

Health Promotion in Coaching: Possibilities for Improving the Profession

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Abstract

Coaching is a dynamic field in which many forms of health promotion occur directly and indirectly on a daily basis. It would therefore be of interest to determine the extent to which research-based data has been collected pertaining to health promotion and its influence throughout coaching. Thus, the purpose of this study was to inductively analyze research-based data pertaining to health promotion in coaching to discover the major topics and the extent to which research has been performed in this area. An extensive online database search revealed 13 articles directly pertaining to health promotion in coaching which were ultimately categorized by (a) year; (b) research methods; (c) author continent of origin; (d) publication outlets; (e) research focus; and (f) data collection methods. The three themes that were isolated from the limited research studies of health promotion in the coaching profession included (1) the coaches' ability to increase athlete chemical health ($n=7$); (2) the effects coaches can have on an athletes' physical and psychological well-being ($n=4$); and (3) the need for more educational efforts to help coaches learn about the negative athlete behaviors that are highly preventable ($n=2$).

Key words: *Coaching, Health Promotion, Athlete, Well-being.*

Introduction

There is a wealth of literature discussing (directly and indirectly) the variety of applicable needs and uses of health promotion in the coaching profession; unfortunately, very little of this literature is research based. The vision that the athletes hold for the coach as a leader and role model in an extremely impressionable time in the athletes' lives can allow the coach to more effectively transfer information that will be utilized simply because the "coach" said so.¹ It is therefore vitally important to the health of athletes to directly include aspects of health promotion in coaching training to increase the coaches' awareness of specific factors and give them the tools necessary to help athletes make informed decisions.

Although many coaches perceive their athletes as healthy individuals, participation in athletics does not necessarily indicate that an individual is living a healthy lifestyle. For example, a person with anorexia nervosa may participate in athletics, but tend to carry the principles of exercising and dieting behaviors to a dangerous extreme that can eventually lead to death.² The negative behavior of anorexia nervosa can be reversed, but as Hornak, Hornak, and Cappaert³ suggest; many athletes with eating disorders go unnoticed resulting in impaired health and performance, simply because the athletic trainers were not prepared to effectively respond to those athletes with the eating disorders. By recognizing the problem or identifying symptoms, referring the athlete for professional evaluations, and reinforcing the identified strategies and behaviors; unhealthy behaviors such as eating disorders can be alleviated.⁴

In regard to dietary supplements, athletes will be tempted to use "legal" dietary supplements to improve performance, and coaches should be informed of the positive and negative aspects of many popular supplements to better inform the athletes of the effects they can have on the body.⁵ With younger athletes being the primary market for supplementation, the vast majorities of athletes learn about supplements from friends and may not be informed of the positive and negative effects of the supplements.⁶ Coaches are typically required to meet minimal, if any, standards of knowledge related to teaching, coaching, and the needs of children⁷, yet "the coach has an opportunity like no one else to inspire young people and to change their lives and channel their energies into a positive direction".⁸ Given the unmistakable influence these individuals have over the youth they teach, it appears evident that

coaching certification programs should not only be mandatory; but also include components of health promotion (including supplementation use and abuse) as well.

Coaching certification programs include prerequisite requirements of knowledge and understanding of specific aspects of sport and exercise before assuming coaching positions and would provide a great outlet to distribute information concerning health promotion. As the demands and competition in the coaching profession have increased, so has the overall participation in coaching certification programs on a global scale.^{9,10} While this appears to be a positive trend on the surface, there are no clear distinctions identifying what knowledge and understanding is required to be considered as a certified coach and therefore a large amount of helpful information is omitted from the certification programs.¹⁰ However, the designers of certification programs are subsequently given more autonomy in the creation of the programs and could therefore relatively easily to implement components of health promotion into the certification program.

As technology increases, so does the sedentary lifestyle of people (young and old) which decreases health and overall well-being.¹¹ Coaches can implement technology such as motion video games and GPS scavenger hunts into their activities to reach out to the different populations while increasing physical activity and the promotion of a healthy lifestyle. Many of the aspects of health promotion in coaching can be implemented in staff development to foster professional growth and to ensure that effective health education programs achieve their potential for long-term student impact.¹² A young athlete's health and well-being should ultimately be the main concern for all coaches and parents¹³, and therefore knowledge and skills that effectively promote health and well-being should be utilized by coaches to encourage athletes to make positive decisions, but as the results of this literature review demonstrate; there is a dearth in research based literature pertaining to the coaches' involvement in health promotion.

Methods

The articles pertaining to health promotion in the profession of coaching were identified through online searches which resulted in the emergence of various journals. The search included the use of electronic databases such as Academic Search Premier, Current Contents, EBSCOhost, Education Full Text, ERIC, Physical Education Index, PsycINFO, and Web of

Science. Upon the completion of the online search, a physical journal search produced hard copies of the articles that were relevant to this study. A full list of the journals used in this study is available in Table 1.

The article search was limited to English journals due to the fact that it is the author's native tongue. The articles were also limited to research articles pertaining to health promotion and coaching. Once the relevant articles were gathered, they were categorized in spread-sheet format and analyzed based on specific criteria relevant to the study. The categories for analysis were designed in an effort to most effectively determine commonalities while minimizing over-lapping articles. The criteria used to distinguish the categories of articles included (a) author name, (b) continent of origin, (c) methods, (d) publication outlet, (e) research approach, (f) research focus, (g) themes, and (h) year of publication. Finally, the references for each of the pertinent articles discovered in the study were also used to isolate additional articles relevant to the study.

Results

An analysis of the articles relating to health promotion and coach education produced a significantly low number of articles ($n=13$). All of the articles were published within the past 20 years (1991-2007) with 1999 ($n=2$) and 2000 ($n=2$) the only years with multiple publications (Figure 1). The research approaches used in the articles were predominantly uniform in the fact that 76.9% were qualitative ($n=10$) and 23.1% utilized a quantitative approach ($n=3$) (Table 1). The vast majority of the authors publishing research pertaining to health promotion in coaching are from the continent of North America ($n=12$). The other author is from Europe ($n=1$). This can also be observed as 92.3% of the research of health promotion in coaching comes from North America while 7.7% is from Europe (Table 1).

Research on health promotion in the coaching profession has appeared in a variety of journals, but there are only two journals with multiple articles relating to this topic ($n=2$) while all other journals have only a single article. A full list of the journals and the number of published research articles pertaining to health promotion in coaching are presented in Table 1.

The variety of topics discussed in these articles can be sub-divided into six categories of research focus.

There were five articles ($n=5$) pertaining to the use of alcohol and tobacco by athletes which composed 38.5% of the total. Three articles ($n=3$) discussed the effects of eating disorders and composed 23.1% while two articles ($n=2$) were related to athlete injury at 15.4%. The remaining articles made up 23.1% of the total with the individual research foci of: athletes with HIV ($n=1$); athlete sun exposure ($n=1$); and athlete supplement use ($n=1$); composing 7.7% each (Figure 2). With the dearth of articles pertaining to health promotion in coaching, there was a relatively consistent use of data collection methods. The vast majority of the articles utilized questionnaires ($n=10$) and surveys. A couple of the articles used literature reviews ($n=2$), while the remaining article used interviews as the method of data collection ($n=1$). These methods are presented in Figure 3.

The thirteen articles relating health promotion to coaching were categorized into three major themes. These major themes consisted of (a) increasing athlete chemical health; (b) athlete physical and psychological well-being; and (c) coach education to help prevent negative athlete behaviors. More than half of the articles (53.8%) related to the coaches' ability to increase athlete chemical health ($n=7$) followed by one-third of the articles (30.8%) which discussed the effects coaches can have on an athletes' physical and psychological well-being ($n=4$), and an even smaller proportion (15.4%) relating to the need for more educational efforts enabling coaches to learn about the prevention of negative athlete behaviors ($n=2$). The distribution of articles representing each of the themes is displayed in Figure 4.

Discussion

While health promotion literature is quite extensive, it is lacking in both direct and indirect aspects of research-based data as it pertains to coaching. The major findings of the published research did however uncover themes relating to health promotion in coaching that will be used to clarify the benefits of incorporating these findings into coaching as well as implications for future research. The three themes that were discovered include (a) the need for coach education as it relates to the prevention of negative athlete behaviors; (b) the effects coaches can have on the physical and psychological well-being of their athletes; and (c) the influence coaches have on athletes and how that influence can affect the chemical health of athletes. Finally, implications for future research are addressed along with conclusions

pertaining to the 13 articles concerning health promotion in coaching.

Need for Coach Education Relating to Negative Athlete Behaviors

The coaching process can be viewed as a science as well as an art, but when coaches do not understand how to prevent, treat, or alleviate negative behaviors of athletes; both the science and art of the profession become vague. A literature review analyzing adolescent and adult female athletes indicated that elite athletes as well as physically active women suffer from components of the female athlete triad.¹⁴ This was further corroborated in a study of 37 female collegiate athletes and 18 female non-collegiate athletes which indicated that coaches and physical educators should include instruction on the health effects of menstrual irregularities and eating disorders in an effort to reduce these rates.¹⁵ However, if coaches are not trained in this area and do not have the skills to intervene in problem situations or provide prevention information, they tend to perpetuate the problem.¹⁶ Information on vitamins and minerals that build bone, proper nutrition, the importance of moderate physical activity, the avoidance of harmful chemicals such as alcohol and tobacco, and recognizing eating disorders are critical parts of health instruction according to a literature review of the effects of supplementation.¹³ However, the articles discovered in this review were unsuccessful in resolving the utilization of pertinent health promotion information in coaching education.

The promotion of cancer screening has been a tool of health education programs for a long time, but it appears that many preventative routines like sun protection have been ignored.¹⁷ Parrot et al.¹⁷ studied 12 coaches, 60 parents, and 61 youth soccer players to determine that the fact that caregivers were not limited by financial resources or time to practice sun protection was not an issue, but they simply lacked the specific procedural knowledge about proper sun protection. The lack of procedural knowledge once again illustrates the need for coach education programs to directly identify negative athlete behaviors and instruct coaches in ways to recognize, modify, and prevent those behaviors.

Athlete Physical and Psychological Well-Being Affected by Coaching

While some might argue that the athlete owns his or her body and is therefore ultimately responsible for its care and the choices and consequences related to that care, coaching decisions and medical decisions

are not typically seen as the athlete's prerogative as demonstrated in Thomas' literature review.¹⁸ This "sharing" of control between the coach and athlete develops into professional power relationships which entails certain obligations to promote the good and do no harm.¹⁸ According to the results of interviews with collegiate athletic directors and head athletic trainers, specific administrative policies should thus be implemented that directly and indirectly affect the athlete's physiological and psychological well-being in the promotion of positive behaviors.¹⁹ "Competition often is equated with winning and losing, which can negate the constructive outcomes of sport participation"^{20(pg315)} and lends itself to a decision making process that can place value on winning and losing rather than the athlete's well-being.

Many sports focus on strength and power to dominate their opponents which may also have serious consequences (especially in female athletics) leading to health-compromising behaviors such as eating disorders, performance-enhancing drugs, and overtraining.²⁰ This was revealed in a literature review that further emphasized that some coaches erroneously promote the fact that athletes must make sacrifices to win and that good things happen to "winners" which creates the expectations that "real" athletes should want to win, no matter what the cost.²⁰ This expectation can place a heavy burden on the athlete both emotionally and physically in which negative behaviors can be adopted through an attempt to feel successful, while the coach indirectly and perhaps unknowingly promotes such behaviors.²¹ Research involving interviews of 31 injured collegiate athletes (15 male and 16 female) indicated that the athletes' responses to these coaching behaviors may vary by gender in which female athletes reported a greater negative experience with injury than the male athletes.²¹ This study also revealed that the female athlete was left feeling unsupported and isolated when an injury occurred and reduced amounts of highly valued feedback from the coach was responsible for a decreased tendency to discuss future implications of the injury on their health. Granito, Jr.²¹ further recognized the culture in which athletes were rewarded for playing in pain and taking risks, which made it more enticing for the male athletes to "suck it up" and focus on the glory of here and now. Behaviors such as these expose the enormous obligation for the coach to identify the possible debilitating negative behaviors and ultimately prevent the athlete from exacerbating the injury.

Quite often preventing the athlete from training or competing is easier said than done. The rewards that an athlete may gain while successfully competing injured can create an environment where athletes are willing to sacrifice their own health and well-being to achieve sport success, in which case they may not tell the coach of an injury or demand that they train and compete regardless of the injury.²⁰ Coaches are viewed as the final arbiter of what is considered to be in the best interest of the athlete, but with the high demand for athletic success there is an increasing reluctance of the coach to make decisions that will affect the team's performance regardless of the health implication for the athlete.¹⁸ Thomas¹⁸ emphasized the notion that the coaches' personal playing history may be a pitfall that allows them to empathize with the athlete's desire to return to play even if it is the coaches' responsibility to protect the athlete, and sometimes protect the athlete from their own decisions. It is therefore essential that the coach keeps the athlete's physical and emotional well-being in mind with all decisions that can both directly and indirectly affect the health of the athlete.¹⁸ In order to do this, the coach must have the knowledge and skills to effectively promote more positive physical and psychological behaviors, which relies heavily on the type of coaching education program, if any, he or she completed.

Coaching Aspects Affecting Athletes' Chemical Health

Chemical health problems associated with athletes can be directly affected by the coaches' intervention skills according to questionnaire responses of 218 high school athletic coaches.²² Since more opportunities to practice intervention skills helps to build greater intervention confidence and therefore more effective transfer to athletes, educators and sport psychologists need to encourage administrators to allot more meaningful time to chemical health education practices.²² Another study involving 50 female collegiate basketball players concluded that while alcohol consumption and the use of weight-loss products are similar between some athletes and the general college student population, the powerful influence the coach has on the behavior of the athletes may significantly reduce these rates if the coaches were better informed on how to address these problems.²³

Students and student athletes at 140 American Universities participated in a mailed survey that lead Wechsler & Davenport²⁴ to suggest that coaches should enlist in campus-wide drug prevention campaigns (because of their influences with athletes)

in an effort to increase students' overall chemical health. Specific predictors of increased binge drinking of athletes include living in a fraternity or sorority house, viewing parties as important, and having binged in high school; but research also indicated that if athletes can understand that a behavior will hamper their performance, they will typically forego that behavior.²⁴ Further, a study involving 141 boys and 141 girls 14 years of age who participated in a 42 variable questionnaire revealed that individuals involved in sports were also more likely to give up negative chemical health behaviors and succeeded in doing so, due to the impact it had on health and physical conditions.²⁵ On the other hand, questionnaires from 742 high school athletes concluded that athletes who believed that specific substances, such as supplements, would improve their performance were more likely to use those substances and took them more regularly, regardless of their negative effects.²⁶ Once athletes have a better understanding of the relationship between food, energy, vitamins, minerals, and physical performance they are more likely to depend less on supplementation and focus on a proper diet.²⁶ With this in mind, coaches trained in chemical health can better discuss the importance of modifying these negative behaviors and help their athletes make informed decisions pertaining to their chemical health.

Collegiate athletic trainers spend considerable time with athletes and can therefore be instrumental in identifying and helping athletes with behaviors that can negatively affect their health.²⁷ In their capacity as a mentor to athletes, coaches should also be aware of and concerned about the lifestyle choices facing their athletes and discuss these issues with them on a regular basis for the athletes to be aware of the short-term and long-term effects of poor chemical health.²¹ Based on the analysis of a self report survey of 358 female collegiate athletes, Gutgesell et al.²⁷ suggested that schools with adequate support systems which included educating the coaches, athletic trainers, and athletes on the signs and symptoms of alcohol abuse and eating disorders could help athletes avoid or deal with problem eating and drinking behaviors. It was evident however, that support systems and training coaches did not eliminate the problems entirely and these programs needed to be developed, implemented, and evaluated in order to be effective; according to the results of a mailed survey involving 506 male and female middle and high school athletic coaches.²⁸

Implications for the Future

Research pertaining to health promotion and education in coaching is an area that should be explored further. Although there are some articles discussing the implications of health promotion in the coaching process and even fewer research-based articles, it would greatly benefit the coaching profession to directly study the various impacts of health promotion in coaching to better understand how to help athletes make informed decisions concerning their health. The broad field of health promotion in athletics appears to create limitless possibilities for future research. With increasing amounts of time spent with coaches, athletes gain constant information from the words and actions of their coaches which can have a positive or negative impact on the decisions athletes make regarding their health. This interaction and the diversity in athletics allows coaches to directly and indirectly affect many of the decisions athletes make, and more research needs to be conducted to determine if coaches are equipped with the knowledge and skills to transfer information to their athletes in an effort to encourage positive healthy behaviors.

Conclusion

Much of the research in health promotion in coaching related to the influences coaches have on their athletes. These influences can be categorized into three major themes that include (a) athlete chemical health; (b) athlete physical and psychological well-being; and (c) the need for more education relating to the coaches ability in preventing negative behaviors. The apparent dearth in research-based articles was possibly attributed to the indirect messages relating health to athletics and a lack of understanding by the coaches of their influence over the personal lives of their athletes and not just their athletic ventures. To better train coaches in ways to positively affect athletes in competition and in life, it is necessary for the coaches to have more formal training in health promotion. Therefore, coaches will be better equipped to enhance the physical skills of their athletes in the particular sport as well as share skills and information allowing the athletes to make informed decisions relating to their personal health and hopefully increase positive behaviors.

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Table 1 Publication Outlets and Percentages

Journal Title/Number	Study Method	Author's Continent of Origin
<i>Journal of American College of Health-2</i>	Qualitative-76.9%	North America-92.3%
<i>Quest-2</i>	Quantitative-23.1%	Europe-7.7%
<i>Adolescence-1</i>		
<i>College Student Journal-1</i>		
<i>Health Education & Behavior-1</i>		
<i>International Journal of Physical Education-1</i>		
<i>Journal of Athletic Training-1</i>		
<i>Journal of School Health-1</i>		
<i>Journal of Sport Behavior-1</i>		
<i>The Physical Educator-1</i>		
<i>The Sport Psychologist-1</i>		

Figure 1 Number of Articles Published for Health Promotion and Coach Education

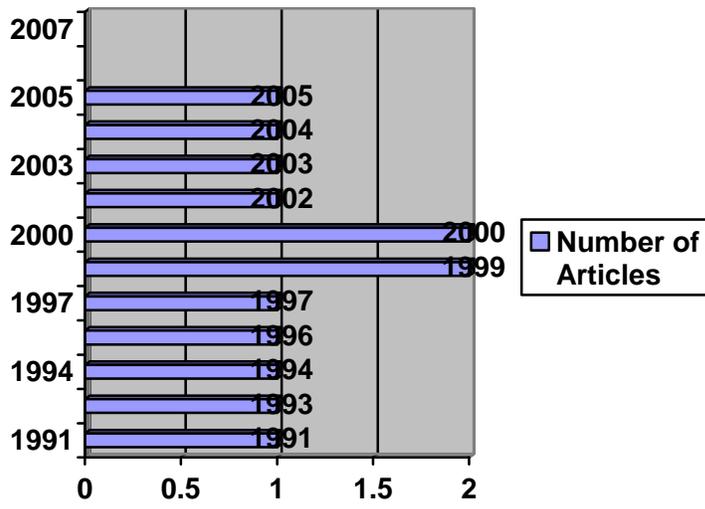


Figure 2 Research Focus

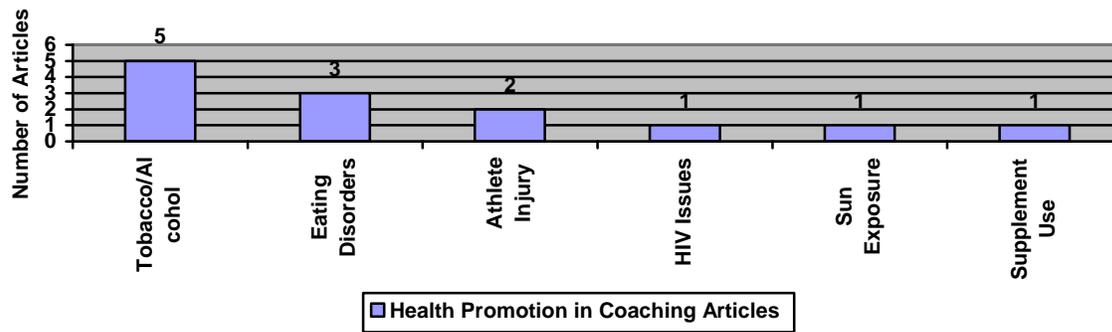


Figure 3 Data Collection Methods

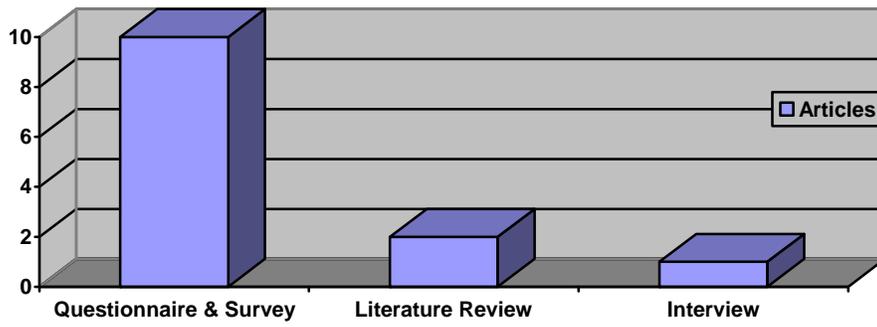


Figure 4 Major Themes

