodic,

excessive drinking, and then attempt to participate in a sporting event. Clearly, the existing institutional and, perhaps in some cases, departmental policies fail to deal adequately with the problems associated with athlete alcohol consumption and additional measures are required to ensure the safety and protection of college athletes. This responsibility may, in whole or at least in part, rest with the head coach, whom the athletes may perceive as fostering an environment that implicitly encourages alcohol consumption. It is worth noting that, while this research does not specifically investigate institutional alcohol policies, it is unclear if the policies themselves fail to address this issue, as much as the lack of awareness and enforcement of these policies by coaches, or team staff, or both.

In an evaluation of chemical health education for high school athletic coaches, Corcoran and Feltz (1993) showed high school coaches need to be educated regarding “critical chemical information and methods for developing intervention skills so that they may adequately, and intelligently, and successfully discourage their [young] athletes from engaging in unhealthy behavior” (p. 299). The research question for the present study is very similar in nature to that of Corcoran and Feltz (1993): To what extent do collegiate head coaches’ knowledge of the signs and symptoms of alcohol use, and their skills to intervene, prevent them from actually doing so. One of the reasons behind the current culture of alcohol consumption may be in part because collegiate head coaches do not feel confident in their ability to intervene on behalf of an athlete who drinks. Therefore, this study seeks to establish a relationship between collegiate head coaches’ current knowledge and attitudes toward athlete alcohol consumption, and the current culture of drinking within the world of collegiate athletics. While the first part of this research question is answered by the current survey responses, the second part, that of the culture of drinking, may not be realized until after the implementation and evaluation of a newly developed intervention.

## **Methods**

### **Participants**

This study received Institutional Review Board approval on July 30, 2012. Recruitment began in August 2012 by way of an e-mail introduction to head coaches through the researcher’s professional contacts. In addition to this, a separate spreadsheet, identifying head coaches through a random internet selection of institution websites, provided additional recruitment avenues. One hundred eighty-nine (189) emails requesting participation were sent to head coaches based on this spreadsheet. These request for participation emails included an introduction to the survey, including a declaration of informed consent, and an active link to the survey. Additionally, the same active survey link was posted to a listserv containing 2,000 e-mail addresses. It is unknown if any of the listserv participants forwarded this link to others. Recruitment also took place through attendance at the NCAA APPLE, a conference dedicated to substance abuse prevention and health promotion for student athletes and athletics department administrators, in January 2013 at the University of Virginia. Once introduced to the study, attendees voluntarily signed up to receive

the same introductory e-mail, declaration of informed consent, and active survey link. The survey remained active until February 1, 2013.

The sample for this study consists of 62 collegiate (N = 62) head coaches who responded to the survey through networking at professional conferences and, as a convenience sample, through presence on two Pennsylvania college campuses (Temple University in Philadelphia, Pennsylvania, and West Chester University in West Chester, Pennsylvania). There were three criteria that respondents had to meet in order to be able to participate in this survey: The participant had to be over the age of 18, the participant had to hold the position of head coach at a college or university, and the institution had to be part of a Division of the NCAA.

Mean age of the respondents was 41.5 (SD = 10.515). The age range of respondents was 18-68. Forty-five respondents indicated their gender, with 53.3% male and 46.7% female. Forty-four respondents indicated their NCAA Division as the following: 45.5% Division I, 27.3% Division II, and 27.3% Division III. Of 43 respondents to the question of ethnicity, 100% indicated they were Caucasian. The sports represented as part of this study are itemized in Table 1. The number of respondents per sport, however, is greater than the survey's population (N=62) because some head coaches coach more than one sport.

Table 1  
*Sports Represented in this Study*

Sport	# of Respondents (N=62)	% of those Responding
Baseball	2	4.1%
Women's Basketball	4	8.2%
Men's Basketball	2	4.1%
Women's Cross Country	7	14.3%
Men's Cross Country	6	12.2%
Field Hockey	2	4.1%
Football	2	4.1%
Women's Golf	2	4.1%
Men's Golf	4	8.2%
Women's Gymnastics	2	4.1%
Women's Ice Hockey	1	2.0%
Women's Lacrosse	1	2.0%
Women's Rowing	1	2.0%
Men's Rowing	1	2.0%
Women's Soccer	2	4.1%
Softball	7	14.3%
Women's Tennis	4	8.2%
Men's Tennis	1	2.0%
Women's Track & Field Indoor	8	16.3%
Men's Track & Field Indoor	7	14.3%

Women's Volleyball	2	4.1%
Women's Water Polo	1	2.0%
Men's Wrestling	2	4.1%
Other	6	12.2%

## Instrumentation

A review of the literature yielded no existing measure for determining the knowledge of head coaches in recognizing the signs and symptoms of alcohol use, or self-efficacy, to intervene on behalf of athletes who drink. Utilized in this study was a newly developed survey instrument, which quantifies head coaches' knowledge and attitudes toward athletes who drink (Nolt, 2012). This 33-item survey measures the following: coaches' confidence and knowledge of the signs and symptoms of alcohol consumption by an athlete; alcohol's effect on athletic performance; past training on alcohol use as well as perceived effectiveness of the training; knowledge and enforcement of institutional and departmental alcohol use policies; and self-efficacy with respect to intervening on behalf of an athlete with an alcohol use problem. Items derived from the author's review of the literature on substance abuse education as well as professional experience. Twenty-five questions were single answer, multiple choice response questions, and eight questions asked respondents to elaborate on their answers to previous questions. This instrument is available upon request from the author. Colleagues who are knowledgeable in the subject area of head coaching and substance abuse education reviewed the instrument for logical validity with respect to the construct of coaches' self-efficacy to intervene on behalf of an athlete who drinks. Testing of logical validity also occurred through head coach and athletic trainer review, thereby confirming that the instrument would measure what it was purported to measure.

## Results

All 62 respondents did not answer all questions. Survey questions to the respondents probed if they felt confident in their ability to identify signs and symptoms of alcohol use among their student-athletes. Respondents (58.6%) indicated they are only *somewhat, or not at all, confident* that they can recognize the signs and symptoms of athlete alcohol consumption. Additionally, 19.5 % of respondents stated they feel *only somewhat confident or not at all confident*, that they have the ability to intervene beyond a referral to a professional or someone else on campus. Furthermore, 51.2% of 41 respondents indicated they are only *somewhat, if at all, familiar* with their own institution's policies regarding alcohol consumption. Thirty-nine percent of the 41 respondents further indicated that, even if they did confirm alcohol use by a student-athlete, they do not feel confident that they know what to say to help.

All of the respondents indicated that alcohol can affect athletic performance. The qualitative, elaborate, responses to the question of *how* alcohol can affect performance include: It is a depressant which slows down cognizant and physical abilities, affects one's ability to train at higher levels, decreases focus

and concentration, creates a lack of stability, decreases muscle, creates lack of motivation, fatigue and stamina, and takes athletes longer to recover from workouts, practices, and races. Forty-one coaches indicated that they *do not* speak to their athletes regularly about the consequences of alcohol consumption. Thirty-eight respondents indicated that they are *only somewhat confident or not at all confident* that their athletes would seek them out to discuss alcohol use if needed.

Of the 45 respondents who answered the question of whether or not they have received training on alcohol use at any time, 28.9% indicated they had received *no training at all*, 20% indicated that they had taken a course *while in college*, and 40% indicated that they had received training at their institution or through their department. When asked if this training was effective in raising their ability to recognize signs and symptoms of alcohol use by athletes, 15.8% indicated that their training *was not effective*. When added to the 28.9% of respondents who received no training at all, results showed that approximately 44.7 % of respondents might not be able to identify the signs and symptoms of athletes who drink.

Of the 41 respondents who answered the question about their team rules regarding alcohol consumption, 61% stated they have their own rules, and 39% indicated they do not. Of the 24 respondents who elaborated on their response on team rules, 13 (54%) indicated that they enforce a 24-48 hour rule. One respondent indicated that the team rule is that “there is no alcohol if wearing articles of clothing that identify you as a team athlete.” Respondents also indicated that rules regarding alcohol use are more strictly enforced during in season, than during off season (56.4%), and 41% indicated that the team rules regarding alcohol use are enforced equally in season and during the off season (2.6% indicated rules are more strictly enforced during the off season).

## **Discussion**

The current study uses a newly developed instrument (Nolt, 2012) to ascertain collegiate head coaches’ knowledge and attitudes toward their student-athletes’ alcohol consumption. This study sought to explore the self-efficacy of collegiate head coaches with respect to their ability to intervene on behalf of student-athletes who consume alcohol and, thereby, place themselves at a greater risk of an alcohol-related injury. Respondents to this survey did indicate that they do not feel confident in their ability to intervene, which is indicative of either a lack of skill to do so, or the confidence to intervene, or both. Respondents also indicate that they do not believe that athletes will seek them out, as their head coach, if they need to discuss their alcohol problems. If this is in fact true, then, as indicated in Boardley et al. (2008), when it comes to alcohol, athletes may perceive their head coaches as ineffective in intervening, based on technique or skill, and, therefore, are not confident that their coaches can help. It is also possible that athletes may perceive their coaches as being put-upon when discussing this topic, or not interested in pursuing or enforcing rules regarding their drinking as long as they can perform effectively within their sport, as suggested by Potthoff (1996).

Some head coaches did indicate that they enforce an implied, as in not sanctioned, unwritten rule called the 48-hour rule. This means that if athletes are going to drink, they should refrain from doing so within the 48 hours immediately prior to a practice, workout, or game, lest it affect their performance and, thereby, their outcomes. The suggestion is that, should performance be lacking, enforcement begins. Enforcement, according to respondents, may be sanctions, such as sitting out games, no dressing, warnings, and possible suspensions. The overall response to a question regarding enforcement of rules was skipped by half of the respondents (32 skipped this question), and among the respondents who did elaborate, they did so without any commitment to a specific enforcement modality. The answers were general in nature, and mostly indicated that it depended on the impact of the violation, whether it took place in or out of season, and, sometimes, the coach relied upon trust. In many cases, these responses did suggest that there were policies set by Athletic Directors, but did not seem to provide specifics as to enforcement.

With respect to enforcement of rules during the in-season versus the off-season, respondents were nearly equal in their enforcement of rules for alcohol consumption, where the majority still enforced rules more strictly during the season. According to Martens, Dams-O'Connor, and Duffy-Paiement (2006), athletes did positively alter their drinking behaviors during the competitive season; however, their drinking behaviors during the off-season were such that the consequences could still result in injury, whether physical or not, that could negatively affect athletic performance. These might include "serious academic, social, and health related problems as a result of such drinking" (p. 508). Martens et al. (2006) further suggest that "off-season increases in alcohol use would almost certainly negatively impact an athlete's training and subsequent athletic performance" (p. 508). Regardless of the true nature of this piece of the athlete alcohol consumption puzzle, head coaches (as do all coaches) should uphold a duty of care toward their student-athletes. By failing to establish concrete, vocalized (and often), boundaries regarding alcohol consumption, coaches leave themselves and, potentially, their institutions open to legal action, and their athletes open to a potentially serious injury.

Duty of care is a legal obligation on the part of a coach to ensure that athletes are completely ready to participate in a practice, workout, or game through progressive instruction. If part of the program fails to instruct on alcohol consumption and its related consequences, whether in season or not, could the coach then be partly liable for injuries sustained by an athlete? According to Grossman (2009), a similar question came up in the courtrooms in the United Kingdom on three separate occasions. In two of these cases, the courts ruled against the coach(es); and in the other, there were contributory circumstances, but the coach was still found partly negligent. Palamer (2011) suggests that what makes a claim of negligence successful is that there must be "a duty of care owed; a breach of the duty of care, and foreseeability and causation of injury" (p. 8).

Underpinning this legal risk, however, are the leadership characteristics that are indicative of a good and effective coach, such as those described by Park and Lyle (2013), which include serving as positive role models, demonstrating credibility, responsibility, and a true sense of caring for their athletes' well-being,

as much as for their sport and related outcomes. Head coaches who participated in the present study indicated that they are lacking in the skills and confidence to address alcohol consumption by their student-athletes. They also indicated that they are unaware of, and therefore cannot enforce their institution's alcohol policies and can only refer athletes out of their control to others for help. This then establishes a need to provide an intervention for head coaches that will increase skill and confidence to intervene on behalf of athletes who drink and, thereby, increase the likelihood that head coaches can demonstrate their care and concern for their athletes with regard to alcohol consumption.

To this end, a newly developed intervention which empowers collegiate head coaches to identify signs and symptoms of alcohol consumption by athletes; instructs them on the use of motivational interviewing techniques to conduct brief interventions for athletes; and heightens awareness of institutional policies on alcohol consumption to affect change in the culture of enforcement of established policies (Nolt, 2013) has been implemented. Future research should include effectiveness and outcome related study.

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### Discussion Questions

1. How critical an issue is alcohol consumption for student-athletes? Explore and discuss.
2. How knowledgeable should coaches' be about alcohol and the effects of alcohol on performance? Explore and discuss.
3. What is "duty of care" and why is it important for coaches' and student-athletes? Explore and discuss.

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## APPENDIX B

### SURVEY FOR INITIAL STUDY – NOLT, SACHS, & BRENNER, 2013

#### Coaches' Knowledge and Attitudes About Student-Athletes' Alcohol

##### Coaches' Knowledge and Attitudes About Student Athletes' Alcohol Consumption...

Please allow me to introduce myself. I am a doctoral student and Teaching Assistant in the Department of Kinesiology at Temple University and have been an Adjunct Faculty member at West Chester University for the last 8 years in the College of Health Sciences. My doctoral research study seeks to clarify knowledge, attitudes, and beliefs of collegiate head coaches with respect to alcohol consumption by their athletes. I respectfully request that you consider participating in this brief survey to assist in this research study.

You must be 18 years of age or older and a head coach of a collegiate team in any sport to participate in this survey. This survey should take no longer than 10-15 minutes to complete, and should present no harm to you. Completing this survey is voluntary - if you wish to stop responding at any time, please feel free to do so. Please note that any information sent over the Internet is confidential only to the extent the Internet is secure. This is an anonymous survey. No personal identifiable data are requested nor will be collected. Please do not provide any contact information.

If you have any questions about this research study, please contact Kate Nolt at [Kate.Nolt@temple.edu](mailto:Kate.Nolt@temple.edu) or Dr. Michael Sachs at [msachs@temple.edu](mailto:msachs@temple.edu) or via phone at 215-204-8718.

If you have any questions about your rights as a research subject, you may contact the Institutional Review Board Coordinator at (215) 707-3390. The IRB Coordinator may also be reached by email: [IRB@temple.edu](mailto:IRB@temple.edu) or regular mail:  
Institutional Review Board Coordinator  
Temple University Research Administration  
Student Faculty Conference Center  
3340 North Board Street – Suite 304  
Philadelphia, PA 19140

Thank you in advance for your time and consideration in completing this survey.

Sincerely,

Kate L. Nolt, MPH  
Doctoral Student/TA  
Exercise and Sport Psychology  
Department of Kinesiology  
Temple University  
[Kate.Nolt@Temple.edu](mailto:Kate.Nolt@Temple.edu)

## Coaches' Knowledge and Attitudes About Student-Athletes' Alcohol

**\*1. Are you a head coach of an intercollegiate sport at an NCAA Division I, II, or III institution?**

Yes

No

**\*2. Please indicate below the sport(s) for which you are Head Coach. Check all that apply.**

Baseball

Women's Basketball

Men's Basketball

Women's Bowling

Men's Bowling

Women's Cross Country

Men's Cross Country

Women's Fencing

Men's Fencing

Field Hockey

Football

Women's Golf

Men's Golf

Women's Gymnastics

Men's Gymnastics

Women's Ice Hockey

Men's Ice Hockey

Women's Lacrosse

Men's Lacrosse

Women's Rifle

Men's Rifle

Women's Rowing

Men's Rowing

Women's Skiing

Men's Skiing

Women's Soccer

Men's Soccer

Softball

Women's Swimming & Diving

Men's Swimming & Diving

Women's Tennis

Men's Tennis

Women's Track & Field (Indoor)

Men's Track & Field (Indoor)

Women's Track & Field (Outdoor)

Men's Track & Field (Outdoor)

Women's Volleyball

Men's Volleyball

Women's Water Polo

Men's Water Polo

Women's Wrestling

Men's Wrestling

Other (please specify)

## Coaches' Knowledge and Attitudes About Student-Athletes' Alcohol

### 3. In which NCAA Division are you a Head Coach?

Division I

Division II

Division III

### 4. Are you male or female?

Male

Female

## Coaches' Knowledge and Attitudes About Student-Athletes' Alcohol

### 5. How old are you?

18.

19.

20.

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80.

## Coaches' Knowledge and Attitudes About Student-Athletes' Alcohol

49

80+

### 6. What category would include your ethnicity?

- African American
- Asian American
- Caucasian
- Hispanic/Latino
- Native American
- Other

### 7. If you are a Head Coach for one sport (for example, Men's Tennis is one sport), please skip to question 9. If you are a Head Coach for more than one sport (such as Men's Tennis and Women's Tennis), do you treat these sports differently with respect to your approach to alcohol use and abuse by your student-athletes?

- Yes
- No

### 8. If you answered Yes to question 7, please select the sport for which you are Head Coach and have the most significant issues with respect to alcohol use and abuse by your student-athletes. Please answer the rest of this survey with that sport in mind (if you answered No to question 7 please skip to question 9). Please indicate which sport you have selected in the comment box below!

### 9. What training, if any, have you received on alcohol use and abuse by student-athletes. Please check all that apply.

- None (I have received no training)
- Online Course
- Course while in college
- Conference workshop
- University (or [open up](#)) training
- Athletic department training
- Other

## Coaches' Knowledge and Attitudes About Student-Athletes' Alcohol

**10. If you responded "Other" in question 9, please indicate below what kind of training you received!**

**11. If you received any training, did you find this training to be effective in raising your skill level with respect to recognizing signs and symptoms of alcohol use or abuse by student-athletes?**

Yes

No

N/A

**12. Do you feel confident in your ability to recognize the signs and symptoms of alcohol use or abuse by student-athletes?**

Yes

No

Somewhat

**13. Do you feel confident in your ability to intervene should you suspect or confirm alcohol use or abuse by a student-athlete?**

Yes

No

Somewhat

**14. Do you feel confident in your ability to make a referral for a student-athlete whom you suspect or confirm is engaged in alcohol use or abuse?**

Yes

No

Somewhat

**15. Are you aware of any alcohol use or abuse by student-athletes on your team? If so, please elaborate below.**

## Coaches' Knowledge and Attitudes About Student-Athletes' Alcohol

**16. If a student-athlete expressed difficulties as a result of alcohol consumption, do you believe you would know what to say to him or her to help?**

- Yes  
 No  
 Somewhat

**17. Do you talk regularly with your team about the consequences of alcohol consumption?**

- Yes  
 No

**18. If the answer to question 17 is yes, please indicate how often you talk with your team!**

**19. Do you believe that alcohol can affect athletic performance?**

- Yes  
 No

**20. If the answer to question 19 is yes, please elaborate on how alcohol can affect athletic performance!**

**21. How familiar are you with your institution's policies on alcohol consumption by student-athletes?**

- Very Familiar  
 Somewhat Familiar  
 Not At All Familiar

**22. How familiar are you with your athletic department's policies on alcohol consumption by student-athletes?**

- Very Familiar  
 Somewhat Familiar  
 Not At All Familiar

## Coaches' Knowledge and Attitudes About Student-Athletes' Alcohol

**23. In comparing your institution's policies on alcohol consumption by student-athletes, your athletic department's policies on alcohol consumption by student-athletes, and your (as coach) policies on alcohol consumption by student-athletes!**

- The three are the same
- The athletic department's policies are stricter than the institution's
- My policies are stricter than the other two

**24. If your policies are stricter (as indicated in question 23), what specific policies do you have that are stricter? Please elaborate below.**

**25. In your role as coach, what do you do to enforce whichever alcohol policies you indicated are strictest? Please elaborate below.**

**26. Please indicate the level of enforcement of these policies for the off-season vs. for during the season.**

- A. Enforced more strictly in season
- B. Enforced more strictly during the off-season
- C. Enforced equally in season and during the off-season

**27. If you answered A to question 26, please elaborate on which policies, specifically, are more strictly enforced during the season.**

**28. If you answered B to question 26, please elaborate on which policies, specifically, are more strictly enforced during the off-season. If you answered C to question 26 above, please skip to question 29.**

**29. Does your team have its own rules about alcohol consumption?**

- Yes
- No

## Coaches' Knowledge and Attitudes About Student-Athletes' Alcohol

**30. If you answered yes to the previous question, please specify what your team's rules are below.**

**31. If you answered yes to question 29, who decided on the team rules?**

- Coach
- Team
- Coach and Team together

## Coaches' Knowledge and Attitudes About Student-Athletes' Alcohol

**32. How confident are you that the student-athletes in your care would come to you to discuss alcohol use or abuse by student-athletes themselves?**

- Very confident
- Somewhat confident
- Not at all confident

**33. Whose responsibility is it to educate athletes on alcohol consumption? Check all that apply.**

- Counseling Center on Campus
- Athletic Department
- Coaching Staff including myself
- Education/Awareness Team on Campus
- Health Class
- Parent(s)
- Athletic Training Staff
- Community
- University/Institution
- Campus Public Safety
- Other Teammates

Other (please specify)

**34. Thanks for your help with this survey! If you have any questions please contact Kate Nolt at [kate.nolt@temple.edu](mailto:kate.nolt@temple.edu) If you have any comments, please feel free to enter them below!**

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APPENDIX C

FELTZ SURVEY 1993

CHEMICAL HEALTH INTERVENTION EFFICACY QUESTIONNAIRE ©  
(Corcoran & Feltz, 1993)

INSTRUCTIONS: For each of the following items, circle the number that best represents your confidence.

How confident are you...

	Not at all Confident							Extremely Confident		
	0	1	2	3	4	5	6	7	8	9
1. in your <b>knowledge of chemicals</b> used by athletes today?	0	1	2	3	4	5	6	7	8	9
2. regarding your <b>ability to identify uncharacteristic behaviors</b> exhibited by an athlete, that may indicate a chemical abuse problem?	0	1	2	3	4	5	6	7	8	9
3. regarding your <b>ability to clearly state</b> what you expect from your athletes in reference to their chemical health?	0	1	2	3	4	5	6	7	8	9
4. regarding your <b>ability to successfully intervene</b> with an athlete experiencing chemical-related problems?	0	1	2	3	4	5	6	7	8	9
5. regarding your <b>ability to educate your team</b> about specific physiological and psychological effects that certain chemicals can produce?	0	1	2	3	4	5	6	7	8	9
6. regarding your <b>ability to lead a discussion</b> about pressures that are unique to athletics and that could lead an athlete to use/abuse a chemical(s)?	0	1	2	3	4	5	6	7	8	9
7. regarding your <b>ability to communicate clear messages</b> about team chemical health expectations?	0	1	2	3	4	5	6	7	8	9
8. regarding your <b>ability to confront unacceptable behavior</b> that is exhibited on your team?	0	1	2	3	4	5	6	7	8	9
9. regarding your <b>ability to seek assistance</b> in the development of a Chemical Health Education and Coaching program for your athletes?	0	1	2	3	4	5	6	7	8	9

APPENDIX D  
FELTZ PERMISSION

**Kate L. Nolt**

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**From:** Deb Feltz [REDACTED]  
**Sent:** Wednesday, March 13, 2013 1:49 PM  
**To:** Kate L. Nolt  
**Subject:** Re: Doctoral Study, Temple University, VERY similar to your study  
**Attachments:** ECSS abstract.docx; CHEMICAL HEALTH EFFICACY QUESTIONNAIRE.pdf  
**Importance:** High

Kate,  
Here is the Chemical Health Efficacy Questionnaire. Also, attached is the abstract from our WADA grant. I don't have that final questionnaire in front of me. But will send it as soon as I get it from the Brock folks.

Deborah L. Feltz, Ph.D.

[REDACTED]

APPENDIX E

NOLT PRETEST POSTTEST SURVEY

**COLLEGIATE HEAD COACH ALCOHOL INTERVENTION EFFICACY QUESTIONNAIRE**

© **Kate L. Nolt (2013)** \*Adapted with permission from the Chemical Health Intervention Questionnaire by Corcoran & Feltz, 1993. Rev. 8.16.13

INSTRUCTIONS: For each of the following items, circle the number that best represents your confidence.

**How confident are you...**

Not at all  
Extremely  
Confident  
Confident

1. in your **knowledge of alcohol** use by athletes today?  
0 1 2 3 4 5 6 7 8 9
2. regarding your **ability to identify uncharacteristic behaviors** exhibited by an athlete, that may indicate an alcohol use problem?  
0 1 2 3 4 5 6 7 8 9
3. regarding your **ability to clearly state** what you expect from your athletes in reference to their alcohol use?  
0 1 2 3 4 5 6 7 8 9
4. regarding your **ability to successfully intervene** with an athlete experiencing alcohol-related problems?  
0 1 2 3 4 5 6 7 8 9
5. regarding your **ability to educate your team** about specific physiological and psychological effects that alcohol can produce?  
0 1 2 3 4 5 6 7 8 9
6. regarding your **ability to conduct a discussion** about pressures that are unique to athletics and that could lead an athlete to use/abuse alcohol?  
0 1 2 3 4 5 6 7 8 9
7. regarding your **ability to communicate clear messages** about team alcohol use expectations?  
0 1 2 3 4 5 6 7 8 9
8. regarding your **ability to confront unacceptable behavior** that is exhibited by your team specific to alcohol use?  
0 1 2 3 4 5 6 7 8 9

- |  | Not at all<br>Confident |   |   |   |   |   |   |   |   |   | Extremely<br>Confident |
|--|-------------------------|---|---|---|---|---|---|---|---|---|------------------------|
| 9. regarding your <b>ability to seek assistance</b> in the development of alcohol use education and coaching programs for your athletes?               | 0                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |                        |
| 10. regarding your <b>ability to conduct a brief intervention</b> about alcohol use using motivational interviewing technique?                         | 0                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |                        |
| 11. regarding your <b>ability to recognize signs and symptoms of alcohol use</b> by athletes?  | 0                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |                        |
| 12. in your <b>knowledge of your Institution's policies</b> on alcohol use?  | 0                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |                        |
| 13. regarding your <b>ability to confront unacceptable</b> behavior that is exhibited on your team specific to alcohol use <u>using MI technique</u> ? | 0                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |                        |
| 14. regarding your ability to <b>express empathy</b> toward an athlete who drinks?   | 0                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |                        |
| 15. regarding your ability to <b>develop discrepancy</b> between the athlete's goals and current behavior?   | 0                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |                        |
| 16. regarding your ability to use <b>affirmations to support positive goals and values</b> of an athlete?  | 0                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |                        |
| 17. regarding your ability to <b>ask about the good things and bad things</b> (benefits and costs) of engaging in alcohol consumption?                 | 0                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |                        |
| 18. regarding your ability to engage in <b>reflective listening</b> (avoiding directing, warning, threatening, persuading the athlete to change)?      | 0                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |                        |
| 19. regarding your ability to describe what motivational interviewing is, and how it would be used with a student-athlete?                             | 0                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |                        |
| 20. your belief that a brief intervention by you as a head coach would benefit a student-athlete who drinks?   | 0                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |                        |

**Demographics:** Please indicate the appropriate answer below.

Male or Female (circle one)      Please indicate your age: \_\_\_\_\_

Ethnicity: Caucasian    African-American    Latino    Asian    Other (circle one)

Sport: Please identify your primary sport affiliation (i.e., M Football, W Swim) \_\_\_\_\_

Please indicate your current position with your team: Head Coach    Assist Coach    Athletic Trainer    Other (circle one)

APPENDIX F  
IRB APPROVAL



Unanticipated Problems Committee

Office for Human Subjects Protections    Student Faculty Conference Center  
Institutional Review Board    3340 N Broad Street - Suite 304  
Medical Intervention Committees A1 & A2 Philadelphia, Pennsylvania 19140  
Social and Behavioral Committee B Phone: (215) 707-3390  
Fax: (215) 707-9100 e-mail: [irb@temple.edu](mailto:irb@temple.edu)

**Certification of Approval for a Project Involving Human Subjects**

Protocol Number: 21645  
PI: SACHS, MICHAEL  
Review Type: EXPEDITED  
Approved On: 02-Oct-2013  
Approved From: 02-Oct-2013  
Approved To: 01-Oct-2014  
Committee: B BEHAVIORAL AND SOCIAL SCIENCES  
School/College: HEALTH PROFESSIONS (0900)  
Department: CHP:KINESIOLOGY (09070)  
Sponsor: No External Sponsor  
Project Title: The Effects of Collegiate Head Coaches Knowledge and Attitudes Towards Alcohol Consumption by Student-Athletes and an Interventional Study

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The IRB approved the protocol 21645.

If the study was approved under expedited or full board review, the approval period can be found above. Otherwise, the study was deemed exempt and does not have an IRB approval period.

Before an approval period ends, you must submit a "[Continuing Review Progress Report](#)" to request continuing approval. Please submit the form at least 60 days before the approval end date to ensure that the renewal is reviewed and approved and the study can continue.

Finally, in conducting this research, you are obligated to submit modification requests for all changes to any study; reportable new information using the Reportable New Information form; and renewal and closure forms. For the complete list of investigator responsibilities, please see the Policies and Procedures, the Investigator Manual, and other requirements found on the Temple University IRB website: <http://www.temple.edu/research/reqaffairs/irb/index.html>

Please contact the IRB at (215) 707-3390 if you have any questions.



## An Example of an MI “Session”

Begin with a “leveling” statement or gesture (greet the athlete with warmth and perhaps a handshake). Remember that there is a power differential between a coach and an athlete and this can mean the difference between overcoming ambivalence and resistance, and evoking meaningful conversation and talk of behavior change.

### 1. Set the Agenda – Find the Target Behavior (e.g., using, smoking, exercising)

Clarify the agenda around a target behavior about which there is ambivalence. Try a series of special questions to help sort things out.

### 2. Ask about the positive (good things) aspects of the target behavior. This is often an engaging surprise. However, it will only work if you are genuinely interested.

- What are some of the good things about \_\_\_\_\_?
- People usually \_\_\_\_\_ because there is something that has benefited them in some way. How has \_\_\_\_\_ benefited you?
- What do you like about the effects of \_\_\_\_\_?

➤ Summarize the positives

### 3. Ask about the negative (less good things) aspects of the target behavior:

- Can you tell me about the downside?
- What are some aspects you are not so happy about?
- What are some of the things you would not miss?

➤ Summarize the negatives

### 4. Explore life goals and values.

These goals will be the pivotal point against which costs and benefits are weighed.

- What sorts of things are important to you?
- What sort of person would you like to be?
- If things worked out in the best possible way for you, what would you be doing a year from now?

➤ Use affirmations to support “positive” goals and values.

## 5. Ask for a decision.

Restate their dilemma or ambivalence then ask for a decision.

- You were saying that you were trying to decide whether to continue or cut down...
- After this discussion, are you clearer about what you would like to do?
- So have you made a decision?

## 6. Goal setting – Use SMART goals

**(Specific, Meaningful, Assessable, Realistic, Timed)**

- What will be your next step?
- What will you do in the next one or two days?
- Have you ever done any of these things before to achieve this?
- Who will be helping and supporting you?
- On a scale of 1 to 10 what are the chances that you will do your next step? (anything under 7 and their goal may need to be more achievable)

### ➤ **If no decision or decision is to continue the behavior.**

- If no decision, empathize with difficulty of ambivalence.
- Ask if there is something else which would help them make a decision?
- Ask if they have a plan to manage not making a decision?
- Ask if they are interested in reducing some of the problems while they are making a decision?
- If decision is to continue the behavior, go back to explore the ambivalence.

From the work of WR Miller & S Rollnick, downloaded from [www.motivationinterview.org](http://www.motivationinterview.org)

## **Strategies for Assessing Importance and Confidence**

### ***Importance***

How do you feel **at this moment** about [behavior change]? How **important** is it to you personally to [change]? If 0 was 'not important' and 10 was 'very important', what number would you give yourself?

### ***Confidence***

If you decided right now to [change], how confident do you feel about succeeding with this? If 0 was 'not confident' and 10 was 'very confident', what number would you give yourself?

### ***Where to go next?***

If the importance rating is low, focus on this

Focus on the lower number, particularly if there is a discrepancy between the ratings

If ratings are roughly equal, start with importance

If both are low, it may not be the right time to focus on behavior change. Share this observation with the athlete and try to understand exactly how he or she is feeling. Consider that some other issue might be more relevant.

## **Useful Questions for Exploring Importance and Building Confidence**

### ***Exploring Importance***

**What would have to happen for it to become much more important for you to change?** (develop discrepancy)

- What would have to happen before you seriously considered changing?
- Why have you given yourself such a high score on importance?
- What would need to happen for your importance score to move up from x to y?
- What stops you moving up from x to y?

**What are the good things about ...[current behavior]?** (develop discrepancy)

What are some of the things you don't like about [current behavior]?

What concerns do you have about [current behavior]?

**If you were to change, what would it be like?** (evoking change talk)

### ***Exploring Confidence***

- What would make you more confident about making these changes?
- Why have you given yourself such a high score on confidence?
- How could you move up higher, so your score goes from x to y?
- How can I help you succeed?
- Is there anything you found helpful in any previous attempts to change?
- What have you learned from the way things went wrong last time you tried?
- If you were to decide to change, what might your options be? Are there any ways you know about that have worked for other people?
- What are some of the practical things you need to do to achieve this goal? Do any of them sound achievable?
- Is there anything you can think of that would help you feel more confident?

## Motivational Interviewing: Preparing People to Change Health Behaviors TIPS SHEET

### Five General Principles of Motivational Interviewing:

1. Express empathy
2. Develop discrepancy
3. Avoid argument
4. Roll with resistance
5. Support self-efficacy

### Responses that are NOT Reflective Listening:

1. Ordering, directing, or commanding
2. Warning or threatening
3. Giving advice, making suggestions, or providing solutions
4. Persuading with logic, arguing, or lecturing
5. Moralizing, preaching, or telling clients what they *should* do
6. Disagreeing, judging, criticizing, or blaming
7. Agreeing, approving, or praising
8. Shaming, ridiculing, or labeling
9. Interpreting or analyzing
10. Reassuring, sympathizing, or consoling
11. Questioning or probing
12. Withdrawing, distracting, humoring, or changing the subject

### Assumptions to Avoid:

1. This person OUGHT to change
2. This person WANTS to change
3. This person's health is the prime motivating factor for him/her
4. If he or she does not decide to change, the consultation has failed
5. Individuals are either motivated to change, or they're not
6. Now is the right time to consider change
7. A tough approach is always best
8. I'm the expert - He she must follow my advice
9. A negotiation approach is always best

### Signs of Resistance:

arguing	non-answer	pessimism
challenging	no response	reluctance
discounting	sidetracking	unwilling to change
hostility	denying	
interrupting	blaming	
talking over	disagreeing	
cutting off	excusing	
ignoring	claiming impunity	
inattention	minimizing	

### **Strategies for Handling Resistance:**

1. Simple Reflection: simple acknowledgement of the client's disagreement, emotion, or perception
2. Double-sided Reflection: acknowledge what the client has said and add to it the other side of the client's ambivalence
3. Clarification: verify your understanding matches the client's perspective
4. Shifting Focus: shift the client's attention away from what seems to be a stumbling block
5. Emphasizing Personal Choice and Control: assures the person that in the end it is the client who determines what happens

### **Specific MI Strategies:**

1. Ask open-ended questions
2. Listen reflectively
3. Affirm
4. Summarize
5. Elicit self-motivational statements

### **Negotiating a Plan:**

1. Set Specific (short-term) Goals
2. Consider Your Options
  - a. Discuss with the individual what the different approaches are to making changes
  - b. Try to match the individual to the optimal behavior change strategy
  - c. Recognize that the person may not choose the "right" strategy
  - d. Prepare the individual for this possibility
3. Establish a Plan
  - a. Goals/Strategies/Tactics
  - b. Summarize the plan with the patient
  - c. Make sure to assess if the person is now ready to commit to the plan

### **Specific MI Tools:**

1. List of Pros and Cons (Benefits/Costs) for and against behavior change
2. Assess Importance and Confidence – see above
3. Looking Back – client reflects on effective strategies used with past successes; have them think back to a time in life when things were going well; describe this and what has changed now
4. Looking Forward – have athletes think about their hopes for the future if they make this change; how would they like things to be different; what are realistic options now what could you do now; what are the best results you could imagine if you make this change
5. Exploring Goals – assess match between client’s current behavior and future goals; explore how realistic goals are (trying to explore and develop discrepancies between current behavior and client’s goals for the future)

## Workshop Exercises

3 people to a group: 1 – coach 1- athlete 1- participant observer (make MI specific notes of what was observed)

Activity #1: Role-play the following open ended statement

“Tell me about your typical day.”

Activity # 2: Role – play the following:

“On days when some people drink, some people drink 1 beer, and others drink 24 beers. What is your drinking like?”

MI is a technique that can be used in everyday life!

Practice, practice, practice these skills on family, friends & co-workers.

Additional MI Resources:

Books:

**Building Motivational Interviewing Skills: A Practitioner Workbook** David B. Rosengren (2009)  
Guilford Press

**Motivational Interviewing in Health Care**

**Helping Patients Change Behavior** (2007). [Stephen Rollnick](#), [William R. Miller](#), and Christopher  
C. Butler. Guilford Press

**Motivational Interviewing** (3<sup>rd</sup> Edition)

**Helping People Change** (2012). [William R. Miller](#) and [Stephen Rollnick](#). Guilford Press

Websites:

[www.motivationalinterview.org](http://www.motivationalinterview.org)

<http://www.motivationalinterviewing.org/>

## APPENDIX H

### INFORMED CONSENT

#### *Informed Consent to Participate*

*Title of the research study:* The Effects of Collegiate Head Coaches' Knowledge and Attitudes Towards Alcohol Consumption by Student-Athletes and an Interventional Study

This study involves research. The purpose of the research is to provide training to address the issue of collegiate head coaches' lack of confidence in their knowledge about alcohol use among athletes. Further, their attitudes, as indicated in a survey conducted in 2012 by this author (Nolt, 2012), are that referral to other resources will address this issue instead of their own direct intervention, and that there is an absence of confidence in a head coaches' ability to intervene even if they possessed the knowledge.

To that end an interventional study is being proposed whose purpose is to increase head coaches' knowledge of the signs and symptoms of alcohol use by athletes (e.g., slower reaction time, fatigue, loss of coordination), and to train the coaches on the use of the motivational interviewing (MI) technique. The hypothesis is that upon completion of participation in this training, head coaches would gain the skills needed to increase their confidence, as well as ability, to intervene with an athlete who drinks. In the absence of this interventional study, the current culture of excessive drinking by student-athletes is likely to continue.

#### *Research hypotheses*

This proposed training shall:

1. Increase confidence in participant's knowledge of the signs and symptoms of alcohol use by an athlete and how this use can affect sport performance using a slide presentation created by this author and using current research specific to this subject.
2. Establish the direct relationship between alcohol use and its effect on sport performance through progressive instruction using a slide presentation created by this author and using current research specific to this subject.
3. Increase confidence in participant's ability to conduct a brief intervention, using the motivational interviewing technique as measured through the results of the pretest and posttest.

#### *What you should know about a research study:*

- Someone will explain this research study to you.
- You volunteer to be in a research study.
- Whether you take part is up to you.

- You can choose not to take part in the research study.
- You can agree to take part now and later change your mind.
- Whatever you decide, it will not be held against you.
- Feel free to ask all the questions you want before and after you decide.
- By signing this consent form, you are not waiving any of the legal rights that you otherwise would have as a participant in a research study.

Subject Initials: \_\_\_\_\_  
 Date: \_\_\_\_\_

Template Revision: March 6, 2013

The *estimated* duration of your study participation is two hours.

The study procedures consist of implementing this training for head coaches including the following:

1. After successfully registering for this interventional training, participants who attend the training will be asked to give informed consent to participate in this interventional study, their anonymous answers to the pretest and posttest will be reported in aggregate as part of this dissertation. The pretest will be completed by participant head coaches. (5-8 minutes)
2. Once the pretest has been completed, the participants will view a video clip which will illustrate the incorrect way to conduct a brief intervention (displays of directing, judgmental, and lack of listening are demonstrated). (5 minutes) (please see attached pretest/posttest)
3. At the end of this video clip, another video clip will be shown to participants. This clip will show a brief intervention using motivational interviewing (MI) technique in a medical setting. This clip will demystify MI as a technique that is possible to learn, can be used in everyday encounters, and can be used with practice with athletes who drink (5 minutes)
4. The slide presentation of study results which informed this intervention will be shown (Nolt, 2012). Included in this part of the training will be substance abuse education information obtained during various studies which relate to the signs and symptoms of alcohol use, alcohol's effect on sport performance, and the consequences of alcohol consumption to athletes outside of sport performance. (10 minutes) (please see attached presentation .pdf)
5. Instruction of all the items and skills as set forth in the pretest and posttest will then take place. After each skill is introduced, an interactive activity will accompany the educational portion to reinforce and practice the individual skill. Participants will have time to practice through role playing, interactive games, and questions and answers to ensure an acceptable comfort level with the practiced skill before moving to the next skill. (60 minutes)

6. Once the new skills have been reviewed and practiced, a video (same as in the beginning) will be viewed by participants who will be asked to use a checklist of the skills learned to identify the number of times the MI facilitator in the video used each of the skills learned in the training. This will serve to reinforce awareness of the presence of each of these skills in an MI session. (10 minutes)
7. A review of the handout “An Example of an MI Session” will heighten further participant awareness to the components of a brief intervention using MI. (10 minutes)
8. Wrap up, review, questions and answers, posttest (10 minutes)
9. Discussion for volunteers to participate in an outcome evaluation to measure effectiveness of this training (5 minutes)
10. Training completed.

The reasonably foreseeable risks or discomforts are none.

The benefit you will obtain from the research is knowing that you have contributed to the understanding of this topic and participants will gain confidence and skill to intervene with an athlete who engages in risky drinking behaviors where currently they do not have the ability to help. Athletes then benefit from the intervention by their Head Coach. The athletic department, and thereby the institution, may benefit from more responsible drinking behaviors by athletes.

Please contact the research team with questions, concerns, or complaints about the research and any research-related injuries by calling Kate Nolt at 610-656-1918 or e-mailing [Kate.Nolt@temple.edu](mailto:Kate.Nolt@temple.edu) or calling Dr. Michael Sachs at 215-204-8718 or e-mailing [msachs@temple.edu](mailto:msachs@temple.edu).

This research has been reviewed and approved by the Temple University Institutional Review Board.

Please contact them at (215) 707-3390 or e-mail them at: [irb@temple.edu](mailto:irb@temple.edu) for any of the following: questions, concerns, or complaints about the research; questions about your rights; to obtain information; or to offer input.

**Confidentiality:** Efforts will be made to limit the disclosure of your personal information, including research study records, to people who have a need to review this information. However, the study team cannot promise complete secrecy. For example, although the study team has put in safeguards to protect your information, there is always a potential risk of loss of confidentiality. There are several organizations that may inspect and copy your information to make sure that the study team is following the rules and regulations regarding research and the protection of human subjects. These organizations include the IRB, Temple University, its affiliates and agents, Temple University Health System, Inc., its affiliates and agents, the study sponsor and its agents, and the Office for Human Research Protections.

**Signature Block for Capable Adult** Your signature documents your permission to take part in this research.

**DO NOT SIGN THIS FORM AFTER THIS DATE** 

October 8<sup>th</sup>, 2013

\_\_\_\_\_  
Signature of subject

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed name of subject

\_\_\_\_\_  
Signature of person obtaining consent

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed name of person obtaining consent

APPENDIX I  
SLIDE PRESENTATION

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Slide 1

A Brief Intervention for Head Coaches: Using Motivational Interviewing for alcohol using athletes

Kate L. Nolt, PhD (ABD), MPH  
Exercise & Sport Psychology  
Department of Kinesiology  
Temple University  
Philadelphia, PA

Doctoral Committee: Michael Sachs, PhD, Lois Butcher, PhD & Jim Brenner, PhD

Slide 2

- <http://www.youtube.com/watch?v=Ow0lr63y4Mw>- Bob Newhart
- <http://www.youtube.com/watch?v=SvqjTOnpSM>

Slide 3


## 5 Principles of MI

1. Empathy
2. Developing discrepancy
3. Avoiding Argument
4. Rolling with resistance
5. Self-Efficacy of the athlete


Slide 4

## Characteristics of an Effective Coach

- Being adept at teaching values, character, morals, and life skills in addition to the skills to perform in their chosen sport (Walinga, 2012)
- Emergent characteristics of successful coaches include eight dimensions, and *attitude and philosophy* is among them
- In this context, attitude and philosophy entail a concern for athletes, role modeling, credibility, and responsibility, in addition to a love of sport
- To some degree, concern for athletes also includes management of athletes' private lives (Park & Lyle, 2013)



Slide 5



- 58.6% of Head Coaches were only *somewhat, or not at all, confident* in their ability to recognize the signs and symptoms of alcohol consumption
- 19.5 % were *only somewhat confident, or not at all confident, in their* ability to intervene beyond a referral to a professional or someone else on campus
- 51.2% were only *somewhat, if at all, familiar* with their own institution's policies regarding alcohol consumption (and therefore probably not enforced)
- 39% indicated that even if they did confirm alcohol use by a student-athlete, they do not feel confident that they would know what to say to help
- 40% indicated that whatever training they have had to date was only somewhat effective or not effective at all


(Nolt, 2013)

Slide 6

## No Question ALCOHOL is the Most Widely 'Used' Drug (NCAA, 2012)

Marijuana = 22.6%  
Amphetamines = 3.7%  
Ephedrine = >1%  
Cocaine = 2%  
Anabolic steroids = 0.4%  
Narcotics = 3.3%

**ALCOHOL = 83%**




<http://www.ncaapublications.com/productdownloads/SAHS09.pdf>

Slide 7


## Problems: Athletic Injury

- Athletes who consumed alcohol 1/wk. had double the injury rate of nondrinkers - 55% vs. 24% (O'Brien & Lyons, 2000)
- 37% reported having gone to a practice or contest under the effects of recent excessive alcohol use (hangover). (N=281) (Brenner et al., unpublished)



Slide 8

## Problems: Athletic Performance



Decreased performance levels (O'Brien & Lyons, 2000)

- Shorter time to exhaustion
- Slower timed distance


✓ Any alcohol consumption 24 hrs. prior significantly alters aerobic performance  
Avg. = 11.4% (O'Brien 1993; +4 other studies)

Slide 9

### Alcohol Related Unintentional Injury

35.7% of student-athletes surveyed 'agree' (SA/A) that ARUI is a serious problem in college athletes; another 34.5% were 'neutral'.

38.9% of student-athletes surveyed have gone to a practice or game 'hung over'.



Slide 10

### Signs & Symptoms of Alcohol Use for Athletes - not your typical "drunk"

- it is a depressant which slows down cognizant and physical abilities,
- affects one's ability to train at higher levels,
- decreases focus and concentration,
- creates a lack of stability,
- decreases muscle, creates lack of motivation, fatigue and stamina,
- takes athletes longer to recover from workouts, practices and races.

Slide 11

### Consequences

College student-athletes: *more likely* to experience negative consequences as a result of alcohol consumption (Leichliter et al., 1998; Nelson & Wechsler, 2001); especially among team leaders (Leichliter et al., 1998)

Hangovers, crime, academic failure, regretting one's actions, **injury**



**In season or off season!**

**Crime**

Slide 12

What can we do about it?

*Coaching works... even when you think it won't.*

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Slide 13

Brief Interventions

1. Provide feedback – address behavior only. (assertive, not aggressive)
2. Emphasize athlete's responsibility
3. Be empathetic and someone who cares (reflective listening)

Slide 14

Brief Interventions

4. Offer help/support – KNOW where to get it immediately!
5. Be prepared for ambivalence, anger & denial
6. Every intervention is successful even if it doesn't appear as though it is

Slide 15

**“Not everything that is faced  
can be changed, but nothing  
can be changed until it is  
faced.”  
James Baldwin**

Slide 16

### Motivational Interviewing (MI)



Slide 17

### Founding Fathers

William Miller, PhD

Stephen Rollnick, PhD




Slide 18

## MI Defined

“ A collaborative, person-centered, form of guiding to elicit and strengthen motivation for change.”

Something I have been thinking about changing, but have not gotten around to yet!




([www.motivationalinterviewing.org](http://www.motivationalinterviewing.org))

Slide 19

## MI - What is it?

- Interviewing style that is person-centered (holistic) & non-coercive
- Respectful
- Works to reduce ambivalence to change in many areas of an individual's life

(Overview of Motional Interviewing downloaded at [www.motivationinterview.org](http://www.motivationinterview.org))



Slide 20

## Health



Slide 21

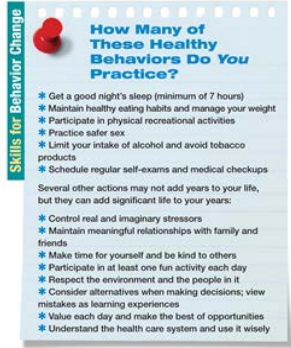
## Six Dimensions of Health

- **Physical**
  - all things body related (size, balance, susceptibility to disease)
- **Social**
  - Friends, family, partners, etc.
- **Emotional**
  - Resiliency (how do you handle your feelings?); expression
- **Spiritual**
  - Religion? Feelings of unity with environment, nature; value in life
- **Mental/Intellectual**
  - Ability to think clearly, reason objectively, engage in rational thinking, analyze critically, learn from success & failure
- **Environmental**
  - Not just the trees, grass, air we breathe, but who are you allowing to occupy your space – negative nellys/nelsons or positive, uplifting people?

▫ **Need a balance among all! Holistic!**

Slide 22

## Changing Your Health Behaviors



**Skills for Behavior Change**

**How Many of These Healthy Behaviors Do You Practice?**

- \* Get a good night's sleep (minimum of 7 hours)
- \* Maintain healthy eating habits and manage your weight
- \* Participate in physical recreational activities
- \* Practice safer sex
- \* Limit your intake of alcohol and avoid tobacco products
- \* Schedule regular self-exams and medical checkups

Several other actions may not add years to your life, but they can add significant life to your years:

- \* Control real and imaginary stressors
- \* Maintain meaningful relationships with family and friends
- \* Make time for yourself and be kind to others
- \* Participate in at least one fun activity each day
- \* Respect the environment and the people in it
- \* Consider alternatives when making decisions; view mistakes as learning experiences
- \* Value each day and make the best of opportunities
- \* Understand the health care system and use it wisely

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Slide 23

## Changing Your Health Behaviors

- **Factors influencing behavior change**
  - **Predisposing**—life experiences, knowledge, cultural and ethnic heritage, and current beliefs and values
  - **Enabling**—skills and abilities, physical, emotional, and mental capabilities, community and government priorities, and safe and convenient facilities
  - **Reinforcing**—presence or absence of support, employer actions and policies, community resources, and access to health care

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Slide 24

## How does MI work?



em-pa-thy: imaginative projection of one's own consciousness on another person

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© The Glasgow School of Health Sciences, University of Glasgow

Slide 25

## Spirit of MI

- **Collaborative:** working together with athletes to explore behavior in question; they talk, you listen & guide
- **Evocative:** evokes motivation to change, starting with the skills & goals they already have
- **Honoring Athlete Autonomy:** athletes need to feel they are responsible for their own change
- **R. U. L. E.** (Resist, Understand, Listen, Empower)

PATCH Adams <http://www.youtube.com/watch?v=G0yU-YJ6sjY&list=PLD95671AA97764D32>

(Rollnick, S. Miller, & W. Butler, C. (2008). *Motivational interviewing in health care*. New York: Guilford Press, pp. 6-10)

Slide 26

## Technique & Skill

- **Asking**
  - DARN (Desire, Ability, Reason, Need)
  - OARS (open ended questions, affirm, reflect & summarize)
  - Pros & Cons list
- **Listening**
  - Perspective & Experience
  - Opening invitation
  - Silence your inner chatter
  - Reflect back with summary of what you heard

**DO ALL WITH GENUINE WARMTH AND CURIOSITY!!!**

(Rollnick, S. Miller, W., & Butler, C. (2008). *Motivational interviewing in health care*. New York: Guilford Press.)

Slide 27

## 5 Principles of MI -Skill Building

1. Empathy
2. Developing discrepancy
3. Avoiding Argument
4. Rolling with resistance
5. Self-Efficacy of the athlete

Slide 28

## Assess your MI skills

[http://www.youtube.com/watch?v=SvqjTOnp\\_SM](http://www.youtube.com/watch?v=SvqjTOnp_SM)

Slide 29

## Duty of Care

- a *legal* obligation on the part of a coach to ensure that athletes are completely ready to participate in a practice, workout, or game through progressive instruction.
- Duty of Care is further defined as all the reasonable steps a coach must take to prevent injury to athletes, "including ensuring participants are prepared for all aspects of the activity by means of progressive instruction" (Grossman, 2009, p. 13).
- Palamer (2011) suggests that what makes a claim of negligence successful is there must be: "a duty of care owed, a breach of the duty of care, and foreseeability and causation of injury" (p. 8).

Slide 30



Slide 31

Are you willing?

- To practice these skills and let me know how you are doing?
- To participate in a one month follow up, please write your contact information at the bottom of your post test (color sheet).
- PRACTICE, PRACTICE, PRACTICE.....

Slide 32

**Thank you!!!**

## APPENDIX J

### ADD A WORD ACTIVITY WORKSHEET

#### ADD A WORD

TOPIC AREAS: Diversity, Working Together

CONCEPT: When there is a problem to solve or a discussion about a topic, the more people that provide input the better the outcome. People bring a wide variety of experiences to any given situation. These experiences can help to see things in a different light or to provide a different viewpoint. If everyone works alone with only their own experiences to draw upon, then they have a very narrow reservoir of knowledge to draw upon. Even if they work with others who have had the same kinds of experiences and background that they have, the pool of knowledge is still somewhat limited.

METHOD: Classroom activity

TIME NEEDED: 15 minutes and discussion time

MATERIALS NEEDED:

One piece of paper and a pen or pencil for each team of three

A watch with a second hand

ACTIVITY: Divide your group into teams of four. Give each team a piece of paper and a pencil or a pen. Explain that the object of this activity is for each team to create the longest sentence that they can. You will give them the first few words to the sentence. Each person will then take turns adding one word at a time to the sentence. The sentence must make sense and it must come to a logical ending. The paper and pencil must be passed from person to person as they add their word. They may not talk at all during this part of the activity. They will have sixty seconds to complete their sentence. Call out the time so they will know how long they still have to write.

After you have called time, have each group count up the number of words that they used including the words that you gave them to start with. Have them write this number to the side of their sentence. Have each group tell how many words they used. Ask for volunteers to read their sentence aloud. Repeat this process three or four times. Here are some of the sentence starters that I have used.

The cow jumped...

A worm crawled...

A loud crash...

People who are...

The next time...

## APPENDIX K

### EIGHT TASKS IN LEARNING MI

#### **Eight Tasks in Learning Motivational Interviewing**

This is content from Miller and Moyers (2006) that can be useful in conceptualizing training. Where is the trainee or audience currently in this developmental process? What tasks will be addressed in this training? These tasks can also provide a framework for developing a sequence of training.

1	Overall Spirit of MI	Openness to a way of thinking and working that is collaborative rather than prescriptive, honors the client's autonomy and self-direction, and is more about evoking than installing. This involves at least a willingness to suspend an authoritarian role, and to explore client capacity rather than incapacity, with a genuine interest in the client's experience and perspectives.
2	OARS Client-Centered Counseling Skills	Proficiency in client-centered counseling skills to provide a supportive and facilitative atmosphere in which clients can safely explore their experience and ambivalence. This involves the comfortable practice of open-ended questions, affirmation, summaries, and particularly the skill of accurate empathy as described by Carl Rogers.
3	Recognizing Change Talk and Sustain Talk	Ability to identify client "change talk" and commitment language that signals movement in the direction of behavior change, as well as client sustain talk. Preparatory change talk includes desire, ability, reasons, and need for change, which favor increased strength of commitment.
4	Eliciting and Strengthening Change Talk	Ability to evoke and reinforce client change talk and commitment language. Here the client-centered OARS skills are applied strategically, to differentially strengthen change talk and commitment.
5	Rolling with Sustain Talk and Resistance	Ability to respond to client sustain talk and resistance in a manner that reflects and respects without reinforcing it. The essence is to roll with rather than opposing it.
6	Developing a Change Plan	Making the transition into Phase 2 of MI. Ability to recognize client readiness, and to negotiate a specific change plan that is acceptable and appropriate to the client. This involves tuning as well as negotiation skills.
7	Consolidating Commitment	Ability to elicit increasing strength of client commitment to change, and to specific implementation intentions.
8	Transition and Blending	Ability to blend an MI style with other intervention methods and to transition flexibly between MI and other approaches.

Sources: Miller, W.R. & Moyers, T.B. (2007). Eight stages in learning Motivational Interviewing. *Journal of Teaching in the Addictions*, (5), 3-17.

*Motivational Interviewing Network of Trainers, Training for New Trainers (TNT), Resources for Trainers, 2008.*